

BURO HAPPOLD

STŌK CAE RAS STADIUM: KOP Stand Contractor

Verification Report (Part A – Groundworks)

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1 Introduction

1.1 Report scope

This Verification Report was prepared by Buro Happold on behalf of Wrexham AFC to support the discharge of Wrexham Country Borough Council (WCBC) Planning Conditions 6 and 7 (see Section 1.3) relevant to the Kop Stand redevelopment.

This Verification Report (Part A – Groundworks) has been prepared in general accordance with UK guidance for Land Condition Risk Management (LCRM) [1] and to meet the requirements of the National Planning Policy Framework [2]. The report has considered the programme of investigation and works related to the development [3] [4] [5] [6] [7]. As detailed in the recommendations or the approved remediation strategy [3], the verification activities are being reported in several parts. This report (Part A – groundworks) has been prepared further to the completion of the main programme of below ground works. The second part (Part B – Landscaping) will be prepared on completion of the landscaping and below ground infrastructure. Part B report will also capture any additional waste disposal records that may be generated during the installation of landscaping. Accordingly, this report is to be submitted to WCBC for their consideration with respect to the partial discharge of Condition 6 and the full discharge of Condition 7.

1.2 Objectives

This report provides evidence of the successful completion of the initial elements (Part A – Groundworks) of the approved remediation measures listed in the Contaminated Land Interpretive Report [3]. This report demonstrates that the relevant remediation objectives and criteria have been met and support the discharge of the relevant planning conditions. This report also reflects the nature of the development activities (including areas of soft landscaping) and the approved remediation measures [3].

1.3 Relevant conditions

This report has been prepared to address the requirements of the WCBC with respect to land affected by contamination in relation to the Planning Conditions 6 and 7 of the planning permission presented below.

Planning Condition 6 *– Prior to the first use of the development a verification report demonstrating completion of works set out in the approved remediation strategy and the effectiveness of the remediation shall be submitted to and approved in writing by the Local Planning Authority. The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met. It shall also include a long-term monitoring and maintenance plan for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action, as identified in the verification plan. The long-term monitoring and maintenance plan shall be carried out in accordance with the approved details.*

Planning Condition 7 *– Prior to the occupation or operation of the development, a long-term monitoring plan for land contamination shall be submitted and approved in writing by the Local Planning Authority. The long-term monitoring plan should include:*

- *Details of the methods and triggers for action to be undertaken;*
- *Timescales for the long-term monitoring and curtailment mechanisms e.g. a scheme of monitoring for 3 years unless the monitoring reports indicate that subsequent monitoring is not required;*
- *Timescales for submission of monitoring reports to the LPA e.g., annually; and*
- *Details of any necessary contingency and remedial actions and timescales for actions*
- *Details confirming that the contingency and remedial actions have been carried out.*

The monitoring plan shall be carried out in accordance with the approved details, within the agreed timescales.

1.4 Competencies

The work reported here was carried out by an appropriately qualified geoenvironmental scientist and geotechnical engineers with relevant qualifications, training and experience engineers from Buro Happold. Buro Happold is a consulting engineering company that manages its work under various Quality Management Systems that are certified to ISO 9001. The work has been overseen by an Associate Engineer with substantial experience in the assessment of land affected by contamination who is a C.WEM.

1.5 Limitations

The principal sources of information for this Verification Report include information obtained from third parties. The third-party data has been accepted at face value and has not been independently verified. Buro Happold can therefore give no warranty, representation of assurance as to the accuracy or completeness of such information.

1.6 Responsible parties

The parties with responsibility for the various elements of verification activities are summarised in Table 1-1. Ramboll prepared a Contaminated Land Interpretive Report [3] which defines remediation measures. P.P. O'Connor undertook the initial earthworks, including a reduced level dig and construction of the piling mat. Green Piling Ltd. were responsible for piling and constructing the piling caps with MPB responsible for the remaining elements of the foundation. Buro Happold prepared the consolidated Verification Report related to Phase 4 groundworks.

Table 1-1 - Parties with responsibility

Name	Role	Description of responsibility	Contact information
McLaren Group	Developer	Overall responsibility for all activities related to the development	Site Office Wrexham F.C. Kop Stand, Crispin Lane, Wrexham, LL11 2BY 020 7078 6963
P.P. O'Cconnor	Contractor	Earthworks contractor	61 Mosley Road Trafford Park Manchester M17 1GJ 0161 776 0333
Green Piling Ltd	Contractor	Piling contractor	Smithy Brook Rd, Renishaw, Sheffield S21 3JS 01246437340
MPB	Contractor	Foundation contractor	7th Floor Neo, 9 Charlotte St, Manchester, M1 4ET 0161 631 2740
Ramboll	Consultant	Developed Verification Plan	240 Blackfriars Rd, London, SE1 8NW 02076315291
Buro Happold	Consultant to McLaren	Management of verification and preparation of Verification Report	The Featherstone Building 66 City Road London, EC1Y 2AL

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2 Background information

2.1 General

This Chapter presents a brief summary of the Kop Stand development site's context and conditions, consideration of which has enabled the definition of the Verification Plan [3] and informed this Verification Report. This summary has been prepared from source information, the references to which are presented at the end of this report.

2.2 Site setting

The Wrexham AFC Kop Stand development covers some 3.1ha and is within the grounds of the existing Wrexham AFC stadium, immediately north of the A541 Mold Road in Wrexham. It is bounded by the Wrexham AFC stadium to the west, a vacant area to the north with student accommodation beyond, a vacant area to the east adjacent to Crispin Lane, and car park to the south. The stadium is located approximately 180m northwest of Wrexham Railway Station.

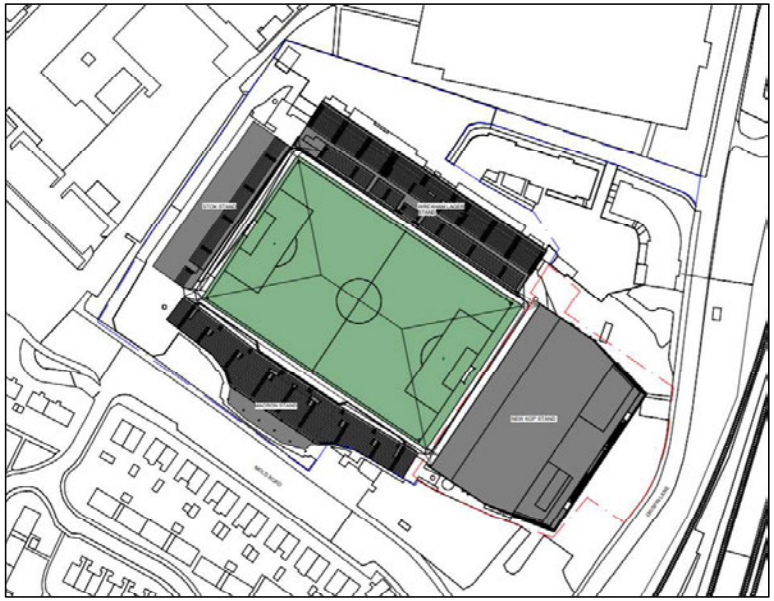


Figure 2—1 Location of Kop Stand (south-east) redevelopment site at the Racecourse Ground

2.3 Site History

The following summary of the site history has been derived from the previous desk study reports [4]. On site, the southern area was used as a 'race course' during the end of the 19th century. From 1910s, the western area was used as a football ground. Earthworks associated with the football ground increased by the late 1930s and a building was developed in the east. Terraces associated with the Race Course (Wrexham FC) football ground are shown from the late 1950s. The surrounding area included a bowling green to the south and a garage to the southeast. A stand was built by the late 1960s with associated lighting towers at the northern and southern end of the site. From the 2000s, the east of the site comprised a stand area of soft cover.

2.4 Development

The proposed development comprises a new standing terrace with the capacity for up to 5,500 spectators, including space for hospitality, player and coaching facilities, press and media space, shop, and back of house areas. The majority of the site will be covered by the building footprint and hardstanding.

2.5 Ground conditions

The Site is underlain by superficial deposits comprising Glaciofluvial Sheet Deposits with sandstone bedrock from the Etruria Formation, part of the Warwickshire Group. An unnamed fault crosses the site in an east-west direction. Made Ground was encountered in most exploratory holes up to a maximum thickness of 3.45m. The Glaciofluvial Sheet Deposits were recorded beneath the Made Ground between 0.10-3.45m below ground level (bgl). Both the Glaciofluvial Sheet Deposits and Etruria Formation are classified as Secondary A Aquifers. Groundwater levels ranged between 8.70m to 11.50m bgl located within Glaciofluvial Sheet Deposits.

2.6 Previous reports / site investigation

A summary of the previous work undertaken related to ground conditions is presented below:

- In 2022, Ramboll undertook a Geotechnical and Contaminated Land Desk Study to present available information pertinent to preliminary geotechnical and geoenvironmental recommendations, risks and constraints associated with the ground and groundwater conditions [4]
- In 2022 and 2023, Geotechnics Ltd undertook a phased ground investigation on behalf of Ramboll to inform on pre-demolition investigation for the floodlight foundations and post-demolition investigation to inform construction of the new stand and external works [5]
- On completion of the ground investigation, a Contaminated Land Interpretive Report was produced by Ramboll in 2023, including a Verification Plan [3]
- In 2025, Geotechnics Ltd undertook a ground investigation to obtain information on the ground and groundwater conditions relating to the design of the Kop stand. The investigation comprised hand-dug observation pits, dynamic sample boreholes and cable percussion boreholes with in situ and laboratory testing and reporting [8]
- In 2025, Buro Happold reviewed the work relevant to land contamination to confirm the suitability of existing documentation for the current development proposals [6]
- Following an update to the BRE 211 guidance [9] and the review of a British Geological Survey GeoReport [7], Buro Happold updated the radon protection measures for the proposed development [7] to align with guidance. In accordance with BRE 211 [9] Buro Happold concluded that no radon protection measures were required in buildings.

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3 Conceptual Site Model (CSM)

3.1 General

The Conceptual Site Model has been determined with reference to the site investigations undertaken by Geotechnics Ltd in 2022-2023 [5] and 2025 [8] and subsequent reports by Buro Happold [6] [7]. A summary of these is presented below.

3.2 Soils

During the 2022-2023 ground investigations, visual / olfactory evidence of contamination was recorded in three samples taken from the Made Ground and one from natural strata. Chemical analytical results of soil samples from the 2022-2023 investigation did not exceed the commercial / industrial end use thresholds. Asbestos was encountered within a single sample of Made Ground present as chrysotile fibre bundles and quantified below the hazardous threshold of 0.1% (by weight). It should be noted that this sample taken outside the Kop Stand boundary. During the Geotechnics Ltd. 2025 works, fragments of asbestos-containing materials (ACMs) were encountered in two observation pits. Two samples were noted to comprise cement debris which upon analysis confirmed the presence of chrysotile asbestos as fibre bundles recorded up to 0.101% weight and 0.240% weight respectively.

3.3 Controlled waters

Maximum concentrations of various determinants in groundwater (copper, zinc, fluoranthene, and chloroform) exceeded adopted Environmental Quality Standards (EQS) assessment criteria (commercial / industrial end). Elevated concentrations of lead, chromium (III, VI), copper, zinc, fluoranthene, and benzo(a)pyrene, and selected TPHs were consistent with soil leachate data, but likely represent background levels. No exceedances were recorded for Drinking Water Standards (DWS) of any of the contaminants. Since piling activities were considered unlikely to create a pathway for contaminant migration and the distances to the nearest surface water features, long term groundwater monitoring was not required [3].

3.4 Ground gas, vapour and radon.

No specific ground gas protection measures were required with respect to the proposed development. As described in Section 2.5 of this report, a Design Note was prepared by Buro Happold [7] that reflected the updated guidance with respect to management of radon [10]. The assessment was conducted in accordance with the relevant British Standard and other good practice guidance for determining the gas regime.

3.5 Summary of pollutant linkages

In the UK, the assessment of risk from contamination follows the source-pathway-receptor (s-p-r) approach as detailed by LCRM [1]. Site specific pollutant linkages have been identified with respect to the sources summarised above and the commercial / industrial end. A summary of the potential pollutant linkages is provided in Table 3-1.

Table 3-1 Summary of identified pollution linkages.

Source	Pathway	Receptors	
Made Ground and localised spills (oil / fuels) vehicles.	Dermal contact / ingestion / inhalation of gas / vapours	**Human health**	Construction workers and future maintenance works
	Dermal contact / ingestion / inhalation of gas / vapours		Future site users
	Leaching to groundwater and groundwater flow	**Controlled waters**	Secondary A Aquifer (Glaciofluvial Sheet Deposits and sandstone bedrock)
	Surface water runoff		Surface water
	Direct contact	**Built environment**	Building and services

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4 Planned Remedial Objectives

Due to the low level of risk that has been identified at the site [3], a remediation option appraisal was not deemed necessary [6]. As such, the Verification Plan detailed in the Ramboll Contaminated Land Interpretive Report [3] was adopted which outlines the supporting information required to demonstrate that appropriate mitigation measures were adopted during the enabling earthworks. The mitigation measures were proposed with the aim that the development itself can be constructed safely and in accordance with the National Planning Policy Framework (NPPF) [2] and follow regulatory requirements.

4.1 Remedial objectives

The overall aim of these mitigation measures are to enable the appropriate management / mitigation of potential risks from contamination at the site to human health (construction / ground workers, future site users, neighbours), controlled waters, below ground infrastructure (including below ground concrete), and ecological systems. The remedial objectives for the site address the pollutant linkages listed in Table 3-1 and can be defined in three categories; (i) contamination related, (ii) engineering related and (iii) management / amenity related. The text below summaries these remediation design measures and / or actions.

Contamination related objectives

1. Workers engaged in the development are not exposed to concentrations of contamination that could give rise to acute risks
2. Future site residents / occupiers / visitors are not exposed to concentrations of contamination that could give rise to acute or chronic risks
3. Soils in areas of soft landscaping meet appropriate physical and chemical criteria
4. The redeveloped site cannot be determined as 'Contaminated Land.

Engineering related objectives

1. Building materials (including concrete foundations) are not subject to chemical degradation
2. Integration of the engineering design with the requirements for remediation (in particular not giving rise to preferential pathways for migration of contamination that could impact controlled waters).

Management related objectives

1. Remedial works undertaken are cost effective
2. To enable discharge of the relevant planning condition(s)
3. To minimise environmental impacts and mitigate 'nuisance' effects to neighbours to acceptably low levels, and the perception of hazard (and blight) associated with the site is removed
4. Spoil material are subject to appropriate off-site removal / disposal.

4.2 Preferred option

Risks from contamination can only exist if there is a source of contamination present, a receptor to be impacted upon and a plausible pathway by which the two may be linked. Breaking the pollutant linkages can be achieved by one or more of the following methods:

(i) Source control (e.g. removal), and/or
(ii) Pathway control or receptor control.

The preferred remediation option for the two verification parts is set out below;

Part A - Groundworks

i. The management of health, safety and hygiene of the construction workforce
ii. The management of the soils arising from excavations
iii. The management of dust (including potential airborne asbestos fibres) during excavation, transport and stockpiling
iv. The management of imported soil materials
v. The management of surface water and run-off
vi. The management of unexpected contamination.

Part B - Landscaping

vii. The management of imported soil materials.

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5 Verification plan

5.1 General

The Verification Plan for the development was published in February 2024 [3]. The planned verification activities from the approved plan are repeated below for ease of reference.

5.2 Lines of evidence

The objective of the verification activity is to demonstrate that the remedial measures outlined in Section 4 have been carried out during the enabling earthworks and construction. The Verification Plan details the following data / evidence required to demonstrate the successful implementation of the remedial measures:

- Name of the Contractor and any relevant Sub-Contractors involved in the earthworks
- Key dates for the project – start of works, excavations, end of works (for example)
- Audit trail to show that materials and wastes have gone to the correct destination
- Document any changes that may have been made to the construction methodology or to the design
- Reference to any further site investigation data, further risk assessments and to any earthworks specification
- Verification testing and comparison to the appropriate assessment criteria as set out in any earthworks specification
- Treatment records (if any)
- Laboratory analysis certificates and appropriate sampling plans
- Waste transfer notes / delivery tickets
- Carrier registration details for waste hauliers and Environmental Permit reference numbers for sites receiving waste from the project
- Record of contingency arrangements that had to be implemented (if any)
- Record of quantity of materials excavated, removed from site, and imported to site
- For imported soils, evidence that the material is sourced from a greenfield / quarried source, or, if from a brownfield source, that proper sampling, testing and assessment has been undertaken (in accordance with any earthworks specification) to determine that the material is suitable for use at the site
- Photographic records, including during excavations, segregation / stockpiling and material placement
- As-built landscape and drainage drawings.

5.3 Independent inspection

Buro Happold will be responsible for the provision of a part-time watching brief, comprising three main elements set out below. The provision of this support is important as the Environment Agency strongly advise that verification includes a measure of independence, to avoid potential conflicts of interest.

i. Periodic site inspection – allowance has been made for approximately two days of attendance per month during the main earthworks. A site visit pro forma will be prepared and completed upon each visit to record observations and accompanied by supporting photographs. These pro forma and photographs will form part of the evidence to be presented in the Verification Report and will support records obtained by McLaren / the earthworks Contractor
ii. Ad hoc responses – to requests for advice (e.g., if unexpected contamination is encountered)
iii. Liaison with the local authority – associated with the reports required for discharge of the Conditions and if unforeseen contamination is encountered.

5.4 Unforeseen contamination

Ground investigations [5] [8] at the Site recorded elevated concentrations of some determinands (heavy metals and hydrocarbons) within Made Ground and natural strata at some locations. Notwithstanding, there is the potential for unforeseen contamination to be present in isolated areas that were not encountered during the previous phases of ground investigation. The potential risks associated with unforeseen contamination will be mitigated by the following management regime:

i. A 'watching brief' will be held by the Engineer which will involve periodic inspection, appropriately recorded in a site diary. This will supplement daily records maintained by the Contractor
ii. In the event of unforeseen contamination being encountered, an appropriately qualified environmental specialist from the Engineer will be contacted and will visit site as soon as practicable if deemed necessary
iii. The specialist will determine the requirement for additional investigation and/or assessment
iv. Implement immediate measures to contain and control any unexpected contamination and prevent any additional environmental impacts (should this be required)
v. Depending on the nature of the contamination encountered and potential risks identified, liaison with the Client and Regulators (the Local Authority / Environment Agency) to agree methodology for managing / controlling risk
vi. Where areas of unexpected contamination are encountered, the Contractor in collaboration with the Engineer shall record the location, area, volume etc. of impacted material
vii. The actions will be appropriately recorded and included in the Verification Report

5.5 Waste classification and Duty of Care

Made Ground arisings are expected to be derived from a reduction in level across the site. Previous ground investigations indicated that the majority of Made Ground soils are likely to be classified as Non-Hazardous Waste.

It will be the Contractor's responsibility to appropriately characterise soil materials for disposal. In line with current good practice, waste streams will be separated on excavation while confirmatory testing is carried out. Testing for waste classification purposes should be carried out at a frequency of approximately 1 sample per 500m^3 to enable correct classification and disposal of potentially hazardous materials. Landfill Waste Acceptance Criteria (WAC) leachate testing should also be undertaken prior to disposal to landfill to meet the disposal facility's license conditions.

Waste soils removed from site will be recorded in SmartWaste or similar product. This will enable tracking of movement of waste soils, their classification, eventual receiving facility, and calculation of volumes. Waste Transfer Notes (WTNs) will be inspected during periodic site inspections, stored in accordance with Duty of Care requirements, and a selection presented in the Verification Report. Data from chemical and WAC analysis will also be presented in the Verification Report along with sampling locations etc.

5.6 Material (soil and aggregate) acceptance

Imported aggregate or soil materials shall meet the chemical criteria set out in the Verification Plan [3]. Aggregate or soil materials imported for placement below hardstanding or buildings (e.g., to construct a piling mat) shall be subject to chemical testing at a frequency of 1 sample per 500m^3 or five samples per source, whichever is greater. The results of chemical testing will be compiled and presented in the Verification Report.

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6 Verification of groundworks (enabling earthworks)

6.1 Introduction

The following text describes the data obtained providing the necessary lines of evidence set out in the approved Verification Plan [3]. Much of this information is presented in a series of Appendices to this report which are cross referenced in the appropriate section of the text. The text is presented for each of the aspects identified in the plan as detailed in Section 5.

Buro Happold undertook five site visits between October 2025 and January 2026. This was recorded on a proforma prepared by Buro Happold. Buro Happold then liaised with McLaren for clarification or requests for further information or data as appropriate (Appendix A).

6.2 Construction workforce – health, safety, and hygiene regime

During the enabling earthworks, a good standard of health, safety and hygiene practices were adopted by the relevant contractors (P.P. O'Connor and Green Piling) in accordance with the Method Statements prepared by McLaren (Appendix A). P.P. O'Connor were responsible for the excavations. RAMs were prepared for each task (e.g. excavation, site modification, and removal of asbestos) and relevant operatives were briefed prior to commencement of works (Appendix A). McLaren held Toolbox Talks relevant to ground works and contamination (Appendix A) were undertaken prior to below ground works.

During the site visits, Buro Happold also observed implementation of the measures used to control potential nuisance effects to site neighbours and to protect the construction workforce. This included the use of fencing around areas of known ACM contamination (Figure 6—1) and where piling has been completed (Figure 6—2), dampening down of excavations, and the use of agreed access routes across the site. Evidence of this is recorded on the site inspection notes presented in Appendix B.

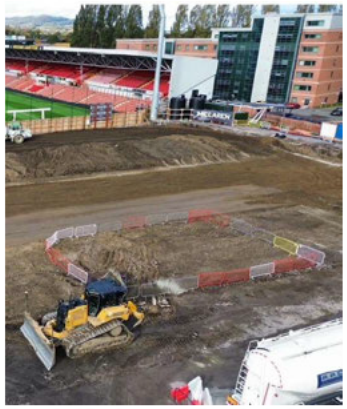


Figure 6—1 Fencing surrounding asbestos impacted area.

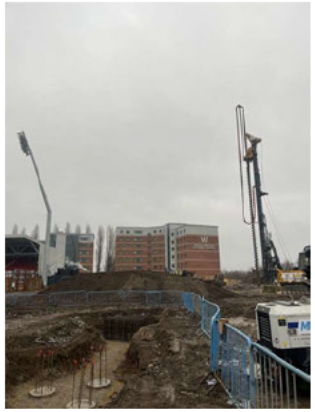


Figure 6—2 Fencing around completed piling.

6.3 Earthworks

P.P. O'Connor were employed to undertake the majority of the bulk excavation. Specifically, their scope of works included:

- Pre-classification of soils for waste characterisation purposes prior to main excavation
- Break existing hardstanding
- Bulk excavation to formation level
- Installation of piling mat.

6.3.1 Waste Soil Classification

Pre-classification of soils was undertaken during the previous phase of work and are detailed in the Preliminary Waste Classification Assessment prepared by Ramboll [3]. Chemical data, soil logs / descriptions, visual observations of the material and the HazWasteOnline assessment tool were used to identify the different waste streams (e.g., inert (natural material), non-hazardous and hazardous). This information enabled the appropriate excavation, segregation, stockpiling and disposal of soils during the enabling earthworks.



Figure 6—3 Example of P.P. O'Connor stockpile of piling arisings.

McLaren used SmartWaste to record the removal of their excavated soils from site (Appendix C). Table 6-1 summarises the volumes of soils that were removed via 8-wheeler lorries and their end destinations. Note that these volumes include soil arisings generated during excavation only and not those associated with other construction activities. Waste Transfer Notes were periodically inspected along with the monthly SmartWaste reports during site visits by both Buro Happold and McLaren. A selection of Waste Transfer Notes are included in Appendix C.

Table 6-1 FDL soils removed from site

End destination	Haulage Company	EWC Code	Material description	Tonnes
Maw Green Landfill Site, Maw Green Road, Coppenhall, Crewe, Cheshire, CQ1 5NG	P.P. O'Connor	17-05-04	Non-Hazardous	8,429.48
Maw Green Landfill Site, Maw Green Road, Coppenhall, Crewe, Cheshire, CQ1 5NG	P.P. O'Connor	17-05-03 and 17-06-05	Hazardous	72.36
Maw Green Landfill Site, Maw Green Road, Coppenhall, Crewe, Cheshire, CQ1 5NG	P.P. O'Connor	17-05-04	Non-Hazardous	247.00
Maw Green Landfill Site, Maw Green Road, Coppenhall, Crewe, Cheshire, CQ1 5NG	P.P. O'Connor	17-05-04	Non-Hazardous	5,632.0
			Total:	14,380.84

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6.4 Piling

The piling design by Green Piling included 321no. continuous flight auger (CFA) piles, 600mm in diameter and lengths between 10.0 and 26.0m, with C30/37 DC-2 concrete. Ramboll undertook a Foundation Risk Assessment of CFA piling considering potential sources, pathways and receptors and concluded the potential risk to be very low to low [3]. All soil samples except one (TP101) had water soluble sulphates concentrations below the DS1 concrete classification. Even though the location of TP101 is outside the proposed development footprint, Green Piling used C30/DC-2 concrete for the CFA piles.

Based on the piling design by Green Piling and the as built piling schedule (Appendix E), piles were completed to depths that do not create a migration pathway for potential contaminants.

6.5 Obstructions

Below ground obstructions were not encountered during the enabling groundworks.

6.5.1 Imported soil materials

As described in Section 6.3, alongside bulk excavation to formation level, P.P. O'Connor were responsible for the production / construction of pile mats. Green Piling were responsible for piling and construction of the pile cap. MBA were responsible for construction of the ground / basement slab. Sixty tonnes of 6F2 were imported by P.P. O'Connor to support the piling and piling cap works. This was recorded in the site inspection notes presented in Appendix B. Visual inspection of the material was undertaken prior to use to confirm the absence of harmful material within the aggregate. P.P. O'Connor undertook a sampling exercise to confirm the chemical suitability of the imported aggregates. The data are included in Appendix D.

Landscaping planters 'against the pavement' which will be about 1m bgl are to be in areas that haven't been disturbed by works described in this report. The planters are anticipated to be built in March 2027. A separate design note will be submitted once these works have been completed.

6.6 Groundwater

Groundwater was not encountered during the below ground works.

6.7 Surface water and run-off control

On-site treatment was not required for soils excavated by P.P. O'Connor. The soils were predominantly transported off-site as they were excavated, although occasional small temporary stockpiles were used for excess material awaiting off-site disposal. The volume, limited time spent on site before removal, non-hazardous nature of the material and distance to surface water meant the small stockpiles didn't require specialist surface water run-off mitigation measures. However, pooling of surface waters occurred during periods of wet weather. On occasions, this required pumping to foul water sewer via an approved discharged consent. See Appendix A for McLaren's Waste Management Plan.

6.8 Unexpected contamination

Asbestos containing materials (ACMs) of cement were encountered during the enabling earthworks. Representative samples were taken for laboratory examination and analysis, indicated in the Certificates of Analysis in Appendix C. The area where the ACMs were encountered was fenced off while asbestos testing was undertaken until the laboratory test results were reported. Evidence of this is provided in the site inspection notes (Appendix B). Results from the asbestos identification chemical testing recorded chrysotile fibres (Appendix C). This ACM impacted material was removed from site and disposed of at Maw Green Landfill Site as hazardous waste. Evidence of this is provided in the Consignment Note in Appendix C. The excavation was backfilled with clean certified material.

6.9 Environmental management

Soils

To restrict soils being transferred onto roads, on-site vehicle movements were minimised and generally restricted to on site haulage roads (covered by tarmac). Crispin Lane was used as the key access and egress to and from site. A water bowser was used as dust suppression when dust was generated in dry weather. Site water supplies were connected to Wrexham AFC club mains by means of 25mm MDPE temporary main to the 63mm MDPE water main. Road sweeping was undertaken on the haul roads regularly. Evidence of this is provided in the site inspection notes (Appendix B).

6.10 Below ground infrastructure

The appropriateness of the design of below ground concrete has been demonstrated by Green Piling's Bearing Pile Design report (Appendix E). The documentation indicates that C30/37 DC-2 was used.

6.11 Water supply pipework

Barrier pipe was used for permanent underground water supply pipework (see Figure 6—4 and Figure 6—5).



Figure 6—4 Barrier pipe



Figure 6—5 Barrier pipe

6.12 Independent inspection

Periodic site inspection

Buro Happold undertook five site visits between October 2025 and January 2026 (records of which are presented in Appendix B).

Ad hoc responses

No ad hoc requests for advice were made by either McLaren during the earthworks process.

Liaison with the local authority and NHBC

No formal liaison between Buro Happold and WCBC and NHBC was required or carried out.

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7 Conclusions

7.1 Achievement of Verification Plan

The Verification Plan, summarised in Chapter 5, has been successfully delivered with respect to the enabling earthworks / groundworks associated with the Kop Stand. This is demonstrated by the achievement of the Verification Plan objectives that are set out in Ramboll's Contaminated Land Interpretive Report [3]. The evidence to support this is described in Chapter 6 and included as a series of Appendices to this report. To monitor compliance with the Verification Plan, periodic inspections were undertaken by Buro Happold (supported by McLaren) who were independent to the work being carried out.

7.2 Long-term monitoring

Due to the implementation of the Verification Plan, summarised in Chapter 5, and the absence of any discovery of unforeseen / unexpected contamination and associated residual risk, no long-term monitoring for the site is required.

7.3 Status of site at completion of works

This report (Verification Report – Part A) forms part of a two-stage Verification process. A later report (Part B – Landscaping) will be submitted on completion of the placement of imported topsoil / subsoil within soft landscaped areas or planters.

Based on the evidence presented in this report, the low residual risk that was identified in the interpretive report [3] and the betterment of the site during the enabling works (e.g. removal of material and importing of clean soils) it is concluded that there is a very low risk of detrimental impact to environmental receptors from the enabling earthworks and future development.

Therefore, it is concluded that the provision of WCBC Planning Conditions 6 and 7 have been met with respect to the verification of the enabling earthworks (reflecting that long-term monitoring is not needed). Accordingly, this report should be submitted to WCBC for their consideration with respect to the partial discharge of these conditions. Full discharge of Condition 7 will be subject to the submission of the Part B Verification Report upon completion of all landscaping works associated with the proposed development.

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8 References

[1] gov.uk, Land contamination risk management (LCRM), 2025.

[2] Ministry of Housing, Communities and Local Government, National Planning Policy Framework, Ministry of Housing, Communities and Local Government, 2024 (as amended 2025).

[3] Ramboll, "Wrexham AFC Kop Development Contaminated Land Interpretive Report," February 2024.

[4] Ramboll, "Wrexham AFC - KOP Stand Development. Geotechnical and Contaminated Land Desk Study Report. PF02 1620012485-RAM-XX-XX-RP-CE-00001," 2022.

[5] Geotechnics, "Wrexham F.C. New Kop Stand Ground Investigation. Factual Report. PN224453," 2023.

[6] Buro Happold, "Design Note - Review of land contamination documentation," January 2025.

[7] Buro Happold, "Requirement for radon protection measures," Buro Happold, May 2025.

[8] Geotechnics Ltd, "Wrexham AFC Kop Stand Ground Investigation," September 2025.

[9] BRE, "BRE 211: Radon. Guidance on protection measures for new buildings. [superseded]," 2015.

[10] BRE, ""Guidance on protective measures for new buildings (including supplementary advice for extensions," 2023.

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Appendix A Health and safety documentation

A.1 RAMS

A.2 McLaren- Water Management Plan

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This form is mobilised in INNDEX. The paper version should only be used when INNDEX is unavailable

Project name	Wrexham AFC Kop Stand	**Project no**	MN1712
Activity	PPOC Asbestos Removal RAMS	**Subcontractor**	PP Oconnor
Anticipated start date	30-10-2025	**Issue/Revision number**	Rev 1

Status	**Comment**
A	Accepted
B	Not accepted. Please incorporate comments and resend.

Please note – ALL comments MUST be incorporated within the RAMS before it will be accepted for implementation. Once Status A achieved, it does not relieve the contractor of their contractual obligations and ownership of the RAMS.

Status	**Name of Reviewer**	**Position of Reviewer**	**Signature**	**Date Recieved**	**Date Reviewed**
Accepted	Mark Standeven	Senior Site Manager		30-10-2025	30-10-2025

The RAMS documentation submitted by the subcontractor should include the following			
RISK ASSESSMENTS	Yes	**PERSONAL PROTECTIVE EQUIPMENT**	Yes
COSHH	N/A	**EMERGENCY ARRANGEMENTS**	Yes
FULL DESCRIPTION OF METHODOLOGY AND SEQUENCE OF WORK	Yes	**MATERIALS, WASTE REMOVAL HOUSEKEEPING AND STORAGE**	Yes
ACCESS / EGRESS	Yes	**ENVIRONMENTAL**	Yes
OCCUPATIONAL HEALTH	Yes	**LOGISTICS**	Yes
WORK AT HEIGHT	N/A	**TECHNICAL INFORMATION**	Yes
PLANT / EQUIPMENT/TOOLS	Yes	**COMMUNICATION/MANAGEMENT/ TRAINING**	Yes
PERMITS	Yes	**COVID-19 RISK ASSESSMENT**	N/A
Please note – referring to the McLaren Risk Assessments and Method Statements (RAMS) Guidance will assist in what information is needed			

This form is mobilised in INNDEX. The paper version should only be used when INNDEX is unavailable

Comments	Initials
N/A	MS
Continuation Sheets Used	

Wrexham AFC – Asbestos Loading RAMS

Document Reference: PPO RAMS – BM - 005– Rev 001

Rev No.	Review Comments	Prepared By:	Date	Reviewed By	Date	Client Approved	Date
0	Initial Draft	Bobby Moran	28/10/25	Steve Cooke	28/10/25		

Rev No:	Signed Contracts Manager:	Date:	Signed Site Manager:	Date:

THIS RAMS MUST BE REVIEWED AT A PERIOD NOT EXCEEDING 4 WEEKS OR WHEN CIRCUMSTANCES HAVE CHANGED

Combined Risk Assessment & Method Statement

Project / Site: Wrexham AFC KOP Stand	RISK ASSESSMENT		Page **2** of **14**
Task Location: Area B2	Task: Loading away of Cement board asbestos	Ref No: RAMS 002	Date Task Starts: 29/10/25

Key to Risk Rating:

Likelihood (L) \ Severity (S)	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25

Likelihood (L)		Severity (S)	
1	Very Unlikely	1	Minor injury, no lost time, no damage
2	Unlikely	2	Minor injury, less than or equal to 3 days lost time, minor damage
3	Likely	3	Reportable injury, 3+ days lost time, temporary disruption to operations
4	Very Likely	4	Major injury, damage, theft
5	Certain	5	Fatality, major damage, industry disruption
Risk Rating (RR) = Likelihood (L) x Severity (S)			

Activity	*Identified Hazards and Associated Risks*	*Risk Rating* S	L	RR	*Control Measures*	Residual Risk S	L	RR	Persons at Risk - Workforce - Visitors - Public	Monitoring Responsibility
Asbestos	Exposure to asbestos fibres	5	4	20	• All specified PPE/RPE to be worn at all time during the asbestos removal. • Operatives to have valid face fit test for type of mask being worn prior to use on site • Plant will have HEPA filters fitted and the Operators will turn off their fans and keep their windows closed at all times during the operation.	5	2	10	All persons on site and public	PPOC
General	Slips, Trips & Falls Possible injury to occupants site working areas Poor housekeeping. Spillages of liquids. Mud and loose rubble. Uneven floors and ground areas. Obstructions.	3	4	12	• Always maintain good levels of housekeeping. • Clean up spills immediately – spill kits. • Eliminating uneven floor and ground areas were reasonably practicable. • Maintain clear access routes – clear away any accumulation of rubbish, materials, cables and hoses to prevent obstructions. • Display information/safety signage.	1	4	4	All persons on site	PPOC

General	Manual Handling Personal Injury Manual Handling Back Strain Lacerations Various sprains, strains, etc.	3	3	9	• All operatives will be given training in the correct methods of handling and lifting loads as part of their normal site safety training. • Maintain High levels of housekeeping at all times • Access & material transfer routes to be kept clear. • Supervisors will ensure that a supply of suitable gloves is available	1	3	3	Operatives	PPOC
Fuels and greases	Hazardous Materials (COSHH)	4	3	12	– All Operatives are to be trained and competent – Liquids on site must have a data sheet – Prior to handling hazardous liquids then a COSHH risk assessment must be read, understood and signed as understood by any party handling the materials. – If Hazardous materials are suspected or identified all works will be made safe & stopped. – Exclusion zones will be established and a toll box talk given to make all parties on site aware of the materials found – Works will not commence until materials are identified and risk controlled – All hazardous waste will be handled in accordance with the current regulations – PPOC Operatives are trained in non-licensed asbestos removal/waste. • Appropriate PPE to be always worn in working areas	4	2	8	Operatives/ Operators	PPOC
Operation of plant	Fuel or hydraulic oil leaks from plant and spillage Slips/ falls Dermatitis Environmental impact due to spillage	2	2	4	• Spill kits to be made available on site. • All drivers to be trained in the operation of fuel pumps. • All spills to be cleaned up immediately. • Apply barrier cream before operation. • Wash hands after operation. • PPE to include impervious disposable gloves, (PPE issue).	1	2	2	Plant Operatives	PPOC Supervisor
Operation of plant	Refuelling Plant and Equipment Slips /Falls Dermatitis	3	3	9	• Where possible designate one competent person to take charge of refuelling. • All drivers to be trained in operation of fuel pumps. • All spills to be cleaned up immediately. • Apply barrier cream before operation.	1	3	3	Plant Operatives	PPOC Supervisor

	Enviromental impact due to Spillage				• Wash hands after operation. • Provision of drip trays under plant & equipment. • PPE to include impervious disposable gloves. •					
Use of Mechanical plant / plant movements	Operatives being struck by vehicles using vehicles Accessing & egressing from works area.	2	4	8	• Competent operative and supervisor to be in control of works area. • Ensure vehicle routes and site access and egress are clearly defined and maintained. • Site supervisors to monitor. • A general overview of Traffic management arrangements to be explained during induction. • High-visibility clothing to be worn. • Pedestrians prohibited from works area unless authorised by banksman after ensuring machines are stood down. • Where possible pedestrian / vehicle routes to be established & clearly sign posted. • Safe walking routes to be in place and adhered to. • Plant to remain inside work area unless they need access/egress elsewhere. •	1	4	4	All persons on site	PPOC Supervision
Use of Mechanical plant / plant movements	Operatives being struck by vehicles using vehicles Accessing & egressing from works area.	2	4	8	• Competent operative and supervisor to be in control of works area. • Ensure vehicle routes and site access and egress are clearly defined and maintained. • Site supervisors to monitor. • A general overview of Traffic management arrangements to be explained during induction. • High-visibility clothing to be worn. • Pedestrians prohibited from works area unless authorised by banksman after ensuring machines are stood down. • Where possible pedestrian / vehicle routes to be established & clearly sign posted. • Safe walking routes to be in place and adhered to. • Plant to remain inside work area unless they need access/egress elsewhere.	1	4	4	All persons on site	PPOC
General	Weather conditions	4	3	12	• Due consideration to ground conditions must be observed during heavy rain. • Due consideration to ground conditions must be observed during snow periods.	1	3	3	All persons on site	PPOC

					• Due consideration to ground conditions must be observed during periods of dry weather and dust mitigation measures must be adhered to. • During adverse weather conditions appropriate PPE must be worn. • During sunny periods it is advised that skin protection measures are encouraged to all external working persons.					
Persons on site	Unauthorized access Public interface	4	2	8	– Excavations exclusion zones to be designated by fencing and safety signage to be established and secured. – Controlled access into the working zone will be established with the use of a banksman. – Site vehicles to check for pedestrians and traffic before driving out of and on to site – All persons on site to be vigilant for members of the public and third parties at all times – Supervisors to coordinate works with other trades in the area if any. – Debris netting if needed to prevent 3rd parties being struck with debris.	4	1	4	Operatives & Operators	PPOC
Operation of plant	Refuelling Plant and Equipment Slips /Falls Dermatitis Enviromental impact due to Spillage	3	3	9	• Where possible designate one competent person to take charge of refuelling. • All drivers to be trained in operation of fuel pumps. • All spills to be cleaned up immediately. • Apply barrier cream before operation. • Wash hands after operation. • Provision of drip trays under plant & equipment. • PPE to include impervious disposable gloves. –	1	3	3	Plant Operatives	PPOC Supervisor

Combined Risk Assessment & Method Statement

METHOD STATEMENT	
Contractors to be used on site	PP O'Connor, McLaren
Method of Communication	Briefing after induction.
Specific PPOC Contacts and phone numbers	Contracts Director: David Worth (david.worth@ppoconnor.co.uk) 07872 456275 Contracts Manager: Steve Cooke (Steve.Cooke@ppoconnor.co.uk 07885280720 HSEQ Advisory: (HSEQ@ppoconnor.uk) Project Manager Dave Keating David.keating@ppoconnor.co.uk 07766797381 Site Manager: Bobby Moran (Bobby.moran@ppoconnor.co.uk) 07471079358
Working Hours	0700 – 1800hrs
Clients Specific Requirements	N/A
Training / Competencies required for personnel undertaking the task	Manager Supervisor: SMSTS/SSSTS, CSCS, First Aid Asbestos Awareness Groundworkers: CSCS

Emergency Arrangements (First Aid, Rescue, Fire, Location of nearest hospital / A&E)

Attach maps / drawings as necessary

Emergency Arrangements

- On-site emergency procedures & assembly points will be made clear in the Site Induction. All PPO site staff & operatives are to follow their site rules & direction.

Emergency Contact List:

PPO HSEQ Director	Martin O'Donnell	Martin.odonnell@ppoconnor.co.uk	0161 776 0333
Police			999
Fire			999
A&E	Wrexham Maelor Hospital		999

	From Site to Hospital 
Access and Egress Arrangements	There is a single point of access/egress to/from site on Crispin Ln. Tipper and Delivery wagons will be accompanied by banksman when required while on site. All vehicles must be reverse parked only.

Attach maps / photos as necessary	
PPE Standards	General Site Working 5 Point PPE - Safety Boots - Hard Hat - Light Eye Protection - Gloves - Hi Vis vest & Trousers
Traffic Mgmt. & Plant / Equipment Delivery	All site personnel will be briefed concerning access around the site area. TMP is to be updated every 2 weeks or when significant change on site.
Procedure for Changes to Planned Activities	Any changes to planned activities will in the first instance be communicated in principle to the client for initial approval. The Method Statement will then be revised by the PPO Site Manager in line with the proposed changes, and in turn must be approved by the PPO Contract Manager. Upon internal approval, the RAMS must then be submitted to the client for ultimate approval. The revised RAMS will then be briefed to the workforce on site by the Site Manager, with signatures collected respectively.
Asbestos Management & Control	As per the asbestos management disposal agreement with McLaren
Plant & Equipment incl. portable tools	• CAT 340 • 8 wheeled tipper wagons • Hand Tools
Materials to be used (Inc. COSHH)	• Diesel • AdBlue

	• Hydraulic/Engine Oil
Interfaces with other contractors	TD Testing
Temporary Works, Structures, Falsework	Excavations should not exceed 1m in depth but if they do go beyond 1.2m deep the sides of the excavation will be stepped at 600mm.

P.P.E to be Worn (Red is mandatory unless risk assessed out):					
Type	**Standard**	**Req Y/N**	**Type**	**Standard**	**Req Y/N**
FR & Arc Coveralls		N	RPE (Disposable)		N
FR Coveralls		N	RPE ½ Face Mask		Y
Standard Coveralls		N	RPE Full Face Mask		N
Hi Vis Jackets	EN20471	Y	Hard Hat	EN397	Y
Hi-Vis Trousers	EN20471	Y	Bump Cap		N
FR Undergarments		N	Standard Gloves	EN388	Y
Knee Pads		N	LV Gloves		N
Eye Protection (Glasses)	EN166	Y	Leather Gauntlets		N
Eye Protection (Goggles)		N	Safety Footwear	EN20345	Y
Face Shield (Arc Protect)		N	Wellingtons (Safety)		Y
Additional / Other PPE specified / required by the risk assessment for the activity:					

Permits Required:
Permit to Excavate.

Environmental Impacts e.g., waste, pollution, flora and fauna, Noise, Vibration, Air Quality, Dust etc.	Weather conditions, dust, noise, vibration and air monitoring in place.

Sequence of Events
Identify specific stages throughout the task to be carried out (Add drawings / photos / maps as necessary)

Pre-commencement

1. All operatives shall have PPOC induction before being allowed to work on this site.
2. Operatives shall be checked that they are competent to carry out the task, ensuring that all relevant training certificates are in date and copies held in the site safety file.
3. Operatives will be asked to fill in the daily Activity briefing form at the start of each shift.
4. Mandatory PPE requirements: Hardhat, Hi Visibility vest or jacket, Steel toe/mid-sole boots, gloves, light eye protection, Hi Visibility trousers.
5. Advise all personnel to maintain a clear and tidy work area and ensure that barriers are situated such that they do not cause trip hazards.
6. All refuelling activities shall be carried out at the agreed location. Any contamination/spillage shall be reported to the PP O'Connor Site Representative immediately, who will advise of the actions to be undertaken.
7. All work with asbestos will be conducted in accordance with the legislative requirements of the Control of Asbestos Regulations 2012
8. All operatives employed by Eton Group receive training applicable to their areas of work. This training is supplemented by regular toolbox talks on a regular ongoing basis. Details of all training provided is recorded and kept on the individual's training file. Copies of these records are available upon request where applicable.

Site Diary
Describe any work or incidence that happens during the contract.

Emergency Procedures
An air horn will be placed as close to the segregated work area/respiratory zone as possible, in case of an emergency and will be used to gain the attention of the Site Supervisor in the event of an emergency.

PLEASE NOTE: Fires MUST NOT be tackled (unless trained to do so) and operatives should leave immediately while following P.P. O`Connor standard procedures where possible, but without further endangering their own or any other person's life.

Asbestos exclusion zone setup

The exclusion zone will be demarcated with fencing. Along with Danger keep out signs / danger asbestos signs

HOLD POINT – Site Manager signs when exclusion zone and decontamination zone set up as per the above

Signature

Date and Time

1. Asbestos Disposal

- 40t 360 excavator will be used to dispose of the asbestos material into tipper wagons.
- The 360 machines will work from the outside perimeter of the asbestos zone and will not track on the Asbestos contaminated material.
- The ACM will be mixed with use of the 40t excavator with cleaner material. To lower the percentage volume of asbestos to <5% volume.
- The excavator will then load this material onto the tipper wagon where it will then be banked off site.

HOLD POINT – Site Manager signs when he is satisfied the working area is visually clean and free of any asbestos

Signature

Date and Time

- The excavator will then clean its contaminated buckets onto the 1000g polythene visqueen that was covering the asbestos material. Where it will be loaded onto the final wagon for disposal at the asbestos tip.

Other Relevant information:	
Who will be the Supervisor for this work:	Bobby Moran / Ian King

Confirmation of RAMS Briefing

Signature	Name	Employer	Date

McLAREN

RAMS Evaluation Sheet

Project name	Wrexham AFC Kop Stand	**Project no**	MN1712
Activity	Earthworks / Reduced Lev	**Subcontractor**	PP Oconnor
Anticipated start date	29-09-2025	**Issue/Revision number**	Rev 0

Status	Comment
A	Accepted
B	Not accepted. Please incorporate comments and resend.

Please note – ALL comments MUST be incorporated within the RAMS before it will be accepted for implementation. Once Status A achieved, it does not relieve the contractor of their contractual obligations and ownership of the RAMS.

Status	Date Received	Date Sent
Status A - Accepted	24-09-2025	24-09-2025

For MCL Use ONLY

Appraisal Signatories	Name	Position	Signature	Date
Reviewed	Mark Standeven	Senior Site Manager	[redacted]	24-09-2025
Status A achieved	Mark Standeven	Senior Site Manager	[redacted]	24-09-2025

The RAMS documentation submitted by the subcontractor should include the following			
RISK ASSESSMENTS	Yes	PERSONAL PROTECTIVE EQUIPMENT	
COSHH	Yes	EMERGENCY ARRANGEMENTS	Yes
FULL DESCRIPTION OF METHODOLOGY AND SEQUENCE OF WORK	Yes	MATERIALS, WASTE REMOVAL HOUSEKEEPING AND STORAGE	Yes
ACCESS / EGRESS	Yes	ENVIRONMENTAL	Yes
OCCUPATIONAL HEALTH	Yes	LOGISTICS	Yes
WORK AT HEIGHT	No	TECHNICAL INFORMATION	Yes
PLANT / EQUIPMENT/TOOLS	Yes	COMMUNICATION/MANAGEMENT/ TRAINING	Yes
PERMITS	Yes	COVID-19 RISK ASSESSMENT	No
Please note – referring to the RAMS Pro Forma (SAF 072) will assist in what information is needed			

Comments	Initials	
COSHH Data sheets issued and saved at commencement of project.		
Continuation Sheets Used	Yes ☐	No ☐

RAMS TITLE

Document Reference: PPO – Earthworks – RA/03 – C0677 – Rev 0

Mclaren – Wrexham AFC Kop Stand

Earthworks

RAMS Review Form must be attached

Rev No.	Review Comments	Prepared By:	Date	Reviewed By	Date	Client Approved	Date
0	0	Dave Keating	24/09/2025				

Rev No:	Signed Contracts Manager:	Date:	Signed Site Manager:	Date:
0	S Cooke	24/09/2025		

Combined Risk Assessment & Method Statement

THIS RAMS MUST BE REVIEWED AT A PERIOD NOT EXCEEDING **2** WEEKS OR WHEN CIRCUMSTANCES HAVE CHANGED

Project / Site: Mclaren - Wrexham AFC Kop Stand	**RISK ASSESSMENT**		Page **2** of **14**
Task Location: Wrexham AFC Kop Stand	Task: Earthworks RAMS	Ref No: RA/02 – C0535 – Rev 2	Date Task Starts 29/09/2025

Key to Risk Rating:

Likelihood (L) \ Severity (S)	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25

Likelihood (L)		Severity (S)	
1	Very Unlikely	1	Minor injury, no lost time, no damage
2	Unlikely	2	Minor injury, less than or equal to 3 days lost time, minor damage
3	Likely	3	Reportable injury, 3+ days lost time, temporary disruption to operations
4	Very Likely	4	Major injury, damage, theft
5	Certain	5	Fatality, major damage, industry disruption
Risk Rating (RR) = Likelihood (L) x Severity (S)			

Activity	*Identified Hazards and Associated Risks*	*Risk Rating* S	L	RR	*Control Measures*	Residual Risk S	L	RR	Persons at Risk	Monitoring Responsibility
General	Working as a subcontractor or working under a client's own procedures				– Whilst working under a principal contractor (CDM 2015) then the principal contractors procedures/ risk assessments still apply – Whilst working under a site controlled by others then the owners/ contractors procedures/ risk assessments still apply				All persons on site	PPO Supervision
General	Slips, Trips & Falls	4	3	12	– Maintain good levels of housekeeping at all times. – Clean up spills immediately – spill kits – Protect open edges	4	1	4	All persons on site	PPO Supervision
General	Access & Egress	3	3	9	– Segregated access and egress routes to be clearly marked and signed on site – All operatives to be briefed on & use of designated access & egress routes that are clearly marked and defined. – Maintain good levels of housekeeping at all times.	3	1	3	All persons on site	PPO Supervision

					– Separate pedestrians from plant/ vehicles were possible – Keep emergency routes clear – Keep designated access routes clear at all times.						
Manual Handling	– Personal Injury – Back Strain – Slipped Disc – Hernias – Lacerations – Crushing of hands or fingers – Bruised or broken toes or feet Various sprains, strains, etc.	3	3	9	– Always use mechanical devices wherever possible – Reduce risk of injury to lowest level reasonably practicable – All operatives will be given training in the correct methods of handling and lifting loads as part of their normal site safety training. – Maintain High levels of housekeeping at all times – Access & material transfer routes to be kept clear. – Supervisors will ensure that a supply of suitable gloves is available from issue as required for the handling of materials which could cause injuries to the hands.	3	1	3	Operatives	PPO Supervision
General	Personal Protective Equipment	4	3	12	– PPE is mandatory on this site (Minimum – Safety helmet, light eye protection, high visibility waist coat or jacket & trousers, gloves and approved foot protection) – PPE must be worn at all times – Additional task specific PPE will be made available and must be worn at all times – Some PPE requires periodic testing/ inspection - Records are to be kept - Uncertified PPE must not be used – All PPE that is damaged must be immediately replaced and reported to the supervisor – Damaged PPE is to be disposed of. –	4	1	4	All persons on site	PPO Supervision
General	First Aid provisions	3	2	6	– This site must have a first aider on site at all times – All persons on site to be made aware of whom the first aider is (Induction or tool box talk) – A first aid kit or kits must be available and match the number of persons on site. –	3	1	3	All persons on site	PPO Supervision

Fuels and greases	Hazardous Materials (COSHH)	4	3	12	– All Operatives are to be trained and competent – Liquids on site must have a data sheet – Prior to handling liquids then a COSHH risk assessment must be read, understood and signed as understood by any party handling the materials. – If Hazardous materials are suspected or identified all works will be made safe & stopped. – Exclusion zones will be established and a toll box talk given to make all parties on site aware of the materials found – Works will not commence until materials are identified and risk controlled – All hazardous waste will be handled in accordance with the current regulations – PPOC Operatives are trained in asbestos awareness. – Appropriate PPE to be work at all times	4	2	8	Operatives/ Operators	PPO Supervision
Site Traffic Management	Operatives being struck by vehicles using vehicle routes Access/egress from works area.	4	2	8	– Ensure vehicle routes and Site access and egress are clearly defined and maintained – High visibility clothing to be worn including trousers – Operative to attract drivers/operators attention before approaching vehicles/plant – All reversing vehicles & plant movements to be controlled by a designated Banksman – Where possible pedestrian / vehicle routes to be established & clearly signed posted GPS controlled plant to limit site personnel in area of major earthworks operations. – Operatives to use pedestrian routes where available. – Banksman to be in place at main entrance to site at all times everyone entering site needs to sign in.	4	1	4	All persons on site	PPO Supervision
Persons on site	Security Unauthorized access Public interface	4	2	8	– Excavation fenced exclusion zone to be securely fenced off and safety signage to be established, secured and maintained throughout duration of works – Controlled access onto the site needs to be established – Site vehicles to check for pedestrians and traffic before driving out of and on to site – All persons on site to be vigilant for members of the public and third parties at all times – If a member of the public is witnessed on site and not escorted then all work must stop and the person taken to the site office. – Supervisors to coordinate works with other trades in the area if any.	4	1	4	Operatives & Operators	PPO Supervision

					– No reversing movements without a Banksman.					
Excavations	Excavating activities	5	3	15	– Service drawing of the area are to be supplied to the Cat scanning engineer. – Exclusion zones must be agreed, created, maintained and managed – Prior to excavating a CAT scan of the immediate area must be conducted by a suitably trained person – Following excavation activities further exclusion zone may need to be established – The CAT equipment must be date calibrated. – A permit to break ground must be raised after the Cat scanning has taken place. – Any services found must be either isolated, diverted or hand dug only – All heavy ground bearing plant or other activities must be at a safe distance from trenches that are being dug or have been dug – Following excavation activities – adequate edge protection/ barriers must be erected	5	1	5	Operators	PPO Supervision
Excavating	Underground services	5	3	15	– Prior to any excavation - underground service drawing are required – All services should be assumed to be live until disconnected and proven – A permit to excavate is required for all activities which break the ground. – Isolation certificates as necessary – The area may require a CAT survey	5	1	5	Operators	PPO Supervision
Excavating	Existing Ground conditions/ stability	3	3	9	– Prior to any activities taking place – existing ground conditions must be adequate to withstand the expected loads to be asserted	3	1	3	Operators and operatives	PPO Supervision
Excavating	Exclusion zones	4	4	16	– Exclusion zones are to be agreed, established, enforced and maintained. – If underground structures are present an agreed exclusion zone will apply (See underground structures risk assessment) – All people on site are to be made aware of exclusion zones in operation and must adhere to the restrictions established (Tool box talks)	4	2	8	All persons on site	PPO Supervision
Excavators used for lifting.	Unplanned release or dropping of load. Person being struck by boom etc. Object falling from boom or bucket.	3	3	9	– Excavators to have a valid 12-month examination certificate, SWL to be marked on jib or in the cab, – Check valves to be fitted to excavators for crane use. – Crane hook fitted and tested. Certificate of exemption. – No operatives to stand within operating radius of excavator. – The Excavator to be on a firm, level base, and the lifts will be carried out with the boom parallel to the machine tracks. – Slinger banksman to secure load to be lifted and supervise lift. – Trial lift before lifting.	3	1	3	Operatives & Operators	PPO Supervision

					– Bucket to be removed before lifting. – Lifting of manhole boxes in and out of excavations will be carried out using certified attachments as per lift plan/method statement					
Quick hitch attachments	Injury through improper use or untrained operators.	3	3	9	– Proof of training for the type of quick hitch on the excavator. – Only operators with quick hitch training are allowed to change the bucket/attachment on the excavator	3	1	3	Operatives & Operators	PPO Supervision
					–					
					–					
					–					
					–					

METHOD STATEMENT	
Contractors to be used on site	PP O'Connor Operatives and Plant carrying out earthwork's operations
Method of Communication	Briefing Sheet & DABS
Specific Contacts and phone numbers	Steve Cooke, Contracts Manager – 07522 226 311 Dave Keating, Project Manager – 07766797381
Working Hours	Monday to Friday – 07:30 – 17:00
Clients Specific Requirements	Reduced level excavation as Buro Happold latest drawing. CBR 30% on top of MOT / Modified Surface (within proposed KOP stand area)

Combined Risk Assessment & Method Statement

Training / Competencies required for personnel undertaking the task	Plant Op – CPCS/NPORS CSCS – Operatives Works Manager – SMSTS, First Aid, CSCS Appointed Person – CPCS
Emergency Arrangements (First Aid, Rescue, Fire, Location of nearest hospital / A&E) **Attach maps / drawings as necessary**	First aid kit to be provided by PPOC and contacts numbers for emergency. First Aider Dave Keating, Project Manager – 07766797381 **Nearest Hospital:** **Wrexham Maelor Hospital** **Croesnewydd Road** **Wrexham** **LL13 7TD**
Access and Egress Arrangements	Access and Egress will be from Caspin Lane access through gate 25 egress through gate 23
Procedure for Changes to Planned Activities	Work to stop and supervisor informed, method statement to be revised prior to work recommencing
Asbestos Management & Control	N/A – Asbestos has been removed previously
Plant & Equipment incl. portable tools	(40t excavator, 15ton excavator, 4T Roller)

Combined Risk Assessment & Method Statement

Materials to be used	Site won Inert Materials Type 1 MOT
Emergency Procedure **Emergency Procedure**	a. In the event of an emergency ensure that the procedures noted of McLaren Construction and/or PP O'Connor are followed b. Notify any Supervisor / Manager of the issue and follow their instructions. c. Contact Emergency Services if required. d. Follow the Emergency evacuation procedure as required. Head Count and confirm personnel. e. Ensure the emergency routes are clear and free of obstruction. Provide any necessary information to emergency services as requested by them.
Waste	• PPOC carriers licence number CB/DU101751 • Eccles New Road Recycling Yard permit EPR/BB3001KN • Sherston Waste transfer yard permit EPR/AB3205FD
Interfaces with other contractors	None envisaged at present, Monitor and update accordingly.
Temporary Works, Structures, Falsework	Temporary pedestrian Fencing, Temporary cabins
Environmental Impacts e.g., waste, pollution, flora and fauna, Noise, Vibration, Air Quality, Dust etc.	Fuelling of plant will be done by PPO on site fuel bowser. Spill kit will be available on site. Dust generated if weather is dry, water bowser will be used as dust suppression.

P.P.E to be Worn (Red is mandatory unless risk assessed out):

Type	Standard	Req Y/N	Type	Standard	Req Y/N
FR & Arc Coveralls			RPE (Disposable)		
FR Coveralls			RPE ½ Face Mask		
Standard Coveralls			RPE Full Face Mask		
Hi Vis Jackets		Y	Hard Hat		Y
Hi-Vis Trousers			Bump Cap		
FR Undergarments			Standard Gloves		Y
Knee Pads			LV Gloves		
Eye Protection (Glasses)		Y	Leather Gauntlets		
Eye Protection (Goggles)			Safety Footwear		Y
Face Shield (Arc Protect)			Wellingtons (Safety)		

Additional / Other PPE specified / required by the risk assessment for the activity: Correct gloves to be used

Permits Required:

Permit to Dig: to reference drawings 0223-GAT-001, 0921-RAM-001 & utility search report.
Consult available as-built information.
Visual inspection of existing installations
Following CAT scanning procedure
Trial hole excavations may be required ahead of excavation works – to be either Vac EX or by prove & dig methods subject to locations and types of service.
Regular inspection of excavation works to ensure compliance with permit to dig.
If in doubt cease works and seek advice
Record the finding of any unknown services for future purposes.
Any service strike shall be reported immediately.

Sequence of Events *Identify specific stages throughout the task to be carried out*		Control Measures *Identify task specific and / or generic RAMS & Procedures for the task*
1	**Initial Tarmac Strip and Cut & Fill** • Prior to the start of the excavation a permit to excavate will be issued by Mclaren Construction site Management. • The only known site services are the existing bottle ended HV into the proposed Mclaren Compound area & a BT to the northern end of the excavation these will be clearly marked out prior to commencement.	
2	**Plant Deliveries** • The plant will be delivered to Site through Gate 23 of Caspin Lane Spine Road 2 the banksman is to ensure that the low loader is sited out of other workforce's areas.	
3	**Reduce Level Excavation** • Once the plant has been delivered and the operatives have been inducted and signed onto the RAMS and a permit to penetrate has been approved. • Reducing of ground levels will be set out and controlled by Mclaren Engineer, area will be CAT Scanned, and a banksman will be present during excavations. • Materials generated to be stockpiled area TBC by Mclaren Construction.	

4	**Earthworks** • Once the plant has been delivered and the operatives have been inducted and signed onto the RAMS and a permit to penetrate has been approved. • The excavator will commence from the southern end of the excavation taking up the existing tarmac and stockpiling at the northern end of the excavation. • The tarmac will be loaded onto wagons and removed from site to a suitable licenced facility for disposal, waste transfer notes will be issued to Mclaren Construction. • After this the Existing underlying MOT will be inspected for reuse within the enabling works, if the material is acceptable Mclaren Construction to advise of stockpiling area, however if not then it must be removed from site to a suitable licenced waste facility. • Next the underlining materials will be reduced to 300mm above formation level this will be achieved by means of GPS controlled Excavator, circa 1500m3 is to be stockpiled on site for reuse as the second 300mm layer for the modification works. • If the remaining in-situ 300mm layer is of a natural stratum then this would be modified as is, if not it may require the excavator to tooth through the 300mm layer to ensure of no oversized materials that could damage the Wirtgen.	
Other Relevant information:	None at Present	
Who will be the Supervisor for this work:	Dave Keating – SMSTS	
Emergency Contacts and Numbers:	HSEQ - 0161 776 0333 Steve Cooke, Contracts Manager – 07522 226 311 Dave Keating, Site Manager – 07766797381	

Confirmation of RAMS Briefing

Signature	Name	Employer	Date

RAMS Evaluation Sheet

Project name	Wrexham AFC Kop Stand	**Project no**	MN1712
Activity	Cement modification works	**Subcontractor**	PP Oconnor
Anticipated start date	20.10.25	**Issue/Revision number**	Rev 01

Status	Comment
A	Accepted
B	Not accepted. Please incorporate comments and resend.

Please note – ALL comments MUST be incorporated within the RAMS before it will be accepted for implementation. Once Status A achieved, it does not relieve the contractor of their contractual obligations and ownership of the RAMS.

Status	Date Received	Date Sent
Status A - Accepted	13-10-2025	13-10-2025

For MCL Use ONLY

Appraisal Signatories	Name	Position	Signature	Date
Reviewed	Mark Standeven	Senior Site Manager		16-10-2025
Status A achieved	Mark Standeven	Senior Site Manager		16-10-2025

The RAMS documentation submitted by the subcontractor should include the following			
RISK ASSESSMENTS	Yes	PERSONAL PROTECTIVE EQUIPMENT	Yes
COSHH	Yes	EMERGENCY ARRANGEMENTS	Yes
FULL DESCRIPTION OF METHODOLOGY AND SEQUENCE OF WORK	Yes	MATERIALS, WASTE REMOVAL HOUSEKEEPING AND STORAGE	Yes
ACCESS / EGRESS	Yes	ENVIRONMENTAL	Yes
OCCUPATIONAL HEALTH	Yes	LOGISTICS	Yes
WORK AT HEIGHT	N/A	TECHNICAL INFORMATION	Yes
PLANT / EQUIPMENT/TOOLS	Yes	COMMUNICATION/MANAGEMENT/ TRAINING	Yes
PERMITS	Yes	COVID-19 RISK ASSESSMENT	N/A
Please note – referring to the RAMS Pro Forma (SAF 072) will assist in what information is needed			

McLAREN

Comments	Initials	
N/A	MS	
Continuation Sheets Used	Yes/No	No

Client: Mclaren Construction

Section: New Proposed KOP Stand Footprint Title

Site: Wrexham AFC

Activity: Modification of two number 300mm Layers of inert site won fills

Ref No: C0677 RAMS 004 Cement Modification REV0

Revision	Date	Prepared By	Reviewed B-y	Date	Approved By	Date
0	29/09/25	Dave Keating	Steve Cooke	29/09/25	S Cooke	29/9/25
1						
2						
3						

I confirm that I have read, understood and agreed the contents of this Task Sheet

Revision	Construction Manager / General Foreman	Supervisor (task leader)	Date
	Steve Cooke Contracts Manager off site		
	Dave Keating Works Manager on site		

TASK SHEET VALID UNTIL: Until change in scope of works

METHOD OF WORKS			
Section:	Wrexham AFC Enabling Works		Ref:C0677 Wrexham AFC

EMERGENCY ARRANGEMENTS/INCIDENT RESPONSE:	**Other Documents, Permits, COSHH etc:**	**Certified Skills:**	**Plant & Equipment:**
First Aiders Names: Dave Keating Nearest Hospital: **Wrexham Maelor Hospital,** Croesnewydd Road Wrexham LL13 7TD **Phone**: 0300 084 7847 Any accident incident must be reports as soon as practicably possible. Follow Marshall site emergency plan	Diesel Hydraulic oil AdBlue Marker paint Lime Dusts Permit to dig Weekly plant check sheets cement	- CPCS Operatives - CSCS Operatives - Personnel to bring CPCS CSCS to bring in originals to Marshall's site Manager	- 25t tracked excavator c/w digging bucket and ditching bucket - 14t Excavator c/w buckets, ditching and v Notch - D6T Dozer c/w GPS - 30t dump truck x 1 - Bunded lockable diesel tank, always padlocked other than filling. - AdBlue tank - Wirtgen Soil Stabiliser - 1 x silo - Tractor and trailer - Spreader

Contract management Contacts

Steve Cooke – 07885280720 – Contracts Manager off site

HSQE - 07522226318 Health and Safety Manager

Dave Keating – 07766797381 Project Manager – On site

PPE Requirements:

Safety helmet. High vis vest gloves glasses and safety boots mandatory.

googles as required. Full face mask shall be worn whilst dusts are present during filling operations (Air purifying Respirator) Ear protection whilst operating Wirtgen

Paperwork

All personnel to be inducted by Mclaren Construction. Follow Mclaren and PPOC site safety rules. Any infringements could mean removal from site / disciplinary procedures.

Permit to dig to be Approved from Mclaren Construction.

METHOD OF WORKS			
Section:	Wrexham AFC Enabling Works		Ref:C0677 Wrexham AFC

Dust will be controlled by means of a water suppression when necessary.

Sign in sign out of site Mclaren Construction log.

Dabs toolbox talks

Weekly returns to Mclaren Loler Puwer, observations, plant check sheets

Scope of Works

The Modification works being undertaken at Wrexham AFC are to facilitate the development of a proposed KOP stand at the club. Modification works are to be introduced at two 300mm layers the first layer in-situ and the upper layer being placed back into the excavation after layer 1 has been modified, then subsequently layer two will be modified using 5% OPC to achieve a CBR Value >30%

These RAMS cover the above scope of works.





METHOD OF WORKS			
Section:	Wrexham AFC Enabling Works		Ref:C0677 Wrexham AFC

Sequence of Works

- Areas of Modification works
- Install the GPS model in the excavators and D6.
- PPOC will install a silo platform offloading area prior to the silo arriving on site, Positioning TBC with Mclaren Construction.
- Setup of silos, operation and maintenance must be read in conjunction with PPOC documents.
- Where deemed necessary “V” notch ditch will be installed to cut water off from entering the working areas.
  Formation Plus 300mm will be proof rolled using 16t roller.
  On the first layer of in-situ site won materials 5% of OPC will be mixed into the site won fill material.
  Technician from TD or HBGS to specify bench scale trials for the modified materials.
  The Cement will be spread by the tractor spreader in front of the Wirtgen. The Wirtgen will mix the Cement into the previously laid fil material.
  If too windy and to prevent dust contamination the Wirtgen will be used to transport and mix cement in this event.

METHOD OF WORKS			
Section:	Wrexham AFC Enabling Works		Ref:C0677 Wrexham AFC

Filling the tractor trailer spreader.

Firstly, the tractor trailer spreader will reverse up to the silo, there will be a silo operator present.

- Once in its correct location the tractor operator will turn off the tractor.
- Then between the silo operator and the tractor operator the fill pipe will be connected to the silo into the trailer.
- The safety pins will then be installed through the couplers to ensure that there's no chance that the pipe can become loose from the silo.
- Once both the operators and are happy that the pipe is connected and secured then the process of filling the trailer can commence.
- At this point both the operators will ensure that a mask, glasses, ear protection and gloves are being worn. No other personnel to enter area.
- The silo compressor then be started to "blow" the lime / cement into the trailer.
- If there is too much airborne dust the operation is STOP and the issue is to be reported immediately to site management
- The valve will then be opened to build the pressure in the silo to pump through the lime/cement into the trailer.
- The silo operator will keep an eye on the pressure gauge to ensure the pressure stays below 1bar.



-
- This can be controlled by opening and closing the valve.
- Shutting the engine off on the silo will ensure that the pressure stops building if it can't be controlled with the valve.
- Once the trailer is full the tractor op will signal the silo operator to stop
- The silo operator is to stand at the engine end of the silo during the filling process to shut the engine off in case of any malfunction to the silo. Cement will be pushed into the tractor trailer by the silo operator. Once full the silo operator will stop the silo compressor.

Filling of the Wirtgen

Firstly, the Wirtgen will reverse up to the silo, the silo operator will be present at all times to assist when reversing.

- Then between the silo and Wirtgen operators the fill pipe will be connected to the silo and the Wirtgen.
- The safety pins will then be installed through the couplers to ensure that there's no chance that the pipe can become loose from either the silo or the Wirtgen.
- Once both operators are happy that the pipe is connected and secured then the process of filling the Wirtgen can commence.
- At this point both the operators will ensure that a masks, glasses, ear protection and gloves are being worn NO other personnel to enter area.
- The silo compressor then be started.
- The valve will then be opened to build the pressure in the silo to pump through the Cement into the Wirtgen.
- The silo and Wirtgen operator will keep an eye on the pressure gauge to ensure the pressure stays below 1 bar.
- 

-
- This can be controlled by opening and closing the valve.
- Shutting the engine off on the silo will ensure that the pressure stops building if it can't be controlled with the valve.
- Once the Wirtgen is full there is a loud audible siren which notifies you, there is also a flashing beacon which shows you it is full also.
- The silo operator is to stand at the engine end of the silo during the filling process to shut the engine off in case of any malfunction to the silo or the Wirtgen.

Maintenance

- Every day the silo and the Wirtgen is to be inspected prior to and after every shift.
- The Wirtgen will be empty of lime every night to ensure no blockages occur.
- The fill pipe is to be cleared out using drain rods regularly to prevent blockages.

METHOD OF WORKS			
Section:	Wrexham AFC Enabling Works		Ref:C0677 Wrexham AFC

Additional Safety Measures

- Correct PPE to be always worn.
- Minimum steel toe boots with steel insole, Hi Viz Vest, gloves, masks, light eye protection and hard hat.
- COSHH
- All plant and equipment will be inspected daily at the start of each shift and recorded on a daily checklist form. Additionally, these checks will be recorded weekly and logged within the PUWER and LOLER registers.
- Permit to dig issued by PPOC and approved by Mclaren Construction
- All operatives to be briefed by PPOC Works Manager/Site Manager at the start of each shift and recorded on a Daily Activity Briefing Sheet
- Site management to brief permit to dig to PPOC operatives prior to the start of any works. All operatives involved within the works to understand and sign onto the permit.

- Safety Notes
  a. Existing Hoarding fencing shall stop other people entering the works. any issues report to Mclaren site manager. Keep gates closed where possible. Vehicles reversing into work areas shall be marshalled in under the supervision of a vehicle banksman. They will also have the orange beacons flashing.
  b. Mclaren shall issue a permit to dig and are responsible for the 1st service survey. If services located stop work and report to Mclaren. Any damage to services found stop work and report immediately to site management.
  c. Any lifting operations will require a lift plan.
  d. All personnel will be site inducted to Mclaren induction. Daily briefings must be attended by all PPOC personnel.
  e. all personnel will provide the current certificates.
  f. All plant certificates to be on site before the item of plant commences work.
  g. Manual handling. where possible eliminate manual handling ie use the excavator. If not possible assess the weight can 2 people lift? Am I able to lift this weight. Keep back as straight as possible and lift from the legs, do not twist whilst lifting. Any issues with lifting talk to Site management before lidfting

Welfare Arrangements

Site accommodation supplied by Mclaren.

RISK ASSESSMENT			
Section:	**Wexham AFC Enabling Works**	Activity: Cut and fill with Cement Modification	

		Person at Risk				Evaluation			
Item No.	**SIGNIFICANT RISKS / HAZARDS**					**High Medium Low**	**CONTROL MEASURES**	**ACTION BY**	Residual Risk after Control Measures
1	**Slips, trips & falls** **Risk of injury, death**	√				**Med**	- Operatives & Supervision are to review the working areas and be aware of any issues that could result in operatives slipping, tripping and falling.	PPOC Operative and Supervisor	**Low**
2	**HAVS & WBVS**					**N/A**	-	PPOC operatives	**N/A**
3	**Vehicle Movements** **Risk of crush injuries/ death**	√	√			**High**	- Personnel in the pickup to wear seat belts as per the Law - Flashing lights to be in use on the pickup. - Keep to speed limits. - Do not park on roads inside the estate £100 fines. All reversing shall be under the supervision of a vehicle banksman. - Be aware of pedestrians. - Be aware of other vehicles	PPOC Operatives	**Low**
4	**Manual Handling** **Risk of injury**	√				**Med**	- Use correct manual handling techniques. Best one use the excavator with a lift plan -	PPOC Operatives	**Low**
5	**Service Strikes** **Risk of electrocution, burns, drowning, asphyxiation causing injury / death**	√	√	√	√	**HIGH**	- The potential with a service strike could be extreme with danger to workforce. Reputation will also be damaged. - Permit to dig from client. - Excavation works will be carried out using CAT - Services will be marked up using road marker. - Services if found damaged stop work and report immediately. - Do not use services as hop up, protect and support if required	PPOC operatives and Supervision with Marshalls supervision	**LOW**

RISK ASSESSMENT			
Section:	**Wexham AFC Enabling Works**	Activity: Cut and fill with Cement Modification	

		Person at Risk				Evaluation			
Item No.	**SIGNIFICANT RISKS / HAZARDS**					**High Medium Low**	**CONTROL MEASURES**	**ACTION BY**	Residual Risk after Control Measures
6	Plant movements Risk of crush injury/ death	√				**High**	- Do not pass moving plant within the working area unless necessary. When passing use thumbs up. Wait until driver responds with thumbs up before passing. - Minimise people movements inside the fenced area. Keep out visitors where possible and stop work if required0	PPOC Operatives, Supervisors and visitors	**Low**
7	Noise Risk of earring injury / deathless	√				**HIGH**	- Keep personnel away 20m away. - . try having a conversation 10m area, if a problem noise exclusion zone needs moving - Writgen driver will wear ear protection whilst operating	PPOC Operatives, Supervisors and visitors	**Low**
8	Dust from lime /cement filling Dust related injuries/ eye injuries	√				**High**	- Follow filling procedure. - There should be minimal dust with the ground being wet. Driver to have minimum FFP3 protection. Anyone who encounters lime to wear Gloves, Googles, high vis, boots and FFP3 dust masks	PPOC Operatives, Supervisors and visitors	**Low**
9	Loading / unloading of wagons. Causing crush injuries/ death Falling objects causing injury death	√	√		√	**High**	- Follow filling procedures for filling lime cement. - No one to walk near to wagons or excavators loading/ unloading. Use thumbs up system. - Loads are to be checked by wagon driver for safety and security of load. - Tyres to be checked prior to entering public highway. - Road sweeper available full time - Wagon driver to be happy with nature of ground prior to tipping load. - If wagon driver exits wagon on site full PPE must be worn - Wagon drivers are to observe Highway code but give way to 3rd party vehicles & pedestrians. - PC to provide advanced warning signage. Wagons are to proceed to the works area upon confirmation that the area is clear by PPOC banksman.	PPOC Operatives, Supervisors, public and visitors	**Low**

RISK ASSESSMENT			
Section:	**Wexham AFC Enabling Works**	Activity: Cut and fill with Cement Modification	

		Person at Risk				Evaluation			
Item No.	**SIGNIFICANT RISKS / HAZARDS**					**High Medium Low**	**CONTROL MEASURES**	**ACTION BY**	Residual Risk after Control Measures
10	Failure of plant	√	√			**MED**	- Plant to be well maintained & certified. - Plant daily checks to be done and recorded. - PAT testing on electrical equipment - If issues with plant report to site management and plant manager. Plant manager will then decide what action is required	Site management , operators, fitters and plant manager	**Low**
11	Environment Potential damage to the environment and prosecution Possible dermatitis, eye injury causing blindness Dusts	√				**HIGH**	- No works outside Mon-Fri 8am-5pm and Sat 8am-1pm - If dust from filling or operations Stop work and inform site management - Spill kits available from fuels - Personnel trained in use. - Static plant to be placed on plant nappy - COSHH attached. Wear correct PPE. - Report spills asap, Contain Spill then clean up and dispose of correctly	Site Management, site operatives	**Low**

TASK SHEET

Project: **Wrexham AFC Enabling Works**

Section: **Proposed footprint to new KOP Stand**

Location: **Wrexham AFC**

Activity: **Modification of two number 300mm layers (one in-situ & one placed)**

Task Sheet Ref No: C0677 RAMS 004 Cement Modification

Revision: 0

No.	Name(print)	Employer (print)	Signature	Date	By Who
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					

Information Classification: Public

COSHH ASSESSMENT FORM – Cement Powder/Wet cement

COSHH Risk Assessment No:	**PPOC-CA024**					
Name of Hazardous Substance:	**Cement Powder/Wet Concrete**					
Manufacturer/Trade Name (Where applicable)	**N/A**					
Activity Substance is used for	**Building**					
Description: e.g. solid, liquid, gas, Vapour, etc	**Dust and liquid**					
Frequency of Use:						
Quantities to be used:						
Hazard data sheet attached:	**YES**	**IS Health Surveillance Required?** YES/NO* delete not applicable **IF YES Give Details** Continue on separate sheet if needed				
Size of container or quantities in litres/kg (tick as appropriate)	**< litre**	> litre	5 litre	10 litre	20 litre	Other specify
	<1Kg	>1Kg	5Kg	10Kg	25Kg	

HAZARD (tick all that apply)

Toxic	Flammable	Caution	Corrosive	Pressurised Gas	Environmental
					
		x	x		

Long term health risk	Explosive	Oxidiser	Exposure Levels - OEL	OTHERS
				Not classified as dangerous according to EC criteria
x				

Likely route of entry to body: (tick all that apply)	Inhaled	Ingested	Absorbed by skin	Eyes	Other
	x	x	x	x	

FIRST AID

Eyes	Wash immediately with clean water for at least 15 minutes & seek medical advice.
Skin	Wash with soap & water. If pain or other skin trouble seek medical advice.

Inhalation	Move to fresh air. If nose or airways become inflamed seek medical advice
Ingestion	DO NOT induce vomiting. Wash out mouth with water. Drink plenty of water. Seek medical advice.
Dealing with a Spillage	Cement dust – use vacuum if possible or dust up and use a dust mask

Disposal: **ACCORDING TO LOCAL REGULATIONS** **By Products: NONE**	**Additional Advice available from:** **HSE** **http://www.hse.gov.uk/pubns/cis26.pdf**

CONTROL MEASURES

Can the substance be use be substituted by another less harmful	(tick as appropriate)	**YES**		**NO**	**x**
Is monitoring required?	Provide details	**YES**		**NO**	**x**
Local exhaust ventilation required?	Is LEV tested and maintained	**YES**		**NO**	**x**
Is a documented working method available on safe use and handling?	RAMS	**YES**	**x**	**NO**	

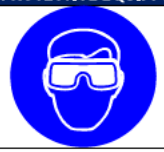
Storage restricted to minimum practical amounts unless otherwise stated	**Storage restricted to: - Away from heat sources of ignition**	**Secure store out of reach of service users and children**	**Store to be well ventilated: - below 25 °**	**Separate storage facility available or required**	**Other** **Dry areas for cement bags**

- **State any special requirements:** (not listed above) including Fire Precautions

Method of use. (tick as appropriate)	**Use undiluted**	**Use diluted**	**Wash hands after use**	**Do not mix with other products**	**Special precautions**
			x		

Special or other precautions: (state)

PERSONAL PROTECTIVE EQUIPMENT REQUIREMENT. (tick as appropriate)

			
Face Protection	**Eye Protection** **x**	**Dust Mask** **x**	**Respirator**

			
Overalls x	**Apron**	**Foot Protection**	**Gloves** x

Providing that the above conditions are complied with the use of this substance can be regarded as having an adequate level of Risk Control.

Assessment carried out by: Portia Reece
Date: August 2016

Review Timetable

Review No. 1		Review No. 2		Review No. 3		Review No. 4	
Name	Portia Reece	Name	Portia Reece	Name		Name	
Signature		Signature		Signature		Signature	
Due Date:	Aug 2015	Due Date:	Aug 2016	Due Date:		Due Date:	
Actual Date:	13/08/15	Actual Date	16/06/2016	Actual Date		Actual Date	

Job Number	Date	Name	Signature

ALL SITE OPERATIVES MUST BE SIGNED UP TO THIS COSHH SHEET IF THE SUBSTANCE IS PRESENT ON SITE!

COSHH ASSESSMENT FORM – Cement Powder/Wet cement

COSHH Risk Assessment No:	**PPOC-CA024**					
Name of Hazardous Substance:	**Cement Powder/Wet Concrete**					
Manufacturer/Trade Name (Where applicable)	**N/A**					
Activity Substance is used for	**Building**					
Description: e.g. solid, liquid, gas, Vapour, etc	**Dust and liquid**					
Frequency of Use:						
Quantities to be used:						
Hazard data sheet attached:	**YES**	**IS Health Surveillance Required?** YES/NO* delete not applicable **IF YES Give Details** Continue on separate sheet if needed				
Size of container or quantities in litres/kg (tick as appropriate)	**< litre**	> litre	5 litre	10 litre	20 litre	Other specify
	<1Kg	>1Kg	5Kg	10Kg	25Kg	

HAZARD (tick all that apply)

Toxic	Flammable	Caution	Corrosive	Pressurised Gas	Environmental
					
		x	x		

Long term health risk	Explosive	Oxidiser	Exposure Levels - OEL	OTHERS
				Not classified as dangerous according to EC criteria
x				

Likely route of entry to body: (tick all that apply)	Inhaled	Ingested	Absorbed by skin	Eyes	Other
	x	x	x	x	

FIRST AID

Eyes	Wash immediately with clean water for at least 15 minutes & seek medical advice.
Skin	Wash with soap & water. If pain or other skin trouble seek medical advice.

Inhalation	Move to fresh air. If nose or airways become inflamed seek medical advice
Ingestion	DO NOT induce vomiting. Wash out mouth with water. Drink plenty of water. Seek medical advice.
Dealing with a Spillage	Cement dust – use vacuum if possible or dust up and use a dust mask

Disposal: **ACCORDING TO LOCAL REGULATIONS** **By Products: NONE**	**Additional Advice available from:** **HSE** **http://www.hse.gov.uk/pubns/cis26.pdf**

CONTROL MEASURES

Can the substance be use be substituted by another less harmful	(tick as appropriate)	**YES**		**NO**	**x**
Is monitoring required?	Provide details	**YES**		**NO**	**x**
Local exhaust ventilation required?	Is LEV tested and maintained	**YES**		**NO**	**x**
Is a documented working method available on safe use and handling?	RAMS	**YES**	**x**	**NO**	

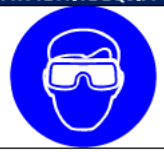
Storage restricted to minimum practical amounts unless otherwise stated	**Storage restricted to: - Away from heat sources of ignition**	**Secure store out of reach of service users and children**	**Store to be well ventilated: - below 25 °**	**Separate storage facility available or required**	**Other** **Dry areas for cement bags**

- **State any special requirements:** (not listed above) including Fire Precautions

Method of use. (tick as appropriate)	**Use undiluted**	**Use diluted**	**Wash hands after use**	**Do not mix with other products**	**Special precautions**
			x		

Special or other precautions: (state)

PERSONAL PROTECTIVE EQUIPMENT REQUIREMENT. (tick as appropriate)

			
Face Protection	**Eye Protection** **x**	**Dust Mask** **x**	**Respirator**

			
Overalls x	**Apron**	**Foot Protection**	**Gloves** x

Providing that the above conditions are complied with the use of this substance can be regarded as having an adequate level of Risk Control.

Assessment carried out by: Portia Reece
Date: August 2016

Review Timetable

Review No. 1		Review No. 2		Review No. 3		Review No. 4	
Name	Portia Reece	Name	Portia Reece	Name		Name	
Signature		Signature		Signature		Signature	
Due Date:	Aug 2015	Due Date:	Aug 2016	Due Date:		Due Date:	
Actual Date:	13/08/15	Actual Date	16/06/2016	Actual Date		Actual Date	

Job Number	Date	Name	Signature

ALL SITE OPERATIVES MUST BE SIGNED UP TO THIS COSHH SHEET IF THE SUBSTANCE IS PRESENT ON SITE!

COSHH Risk Assessment

COSHH ASSESSMENT SHEET							
Name of Substance:	Lime Based Mortars				COSHH Reference:	CA080	
Supplied by:	Tarmac Building Products Ltd i10 Building Railway Drive Wolverhampton WV1 1LH Tel: 0333 003 4555 E-mail: mortar.internalsales@tarmacbp.co.uk				Date of Assessment:	27.02.24	
Person(s) at Risk:	User(s) of the products	☒	Members of the Public	☐	Review Date:	27.02.25	
	Other Workers	☒	Young/Pregnant Persons	☐			
Assessor *(Print name)*:	Aaron Watson				Job Title:	HSEQ Manager	
Description of Substance	Powder				Method of Use:	Applied to ground during earthworks operations	
Location of Substance:	On-Site				Business Unit:	Civils	

SUBSTANCE PROPERTIES								
								
Flammable	Oxidising	Explosive	Health Hazard	Acute Toxicity	Serious Health Hazard	Hazardous to the Environment	Corrosive	Compressed Gas
☐	☐	☐	☒	☐	☐	☐	☒	☐

ROUTE(S) OF ENTRY					
Skin	☒	Eyes	☒	Inhalation	☒
Ingestion	☒	Cuts/Abrasions	☐	Injection	☐

PPE REQUIREMENTS					
					Other: RPE ☐ **RPE is required if a person is potentially exposed to dust levels above exposure limits.** **Wear impermeable boots to protect feet. Safety wellington boots should be worn if working with wet product, with waterproof trousers.**
Eye Protection	Respiratory Protection	Face Shield	Protective Clothing	Hand Protection	
☒	☐	☐	☒	☒	
Tight fitting goggles with side shields, or wide vision full goggles.	*List what is required:*	*List what is required:*	**Long-sleeved jackets and full length trousers**	**Safety gloves**	
Hazard & Precautionary Statements:					Workplace Exposure Limits (WEL):

Hazard statements: • H318: Causes serious eye damage. • H315: Causes skin irritation. • H335: May cause respiratory irritation. **Precautionary statements** • P102: Keep out of reach of children. • P280: Wear protective gloves/protective clothing/eye protection/face protection. • P305+P351+P310: IF IN EYES: Rinse cautiously with water for several minutes. Immediately call a doctor/111. • P302+P352: IF ON SKIN: Wash with plenty of water • P261: Avoid breathing dust/spray. • P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing • P501: Dispose of contents/container according to local regulations	Total dust – W.E.L. • 10mg/m3 • 8 Hrs T.W.A. Respirable dust - W.E.L • 4mg/m3 • 8 Hrs T.W.A

Conditions & Materials to Avoid:	Avoid humid conditions which may cause lump formation and loss of product quality	Hazards Arising from the Substance:	Calcium dihydroxide reacts exothermically with acids when heated above 580 °C, Calcium dihydroxide decomposes to produce calcium oxide. Calcium oxide reacts with water and generates heat. This may cause risk to flammable material.

Frequency & Duration of Exposure

Amount Used		How many times per shift		Duration	
Small (Millilitres)	☐	1-5	☐	1-5 minutes	☐
Medium (Litres)	☐	5-10	☒	6-30 minutes	☐
Large (Cubic Metres)	☒	More than 10	☐	30 minutes-1hr +	☒

CONTROL MEASURES

Emergency No (provided by suppliers in MSDS)	First Aid Measures
• UK Emergency Number: 999 • Tarmac Building Products (during office hours): 0333 003 4555	**Inhalation (dust)** Move to fresh air. Dust in throat and nasal passages should clear spontaneously. Seek medical attention if irritation persists or later develops or if discomfort, coughing, or other symptoms persist. **Eye contact** Lime based products can cause serious and permanent damage to the eyes therefore speed is essential. Immediately wash eyes with plenty of eyewash solution or running water, holding eyelids apart for 15 minutes. Do not rub eyes to avoid possible cornea damage because of
Accidents Release Measures	
Wear suitable protective equipment, follow spillage	

procedures in this document.	mechanical stress. Always seek immediate further specialist medical/eye specialist attention to check that all particles have been removed and examine eye for damage. **Skin contact** Remove affected clothing, footwear, watches, jewellery etc. Wash skin with soap and water immediately. Wash contaminated clothing before re-use. Seek medical attention if irritation occurs. **Ingestion** Immediately rinse mouth and drink plenty of water. Do not induce vomiting. Seek immediate medical advice if person becomes uncomfortable. Show the container or label used.
Fire Procedures	Spillage Procedures
The product is not combustible. Use a dry powder, foam, or CO2 fire extinguisher to extinguish the surrounding fire.	Do not wash product down sewage and drainage systems or into bodies of water (e.g. streams). **Dry product -** Use cleanup methods such as vacuum cleaning-up or vacuum extraction fitted with EPA/HEPA air filters which do not cause airborne dispersion. Never use compressed air. Alternatively, wipe-up the dust by mopping, wet brushing or by using water spray or hoses (fine mist to avoid duct becoming airborne) and remove slurry. If not possible, remove by slurrying with water (see wet product). If only dry cleaning by brushing can be done, ensure all appropriate personnel wear correct PPE including dust mask and eye protection. Avoid inhalation of dust and place in a container and dispose of. **Wet product -** Clean up wet material and place in container or controlled location. Allow material to dry and solidify before disposal.
Handling/Storage Requirements	Disposal Considerations
Precautions for safe handling - Protective Measures Avoid contact with skin and eyes. Wear protective equipment as per PPE requirements in this document. Do not wear contact lenses when handling this product. It is also advisable to have individual pocket eyewash. Keep dust levels to a minimum. **Advice on general occupational hygiene** Avoid inhalation or ingestion and contact with skin and eyes. General occupational hygiene measures are required to ensure safe handling of the substance. These measures involve good personal and housekeeping practices (i.e. regular cleaning with suitable cleaning devices), no drinking, eating, and smoking at the workplace. Shower and change clothes at end of work shift. Do not wear contaminated clothing at home.	**Product – unused residue or dry spillage** Pick up dry unused residue or dry spillage as is. Mark up containers. Possibly reuse depending upon shelf-life considerations and the requirements to avoid dust exposure. In case of disposal, harden with water and dispose of as below. **Product – slurries** Allow to harden, avoid entry in sewerage and drainage systems or into bodies of water. Dispose of as solid waste. This is not classed as a dangerous waste. **Packaging** Completely empty, clean packaging to be disposed in

Conditions for safe storage, including any incompatibilities. The substance should be stored under dry conditions. Any contact with air and moisture should be avoided. Bulk storage should be in purpose–designed silos. Keep away from acids, significant quantities of paper, straw, and nitro compounds. Keep out of reach of children. Do not use aluminium for transport or storage if there is a risk of contact with water.	accordance with local legislation.

COSHH ASSESSMENT COMMENTS
Most important adverse effects: Direct contact will cause effects ranging from moderate irritation to chemical burns and blindness. Long term exposure to dust can lead to the lung disease. Delay in treating eye contact can lead to serious and permanent eye damage.

COSHH DECLARATION AND SIGN-OFF		
The task is safe to be carried out with current control procedures.	☐	Tick if no further action is required.
The task is safe to be carried out subject to actions listed	☒	Tick if use of the substance is not causing significant problems but requires some action to bring is within COSHH guidelines. Actions must set with specific dates for completion.
The task/substance is unsafe, significant compliance with health & safety standards	☐	Tick if the task or substance has the potential to cause significant problems to users. Use of the substance is to be discontinued until problems highlighted are rectified, consider issuing Safety Alert if the product is used across the business.
The task/process should be re-assessed on a regular basis either annually, or if there are significant changes to the task or process or if there is a significant change in personnel who carry it out it e.g. young/inexperienced workers, pregnancy, workers with pre-existing conditions such as asthma, dermatitis, etc.		
Assessor Name: Aaron Watson		Date: 27th February 2024

ALL SITE OPERATIVES MUST BE BRIEFED ON THE CONTENTS OF THIS COSHH ASSESSMENT IF THE SUBSTANCE IS PRESENT ON SITE AND YOU ARE LIKELY USE/COME INTO CONTACT WITH THE SUBSTANCE.

Contract Number	Name	Signature	Date

RAMS Evaluation Sheet

Project name	Wrexham AFC Kop Stand	**Project no**	MN1712
Activity	CFA Pilinig	**Subcontractor**	Green Piling
Anticipated start date	3.11.25	**Issue/Revision number**	Rev 1a

Status	Comment
A	Accepted
B	Not accepted. Please incorporate comments and resend.

Please note – ALL comments MUST be incorporated within the RAMS before it will be accepted for implementation. Once Status A achieved, it does not relieve the contractor of their contractual obligations and ownership of the RAMS.

Status	Date Received	Date Sent
Status A - Accepted	14-10-2025	14-10-2025

For MCL Use ONLY

Appraisal Signatories	Name	Position	Signature	Date
Reviewed	Mark Standeven	Senior Site Manager	[redacted]	14-10-2025
Status A achieved	Mark Standeven	Senior Site Manager		14-10-2025

The RAMS documentation submitted by the subcontractor should include the following			
RISK ASSESSMENTS	Yes	PERSONAL PROTECTIVE EQUIPMENT	Yes
COSHH	Yes	EMERGENCY ARRANGEMENTS	Yes
FULL DESCRIPTION OF METHODOLOGY AND SEQUENCE OF WORK	Yes	MATERIALS, WASTE REMOVAL HOUSEKEEPING AND STORAGE	Yes
ACCESS / EGRESS	Yes	ENVIRONMENTAL	Yes
OCCUPATIONAL HEALTH	Yes	LOGISTICS	Yes
WORK AT HEIGHT	Yes	TECHNICAL INFORMATION	Yes
PLANT / EQUIPMENT/TOOLS	Yes	COMMUNICATION/MANAGEMENT/ TRAINING	Yes
PERMITS	Yes	COVID-19 RISK ASSESSMENT	Yes
Please note – referring to the RAMS Pro Forma (SAF 072) will assist in what information is needed			

McLAREN

Comments	Initials	
	M S	
Continuation Sheets Used	Yes/No	No

CFA Risk Assessment and Method Statement (RAMS)

Greenpiling

Contract Number	17383
Contract Name	Wrexham AFC
Site Address	Wrexham AFC, Crispen Lane, Wrexham, Wales, LL11 2A
What3Words	gift.handle.called
Principal Contractor	Mclaren Construction
Site Contact	Jeff French, Project Director, Jeff.French@mclarengroup.com
Green Piling Contacts	Scott Farrar, Senior Contracts Manager, 07595895376, scott.farrar@greenpiling.co.uk
	Tom Campbell, Contracts Engineer, 07843805795, tom.campbell@greenpiling.co.uk
	Kevin Wood, Contracts Director, 07738545133, kevin.wood@greenpiling.co.uk
	Gary Levers, HSEQ Manager, 08450 511 800, gary.levers@greenpiling.co.uk

SCOPE OF WORKS				
Description of Works	Green Piling have been instructed to undertake the design, supply, installation and testing of continuous flight auger piles. Testing: 4nr Static tests are required along with 100% Integrity testing of all CFA. Green Piling require two clear days notification when integrity testing is required. The site will be maintained by Mclaren Construction with suitable fencing. All deliveries and placement of machine and plant will be agreed with prestart meetings. Any movement will be liaised onsite between site team and supervisors. Concrete will be delivered from the most suitable batching plant for emissions, working time and delivery leads. Other information: Supply and fix de-bonding foam to all rebar cages. Foam will only be placed to a tolerance of -150/+150mm to a target level of 150mm above pile cut off level. No cutting down of piles has been allowed and an element of hand trimming will be required. Engineering level control is to be provided by others			
	Pile No	321	Pile Diameter	600mm
Piling Rig info	Soilmec SR75			
Restrictions	Working in close proximity to rail infrastructure – the piling rig will be set up on the building footprint and will remain in this zone for the duration of the works.			
Setting out by:	Name of Company – full 10hr attendance inclusive of mobilisation and de-mobilisation periods).			
Working Hours	08:00 To 18:00			

Revision Status

Initial	Name	Position	Signed	Date
Prepared By	Scott Farrar	Contracts Manager		
Received By		Piling Foreman		
Acknowledgement By				

Revisions

Rev	Date	Status / Description
0	01/10/2025	Construction Issue
1.1	14.10.25	Kelly tanks, emergency arrangements added (pages 6,7, 16).

INDUCTION AND DISTRIBUTION OF INFORMATION IN THIS DOCUMENT

This method statement MUST BE briefed to the foreman responsible for the works. After the site induction the site foreman shall brief all site operatives and sub-contractors on site before commencing work. Everyone must sign off on the method statement to confirm that they have been briefed and that they understand the risks, controls and their responsibilities. Where work cannot be carried out in accordance with this method statement the foreman shall stop work and discuss any concerns with the contracts manager/ engineer and await further instructions. All site operatives and sub-contractors shall then be briefed on any changes to the method of work.

PILING AREA VISITOR INDUCTION & RULES

Green Piling Foreman is directly responsible for the safe operations under his control within the piling area on site including any visitors to the piling area. Unless it is necessary to do so it is important that no one should enter the piling area. It is accepted that some persons other than the piling crew may want or have cause to enter the piling area such as Site Managers, Setting Out Engineers, Testing Technicians or Green Piling Supervisors, Fitters or Advisors. This advice and control is necessary to ensure their safety in this area

The key risks associated with CFA piling are

- Plant & vehicle movements
- Falling spoil
- Pumping concrete under pressure
- Lifting operations,
- Slips & trips on uneven ground or completed pile positions

All visitors must have had a site induction by Mclaren Construction

Any contractor or visitor must be inducted by the Piling Foreman and follow all necessary instructions given by either the Foreman, the Rig Attendant or the Pumpman.

You must be wearing all mandatory PPE. If you approach the concrete plant you will need hearing protection and light eye protection

The piling area shall be dedicated to piling personnel; with other contractors excluded without permission to enter. It should be assumed that the piling area is 18m from any part of piling rig or any physical barriers closer.

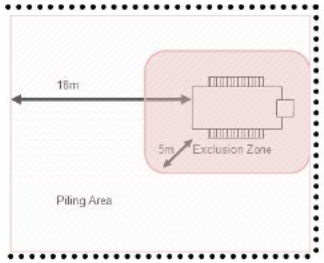
Visitors must always be in a position of safety clear of operations outside the piling area until permitted to move closer. If you need to enter the piling are to observe or take measurements, the Foreman will indicate where you are to stand which should in all cases be in direct line of site of Rig Operator in front and at least 5metres from the rig.

Be aware that in addition to the rig, there will be excavators and dumpers moving around site. Each machine type has their own exclusion zone (drawings below)

You must get the thumbs up before passing or approaching. Do not approach on the blind sides of machines.

In no instances should other work be undertaken within the piling area whilst rig is moving or without controls. Either rig will stop or you must ask Piling Foreman and/ or Mclaren Construction to erect a segregation barrier.

It is expected that rig movement will not re-commence until you have safely left the piling area
It is important that the Piling Foreman knows that you are leaving piling area. Let them know



Segregation Barrier to be erected and maintained by Main Contractor

Any breaches of exclusion zone must be notified to site agent

On first instance of any breach works will stop and it is expected that A toolbox talk will be given to all operatives onsite.

DO NOT RE-ENTER PILING AREA WITHOUT FOLLOWING THIS PROCEDURE AGAIN. ASK YOURSELF IF YOU NEED TO BE IN PILING AREA? IF YES DOES RIG NEED TO BE OPERATIONAL?



CFA Risk Assessment and Method Statement (RAMS)

Greenpiling

BRIEFING PAGE

By signing this method statement, I confirm that I have been briefed on its contents and understand my personal responsibilities to work in accordance with the RAMS and to **not undertake anything which adversely affects my own safety, or that of others.**
I understand that I must stop work and notify my Line Manager if I cannot complete my work in accordance with this method statement.
I understand that I have a responsibility to challenge & report unsafe acts and conditions;
All accidents must be reported directly to the Green Piling HSQE Dept. on **08450 511800**
Make sure all permits are in place.
You must wear your PPE in accordance with the site rules and this RAMS. PPE must be maintained in a reasonable condition. The wearing of shorts is not permitted
You must not attempt to start work if you are in possession of, under the influence of alcohol or illegal substances. You may be tested at any time under the Green Piling Policy.
Your work must stop and be reviewed if it is putting members of the public or other contractors at risk.
You must only carry out work for which you are trained and competent.
Edge protection or fall arrest must be in place for work at height.
All plant and equipment must be inspected and maintained in good working order.
Use the correct tools and equipment for the task at hand. DO NOT IMPROVISE.
All work areas must be kept clean and tidy. All COSHH spills to be cleared up promptly. All debris to be placed in the correct waste skip.
Mobile Phones must only be used in a position of safety

Site Risks, specific to this job

OH cables / obstacles	☐	UG services / voids	☐	Watercourses	☐
Close proximity to public	☐	Railways	☐	High risk trades (lifting, demolition etc)	☒
Contamination	☐	Highways	☐	Schools / colleges / hospitals	☐

Name	Position	Signed	Date

EXCAVATOR DRIVERS

Only operate the machine in accordance with manufacturers instructions.
When attaching/detaching lifting accessories or loads, the machine controls must be isolated to prevent accidental movement.
Never move the machine or load until instructed to do so by a banksman, and only once everyone is clear of the slew area.
Never lift with a bucket attached. Keep loads under control whilst lifting and travelling.
I have familiarised myself with the machine and understand its capabilities and limitations for lifting loads.

Name	Position	Signed	Date

No departing from the methods in this document is allowed without written addendums produced by the contract's manager/ engineer. All operatives can stop the works if considered unsafe in anyway.

CFA Risk Assessment and Method Statement (RAMS)

Greenpiling

RESOURCES

Staff

Key Responsibilities

Working Piling Foreman is the point of contact with the Principal Contract and is almost always in full time attendance, in direct control of all resources onsite to ensure compliance with this Contract Safety Plan, making sure that the Principal Contractor has taken all necessary steps to protect the public and property, and dealing with blockages and other emergency situations safely.

Rig driver is responsible for operating rig and carrying out routine operator checks and maintenance in accordance with manufacturers manual and GPL procedures.

Rig Attendant undertakes banksman/slinger duties, ensuring that exclusion zones around the piling works are maintained, controlling the movement of the rig & attendant excavator and movements and installation of reinforcement cages

Concrete Operative is responsible for carrying out pre-use inspections of the drum and pump, setting up the pump & operating it in accordance with method statement; Controlling the movement of concrete delivery wagons, keeping the concrete area tidy, and undertaking and storing concrete testing cubes and slump tests.

Piling Competences

Matrix shows the minimum training requirement for CFA piling

Position	SSSTS	A48 Piling Rig Bored >20T	A44 Trailer Mounted Concrete Pump	A74 / A40 Rig Attendant / Slinger Signaller	MEWP (3b)	Abrasive Wheels	Emergency First Aid
Piling Foreman	✓				✓		
Rig Driver		✓					
Pump Operator			✓				
Rig Attendant				✓	✓		

In Attendance (Full 10hr attendance inclusive of mobilisation and de-mobilisation periods)

Excavator operator	Must hold recognised competence cards for the equipment provided and be competent to undertake lifting operations. The piling foreman is to check the machine operators plant operator's competence card is in date and covers the plant to be operated. He is also to ensure that the operator is included in the Green Piling inductions and all site safety toolbox talks. As the attendant excavator will be required to work in close proximity to Green Piling personnel the foreman is under instructions to raise with PC any doubts as to the drivers abilities or communication skills, notwithstanding any formal qualifications the driver may have

Plant & Equipment

CFA Piling Rig	Mobile Elevating Working Platform
Trailer mounted concrete pump	Storage Container (COSHH store)
Concrete agitator	Concrete Cube Curing Tank
Compressor	Stihl saw
Bunded Fuel bowser	

All plant will be pre-inspected daily by a competent person. Any immediate problems are telephone directly to the Green Piling plant department or hire company.

The MEWP and all lifting equipment are tested every six months and a thorough examination certificate issued. Pre-inspection is completed before each use and recorded weekly in the inspection report. Plant used for lifting is inspected yearly by a qualified insurance inspector and a Thorough Examination certificate issued. All certificates are held by the Piling Foreman.

All plant will come under PUWER regs. No certifications are required, but the service history is available when requested.

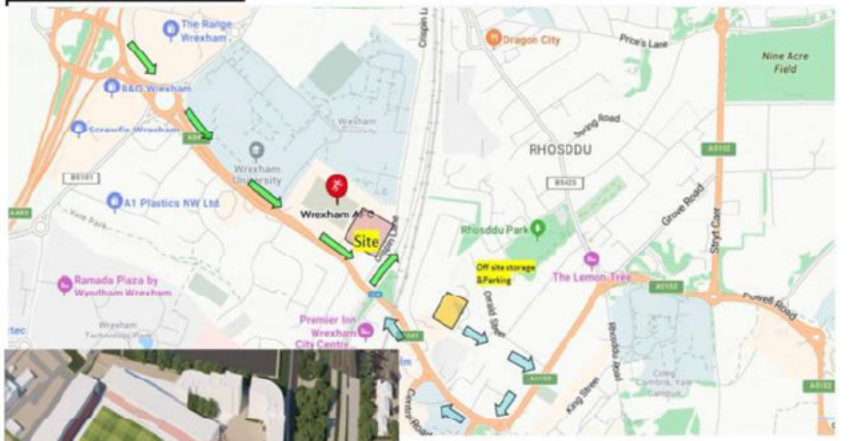
In Attendance

An attendant 360° tracked excavator (minimum 13 tonnes) and dumper is to be provided by Mclaren Construction.

Excavator must be suitable for pick & carry duties with minimum 1T lift capacity. It must be fitted with a suitable lifting eye on the quick hitch or dipper arm to enable a shackle to be attached. Buckets must be capable of being removed for lifts.

Materials

Ready-mixed concrete	Oils, fuels & greases
Reinforcement	Prime-a-pump lubricant

SITE ARRANGEMENTS	
Permits	Ensure the following documents are in place: • Green Piling Permit to Work • Working Platform Certificate • Approved Method Statement • Permit to Dig (provided by Mclaren Construction) • Hot Works Permit (provided by Mclaren Construction)
Site Access	Mclaren Construction is to provide safe means of access and egress to the site and all work areas, including pedestrian and vehicle segregation within the site. **Site Location**   
Public & Adjacent Premises	The site boundary is to be kept secure by Mclaren Construction and is to prevent unauthorised access onto the site. In the event of unauthorised people entering the piling area, the Piling Foreman is to cease all piling operations and ask the people to leave. Piling is not to restart until the piling area is clear. Green Piling Foreman is to ensure that this procedure is strictly enforced
Welfare	Welfare facilities are to be provided by Mclaren Construction and are to be in line with CDM Regulations (2015); it is anticipated that Green Piling will have 4-6No personnel on site per rig. The requirements include: • Washing facilities, including hot and cold running water, soap and drying facilities. • Toilet facilities regularly cleaned and serviced. • Drinking water and drinking vessels. • Suitable clothes changing and overnight drying facilities. • Messing area (Food preparation and heating and means for boiling water).
Piling Platform	Mclaren Construction is to design, construct and maintain, a safe and adequate piling platform for the duration of the contract. The Green Piling Platform Certificate shall be signed by an authorised person from Mclaren Construction to confirm the installed platform is capable of providing a stable base for the rig deployed to site. Piling operations are not to commence until Green Piling have received a signed copy of the Working Platform Certificates and Permit to Dig from Mclaren Construction. The piling platform is to be constructed to safely support the bearing pressures of the Green Piling rig allocated to the project in both its travelling (BRE Load case 1) and working (BRE Load case 2) modes.
Site Ramps	All access ramps constructed by Mclaren Construction are to be a minimum 6m wide at a maximum gradient of 1 in 10, unless specifically agreed in writing by Green Piling. Should the gradient be steeper than 1 in 10, it may be necessary to de-rig the piling rig and lay the mast down to travel safely up or down the ramp, causing unnecessary delay to the piling works. The Piling Foreman is to check the access ramps and ensure that they are adequate for the purpose. In the event that the ramps are deemed inadequate then the travelling operations are to be suspended and Mclaren Construction notified

Buried & Overhead Services	Mclaren Construction are responsible for the location, identification and marking of underground services within the working area, and taking the necessary precautions to protect and avoid them. (eg isolation, diversion, shoring etc) in accordance with HSE guidance HSG47. Green Piling shall be notified of all known services within the piling area and to accurately mark these if they fall within 1.0m of any pile position. All redundant services are to be physically disconnected and capped off by Mclaren Construction at the site boundary. Mclaren Construction and Green Piling are to visually check all piling areas and confirm any changes or additions to the "Permit to Dig".
Other Trades	All other personnel on site are to be notified of piling works to start by Mclaren Construction and told not to enter into the piling area unless specifically involved. In the event of unauthorised contractors entering the piling area, piling is to cease and the contractors asked to leave. Piling is not to restart until the piling area is clear. Green piling Foreman is to ensure that this procedure is strictly enforced. It may be prudent for Mclaren Construction to include a specific section within the site induction regarding Piling and the associated hazards; particularly with regard to hearing protection. If other trades are working near the piling area Mclaren Construction is to provide fencing to segregate the piling area from other operations, the Green Piling Foreman can stop piling works if it is deemed that follow on trades are working too close and effecting the safety of himself and others. If no other trades are working on site segregation may not be required.

Obstructions	If an obstruction is encountered during the boring operation, piling will be suspended and Mclaren Construction notified and an instruction sought from the following options:
	NOTE: Generally normal CFA Piling will not drill through obstructions.
	• Move to another pile position while the obstruction is cleared
	  ○ We will move to another pile position and record the abortive time spent on the obstructed pile.
	• Attempt to bore through the obstruction
	  ○ In these circumstances, we do not accept any responsibility for the pile position remaining within tolerance. We will also record the time spent on boring through the obstruction and will seek additional payment for this time and any abnormal damage to the auger flights.
	  ○ If Green piling can drill through the obstruction, then pile construction will proceed as before.
	  ○ If Green Piling are unable to drill through the obstruction within reasonable time, Mclaren Construction will be notified and asked for further instruction. The abortive time spent on the pile is to be recorded.
	Any abandoned pile position will be backfilled with suitable material. Mclaren Construction is responsible for backfilling any areas where obstructions have been removed. It is vital the backfilled area is properly compacted and the piling platform fully reinstated, including any geo-textile interface, to the original design/ specification.

Setting Out	The pile positions are to be set out during the Piling by a full time Setting Out Engineer. Setting out shall be carried out on site by coordination with the Piling Foreman. The engineer shall set out positions on the platform, denoting each position with a setting out pin covered with a mushroom cap, and the pile reference clearly marked. The sequence will be agreed by the Piling Foreman and carried out prior to piling commencing. Where the engineer is required to take measurements in the vicinity of the rig or concrete pump, this shall be under guidance from the Rig Attendant, and always greater than 5 metres away The Setting Out Engineer must also be included in the Green Piling site safety induction if they are present on site
Site Security	Mclaren Construction is responsible for the provision of site wide security arrangements The Piling Foreman will make sure that adequate measures are taken to prevent the theft or unauthorised use of equipment/ materials. This will include locking away all tools in the van or toolbox, removing keys from plant and equipment where fitted, when not in use and left unattended & using cab guards if fitted.
Concrete Washout	Provision of a suitable wash out area for concrete delivery vehicles. The washout area will be within the site area adjacent to the concrete pump and agitator but 15m away from drains and the watercourses. It will consist of a designated Kelly tanks lined with suitable sediment & pollution control membrane.

PPE Requirements

Item	Standard	Notes
Safety Helmets	EN 397:2012	
Hearing Protection	EN352	Capable of 30dB noise reductions.
Safety Footwear	EN ISO 20345	Toe protection and a midsole protection
High-visibility clothing	BS EN 471	
Eye protection	EN 166-1.F, EN166 1.B	"F" rating is suitable for general work. "1.B" Greater protection for using cut-off saws A mandatory wearing of eye protection policy is in place with the exception of where wearing eye protection may increase the risk of accidents i.e. wet weather working or under artificial lighting.
Gloves	EN388; EN374	Protection from mechanical / chemical risks

EMERGENCY ARRANGEMENTS

Wrexham AFC
Ffordd, Mold Rd, Mold, Wrexham LL11 2AH

Head south-west towards Mold Rd/A541
62 ft

Turn right onto Mold Rd/A541
0.3 mi

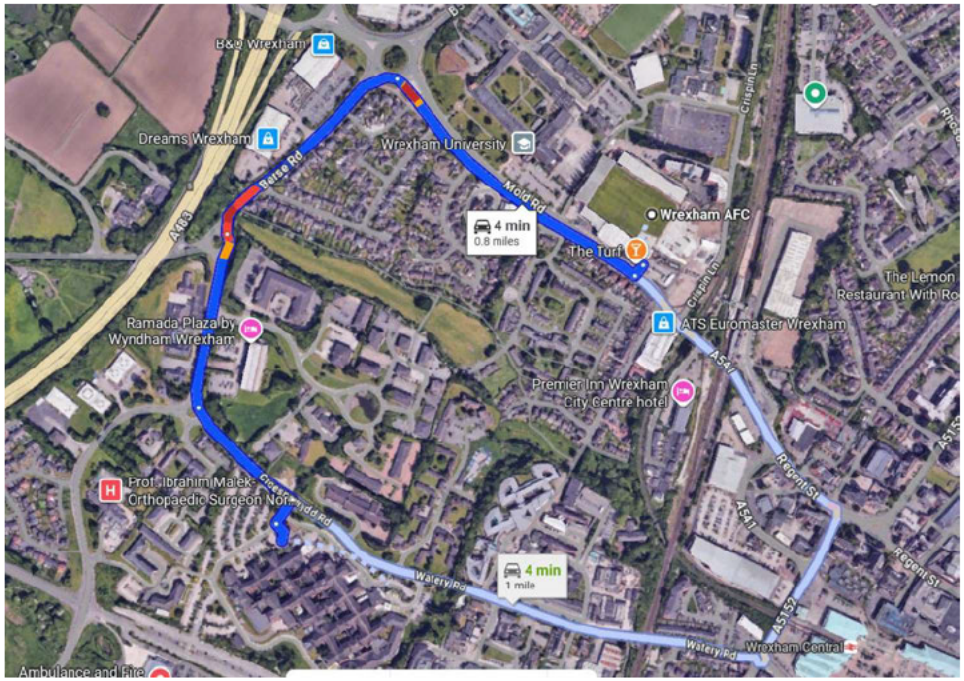
At Plas Coch Roundabout, take the 1st exit onto Berse Rd/B5101
Continue to follow Berse Rd

At the roundabout, take the 1st exit onto Rhyd Broughton Ln
0.2 mi

At the roundabout, take the 1st exit onto Croesnewydd Rd
0.1 mi

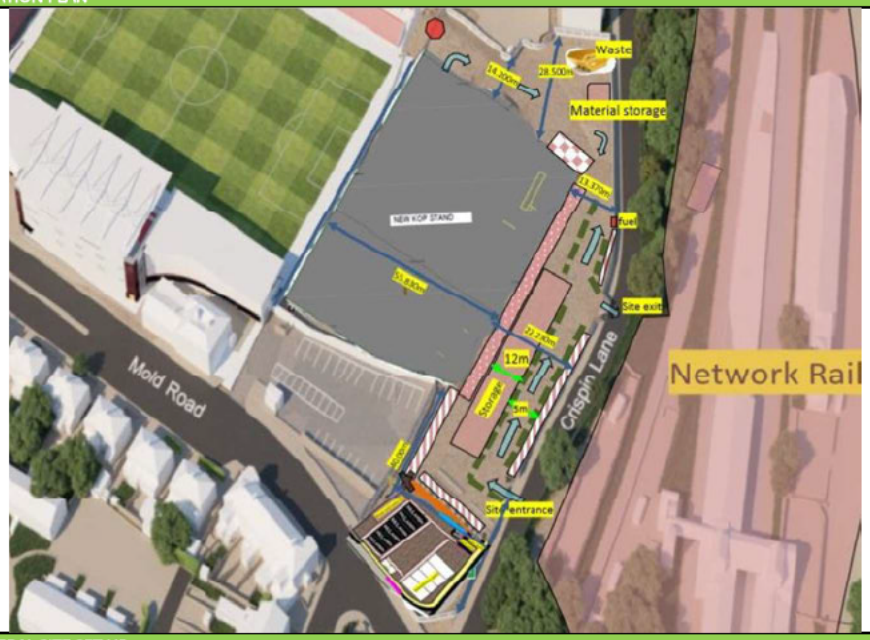
Turn right
135 ft

Turn left
95 ft
Wrexham Maelor Hospital
Croesnewydd Rd, Wrexham LL13 7TD

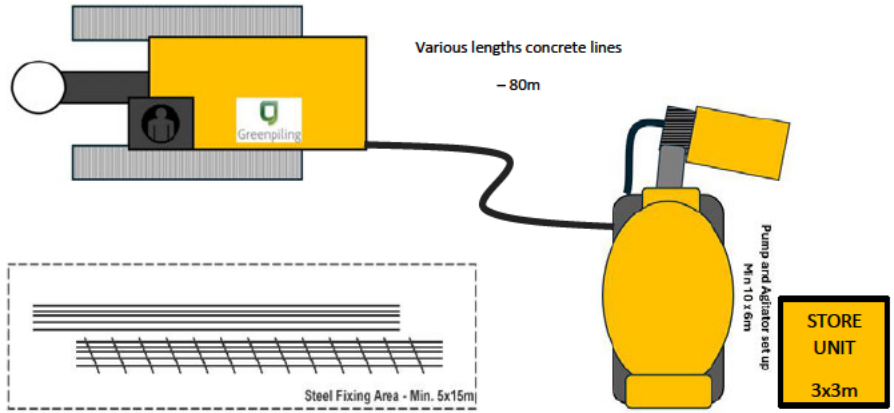


SITE PHOTOS
SUBJECT TO SITE VISIT

LOCATION PLAN



GENERAL SITE SET UP



METHOD STATEMENTS: CFA Piling

Method Statement – Site Mobilisation of Piling Rigs, Equipment & Materials

All arrangements relating to mobilisation will be discussed and confirmed with the Principal Contractor prior to mobilisation.

Piling Foreman to identify himself and report to Site Manager to receive instructions regarding site inductions. Arrangements for off-loading to be re-confirmed and the route and area for low loader and other delivery wagons for offloading inspected.

All vehicles will be supervised by a banksman and enter site as per the designated route agreed. The Foreman shall

- Make sure any building, services or footpath is protected before any unloading takes place. Protection is to be managed and provided by Mclaren Construction.
- Assess the area designated for unloading and storage, taking into consideration available space, surrounding buildings, other contractors, pedestrians, traffic routes etc. Safety barriers may need to be used to segregate the work from other activities and/ or pedestrians.
- Ensure that consideration has been given to the bearing pressure exerted by the rig and the chocks which should not be positioned near services. Protection should be considered on finished road surfaces
- Ensure that the designated offloading positions are firm and level and with sufficient working area. Avoid unloading rigs on inclines.
- Make sure that all loads are checked for security before unloading commences. In the event of a load having moved or become unstable in some way during transport, unloading will not continue until a safe means of unloading has been determined. Unstable loads should not be allowed to tip or fall to the ground unless there are no other safe options and only after a risk assessment has been completed with the Contracts Manager/ Engineer.
- Agree a sequence of unloading with the delivery drivers. All instructions regarding unloading of equipment and materials to come from nominated person.

Unloading Of The Piling Rig

Low loader will be directed to position of dismounting. Should the low loader delivering the piling rig be unable to access directly onto site to deliver the piling rig, Mclaren Construction will be required to provide protection measures to prevent damage to existing carriageway/ pavement and services in close proximity.

Once parked, the rig chains will be released carefully. Wooden "steps" chocks or other protection as required will be placed near low loader where tracks will land.

The Banksman will position himself forward of the loading process so that all rig movements and the rig operator are clearly visible. NO ONE must be allowed to stand at the side or behind the vehicle being unloaded. All instructions to the rig operator must come from a single Banksman.

Where fitted, the rig shall be offloaded using the radio controls. Make sure rig is configured as per the operator's manual so that no parts are "grounded" whilst tracking off the trailer.

Rig will dismount from the low loader and be tracked to point of safety prior to reassembling the low loader.

Unloading Equipment & Materials Using Hiab Or Excavator

Wherever possible items to be lifted shall be delivered in such a way that they are pre-slung and accessible from ground level. Where access is required onto the back of the trailer to sling loads, a secured ladder or step system must be used.

Edge protection shall be fitted to trailers to prevent injury by falls from height, this must consist of two restraints – a top rail at approx. 950mm and a mid rail. Clear walkways must be present to ensure that a person can access and move around the trailer bed safely whilst slinging.

The Hiab shall be set as per the hauliers' procedures on fully extended outriggers placed on spreader pads

The excavator if used will be brought into position near the delivery wagon normally perpendicular to the length of the wagon bed alongside and close to the midpoint of the wagon bed.

Any chains restricting the items to be lifted should be released with caution as these may be under tension due to movements of the load during transport and may cause items to be lifted to move.

Each item shall be securely slung and offloaded in a controlled manner. Lifting accessories should be attached to the items to be lifted equidistant from the centre of the items to be lifted and with sufficient spacing and safety hook attached safely around the lifting equipment.

Any person on the trailer bed, LOOK where you're going – DO NOT walk backwards! DO NOT RUSH! DO NOT USE A MOBILE PHONE!

With the Banksman and wagon driver at safe distance the load should be raised to a maximum height of 500mm from original position. The load should then be examined for any further movement of chains and for evenness of lifting. If satisfactory lifting can continue if not or if there is doubt, load should be lowered and lifting equipment moved to a more satisfactory position.

At no point should loads be lifted above persons or left suspended. Where necessary, tag-lines will be used to prevent the load spinning or move in an uncontrolled manner.

Load to be lifted should be lowered and positioned at the earliest opportunity to a height as close to the piling platform as practical whilst allowing movement of excavator/ Hiab either by slewing or tracking to place the load on the ground, where indicated.

Once in position, detach lifting equipment from load safely. No work at height is required to remove lifting equipment.

Excess material and equipment shall be removed from site after completing operation and before removal of piling rig where possible.

Method Statement – Erecting the Rig; Rigging & De-rigging

The position for erecting the rig will be discussed with and confirmed with Mclaren Construction. For this site, the piling area will be the location for rig erection. **The Working Platform Certificate must be signed PRIOR to erecting the rig.**

Piling rig will be directed to position of erecting which should be firm and level and with sufficient working area. At all times the rig must be directed by the Banksman.

Pre-erection checks and erection will be in accordance with the manufacturer's instructions. During erection operations no unauthorised personnel should approach the rig and it is the rig operator's responsibility to cease operations should it become evident that unauthorised persons are encroaching too close.

After initial erection further checks of the operations of the piling rig should be carried out including functions of the brakes and lifting equipment prior to tracking to the working area.

Working At Height

Prior to any works commencement, all persons directly involved within the works project shall be made aware of the work/task to be carried out – initially connecting auger string to rotary head on the piling machine. The head of the auger string will be at approximately 6m above existing ground level.

Work at height will be completed using an appropriate MEWP, driven by a qualified operator wearing a work restraint harness and lanyard

MEWPS shall be inspected in accordance with manual provided. The MEWP operator shall satisfy himself that the machinery is in a serviceable state, and familiarise themselves with the controls prior to operating the machine. No MANUAL OR LOLER cert no use.

Whilst works are underway, there shall be a second man at ground level that is also trained and familiar in the use of MEWP's to affect emergency recovery procedures should there be a problem encountered at any stage of the works.

All necessary PPE associated with the use hammer and erecting rig shall be used as defined within the risk assessment detail within the safety plan.

Assembling The Augers

Auger section to be placed in front of the piling rig using excavator ensuring the female couplings are facing the front of the piling rig.

Banksman to take spare line hook from the rig and place on the ground next to the female auger couplings.

Lifting equipment connected to 1no section of auger minimum of 500mm from top of section and spare line hook is then connected to the lifting equipment.

Once secure Banksman to signal to Rig Operator to start to lift section off the ground to approximately 1.2m. Banksman to check female coupling for any debris. Debris removed if required using suitable tools.

Raise the rotary table to a height sufficient to fit one auger section.

Rig gates to be opened manually/ hydraulically depending on rig type.

Banksman to stand in a safe area to the side of the piling rig and signal to the Rig Operator to lift auger section into place. Once auger section is vertical gates to be closed around the auger section. Spare line to be lowered enough to enable hook to be removed/ auger rotated.

MEWP to be moved into position next to the piling rig at a distance from the rig, sufficient for the machinery to operate within its safe working limits. The operator shall then ascend to the required height to safely carry out the connection of auger string, ensuring the MEWP basket is a minimum of 1metre from the auger to prevent over-reaching from the basket

Banksman/ MEWP operator to signal Rig Operator to lower/ spin auger/ motor as required to enable male and female couplings to be connected and lowered into position.

Once in position MEWP operator moves the MEWP basket next to the auger section and inserts 2no pins using a club hammer to secure the auger section.

Note: there is no requirement for the auger to be touched, should this be necessary then the stem should be held. When inserting the pins ensure they are located in the auger socket, once done ensure hands are out of the way. When re-driving the pins ensure hands are out of the way.

Disconnect the spare line from the lifting equipment and lifting equipment from auger section. MEWP moved away from piling rig and lowered to ground.

To fit the remaining elements of the auger string and the cutting head, repeat the above steps as required.

Assembling The Augers Using Excavators

The area around the front of the rig shall be clear of all personnel prior to lifting augers. Once augers have been lifted into position, the excavator will remain stationary whilst the MEWP moves into position for pins to be added / removed and for chains to be removed from augers

Excavators must not move when the operative is in front of the rig or within the danger zone of the excavator, or whilst cherry pickers are adjacent to the rig.

Augers must never be lifted into the front of the rig if the MEWP is in position.

Auger String Change

The piling sequence may require rigs to change between auger diameters. Where it is not practicable to complete all piles on one diameter before changing to the next, the Piling Foreman may choose to drill a string of augers into the piling platform in pre-determined location agreed with Mclaren Construction for later retrieval. Ensure that this location is captured in both platform certificate and the permit to work. This process reduces the amount of working at height and lifting operations needed to disassemble and reassemble an auger string along with being more efficient.

When carrying out this process, the Rig Attendant shall direct the Rig Operator to drill the string of augers into the platform. Though it is desirable to drill them into a depth which may allow the string to be disconnected from ground level, this may not be practicable if ground conditions are such that they prevent the retrieval of the auger string, or if disturbance of the soil may affect performance of the permanent piles.

The embedment length of the auger string/ the length of auger left above PPL will be assessed on independently on each project given all the variable mentioned above.

Once the augers have been drilled in, the Rig Attendant shall disconnect the string from the head, using a MEWP for access where required.

The Rig Attendant will then direct the Rig Operator to back the rig away from than planted auger string sufficiently so that no part of the rig will come into contact with the disconnected auger string.

Method Statement – Concrete Plant Set Up

Planning of works should aim to have a maximum length of concrete hose / pipeline of 80metres, plus the rig. This can be extended where required by site-specific conditions and must be subject to site specific risk assessment which takes account of mix design, environmental conditions, other works on site affected by our works, protection of the hoses and communications.

The position of the concrete plant shall consider site specific hazards such as overhead and buried services, excavations, drains and watercourses, pedestrian & vehicle movements and other trades, and communication between the concrete plant and the rig. The holding drum will be put in a position so the concrete pump will be placed in front and has good access for the concrete lorries - make sure that there is enough room for vehicles to access and manoeuvre safely, the foreman will notify the Site Manager if there are problems when working near other contractors

The plant should be positioned on the piling mat. If it is placed on existing concrete or tarmac additional controls are required to reduce slip trip risks from concrete slurry.

Make sure that the pumps stabiliser legs are down to stop any movement likely from the tyres. Drums must also be level and be supported by a metal frame or legs in preference to sleepers.

Pipelines must be protected from damage by plant & machinery by placing them away from traffic routes, by burying them or placing protection such as dedicated hose ramps, or sleepers either side.

All hose couplings must be in good order and coated in waterproof grease. Connections must be secured with safety clips.

At the beginning or end of each day (or when required) the holding drum water reservoir will be filled with water and prima pump will be made to line the hoses. Mould oil will be sprayed onto the concrete pump and ho0lding drum to help stop the concrete sticking.

Should the holding drum require to be moved it will be lifted off its lifting points and at no point dragged. The concrete pump will be moved by the excavator and placed in front of the holding drum.

Safety Procedure: AT NO TIME IS TRAFFIC TO BE DRIVEN OVER THE PLACEMENT HOSES WITHOUT PROTECTION. Continual traffic movement over unprotected hoses will cause damage to the concrete hose which will result in a severe accident or incident occurring.

Method Statement – CFA Piling

Before commencing piling operations, it should be ensured that:

1. The client has been made aware of our intention to commence piling.
2. A pile layout drawing relating to that particular base is available for study.
3. Where underground or overhead services are present these will be located, exposed and protected by Mclaren Construction
4. All relevant permits to work are in place.
5. The Piling Platform is installed to the required level and specification, and a Working Platform Certificate has been signed.
6. Any changes to site conditions have been reviewed and the Method statement revised accordingly

Introduction

The pile is constructed using a continuous auger. This is screwed into the ground to the required depth. Once this is achieved, the auger is extracted whilst concrete is pumped under pressure into the bore via its hollow stem. On completion the spoil is removed, the top of concrete located, and the reinforcement cage inserted.

Sequencing

Works are to be sequenced so that

- Rig movements between pile positions is in an agreed economical sequence
- There is sufficient distance between positions generally taken as 3 pile diameters, although this is reviewed dependent on actual conditions encountered, away from adjacent, recently formed piles, so as not to induce concrete flow form, and/ or damage to any of those piles
- Traffic does not cross the concrete hose. A crossover point can be prepared (if required) by either burying the hose or by the use of half sleepers on each side of the hose at the dedicated crossing point, thus minimising damage to concrete delivery hose.

Rig Movements

All rig movements shall be undertaken on the designed & installed platform. Boundaries of piling platform will be identified as suggested therein. Should the extent of the piling area not be clear Green Piling will place some boundary markers to identify piling area with signs restricting access.

The mast must be angled slightly backwards in accordance with the operators' manual when tracking across site

Prior to any individual movements of the piling rig it is the responsibility of the piling foreman and the Rig Attendant to ensure that no-one is in the exclusion zone 5m from rig.

In all cases visual checks of vicinity on all four sides of piling rig will be made. Where there has been a significant pause or prior to movement between piles or areas it will be necessary, when safe to do so, for Rig Attendant to perform a 360° walk about rig prior to moving to ensure area is clear.

The direction and route of movement will be communicated to the Banksman by the piling Foreman and any obstructions avoided if possible and if not measures discussed on how to avoid collisions.

Rig Attendant to wear Hi-Viz clothing and maintain visual contact with driver when signalling.

Daily Commencement

Prior to the commencement of piling works each day, the concrete pipeline will be adequately lubricated with primer mix. The primer will be mixed with water in a tub to a fairly thick consistency. The lubricating mix will be poured directly into the pipeline, and the concrete will follow immediately. The concrete will be pumped slowly through the lines until it flows freely.

Pile Construction

Rig Attendant to be on duty in front of the rig at all times that it is working to ensure that all is in order and other personnel are kept clear

Throughout the piling process, the rig shall be operated within its limits defined within the operator's manual. Over-riding of safety devices is not permitted (for example when using the parallelogram).

The Foreman shall instruct the Rig Operator the required pile sizes, number and depths as per the piling drawings. The Rig Operator shall maintain a record of all piles constructed, noting their number, diameter and depth. This record shall the be transferred by the Foreman to the Piling Record Sheet. This sheet shall be submitted to Mclaren Construction for signature as a record of work carried out. The Foreman/ Rig Operator checks drawing and pile schedule and starts data input into pile monitoring computer.

Rig will be carefully guided onto the required pile position by the Rig Attendant. The Rig Attendant will check the centre of the auger is within the tolerance, in all directions. The setting out pin will then be removed.

Mast is positioned vertically using rig instrumentation. The mast foot shall be then lowered to the ground and any further minor adjustments made as necessary. The auger bung is inserted to prevent ingress of soil and/ or water ant the auger lowered to the ground. The rig instrumentation shall then be reset in accordance with operating instructions to commence boring within the specified construction tolerances. The minimum acceptable criteria (unless otherwise specified) is as follows: At piling platform level - Plan position within 75mm, vertically within 1 in 75

When inserting the bung, carry out final checks to make sure no spoil is above head height on the auger. Before inserting the bung the crew should attempt to clear it by shaking off (sharp rotation of the auger in both directions).

When the rig is correctly set up the auger shall be rotated into the ground until the required depth is reached. The auger gates should be kept closed at all times, only being opened if construction of a deep pile necessitates the need to open the gates to allow the rig to achieve the required depth.

Safety Procedure: When opening or closing the gates the operator will activate the gates and these will open automatically, were a lock is in place the Rig Attendant will open the gates. The Rig Attendant will monitor the concrete hoses and hydraulic hoses as the drill head lowers and raises making sure they do not get snagged and stop all unauthorised personnel entering the area. If the Rig Operator cannot see the Rig Attendant the Rig Operator will STOP drilling until the Rig Attendant is in position.

Pile arisings may build up around the base of the augers which assist in preventing any possible entanglement. If the pile arisings are cleared away by the attendant excavator, then the Rig Attendant is to ensure that they are in a position of safety away from the proximity to the augers.

The rate of auger penetration shall be monitored to ensure that there is no lateral ingress of soil and excessive flighting of material. If this is suspected boring must cease immediately and instructions sought.

Safety Alert: Nobody is allowed in the exclusion zone while the auger is rotating. If anybody enters the are the Rig Operator will stop work until they leave the exclusion zone area.

If obstructions are encountered, piling will be suspended and the procedure for obstructions followed.

If during boring groundwater is struck which is under pressure sufficient to cause the groundwater to raise up the bore and emanate at ground level, boring shall immediately cease and Mclaren Construction shall be informed.

At the target depth, the auger is rotated to allow spoil to raise and the auger is lifted a maximum of 150mm to allow concrete to exit (depending on ground conditions and auger type). The Rig Operator shall signal to the Pump Operator to commence pumping concrete. The auger shall not be raised until either the specified precharged volume of concrete has been pumped through the auger or a positive pressure registers on the instrumentation.

Concrete is pumped under sufficient pressure to form the pile as the auger is extracted. The speed of extraction shall be controlled with reference to the oversupply of concrete as registered on the piling rig instrumentation. Should exceptionally high concrete pressure be generated, causing a risk of blockage or auger jamming, the Rig Operator shall bring this to the attention of the Foreman who in turn shall inform the contract manager/ engineer when reduced oversupply may be used.

Safety Procedure: If during the pumping operations a tip blockage should occur in the system, the pump operator will back pump the concrete pump and try pushing the system again. If the blockage does not clear cease pumping and back pump at least 8 times. The augers will be back rotated out of the bore until the tip can be accessed and the blockage cleared. The pile will be over drilled by approx. 500mm beyond designed depth. If the concreting procedure is stopped for any reason, the rig operator will re-drill back into the concrete a minimum off 200mm then start re-forming the pile.

During withdrawal of the augers the Rig Operator operates the mechanical auger cleaner, and the Banksman shall direct the attendant excavator to clear all spoil arising. Control the rate of extraction to allow the auger cleaner sufficient time to clear as much a s possible.

Safety Procedure: No spoil is to be left on the auger above the ager cleaner. If the Rig Attendant or Pump Operator observe spoil remaining on the auger after going through the auger cleaner, they must stop concreting and inform the Rig Operator. The operator will drill the augers back into the pile loosen the material, if spoil is still present the Excavator Operator will be instructed to break the spoil with his bucket under instruction from the Rig Attendant. At no time should an operative use their hands to remove spoil.

Piling Rig Attendant monitors front of rig during extraction to make sure hoses, auger cleaner etc, do not snag which could result in damage. When the base of the auger is at ground level the rig operator shall signal the Pump Operator to cease pumping.

CFA piles are by necessity concreted up to piling platform level. Due to the possibility of frost damage and /or laitance at the pile head the piling platform should be prepared to a level that allows a minimum of 450mm of the pile to be trimmed off the pile to ensure concrete at the specified cut-off level. Trimming of piles to cut-off level should be left a minimum 7days from casting; this may be reduced subject to cube results. It should be noted that cutting down of the piles is the responsibility of Mclaren Construction.

If a blockage occurs the pump operator stops pumping immediately. Attempt to release blockage by back pumping. All personnel should retreat a safe distance from line and pump restarted to potentially free blockage.

If blockage or disruption to concrete supply occurs during concreting the pile will be re-bored and re-concreted immediately

In the event of discontinuation in the pumping of concrete, pumping may re-commence provided the concrete has not started its initial set. If the concrete has commenced its initial set, the pile shall be re-bored and concreted to its full depth

The piling rig will be reversed off the pile position.

When moving the piling rig, concrete hose may be lifted by the attendant excavator to avoid dragging/ snagging on the ground or other objects. During this activity the excavator must be controlled by a Banksman who will ensure that an adequate exclusion zone is maintained around the excavator and piling rig. If the Banksman has to manually assist with moving the hose, he must instruct the excavator operator to stop while he handles the hose where there is any danger to themselves if the hose moves. Under no circumstances should the Banksman or any other person attempt to move the hose if it is twisted and under pressure or under tension. In this case the excavator should be used to release any twist or tension.

Reinforcement Insertion

Each reinforcement cage will be checked for the following:

- Compliance with design requirements.
- Any loose bars.
- Check there is the minimum number of spacers specified at the size specified, and these are equally spaced around the cage, and still in position when placed in the bore
- The first set of spacers is to be within 300mm below cut off level.
- De-bonding foam is secured.

The attendant excavator will clear the spoil and concrete slurry from the pile position to a stockpile or dumper for disposal.

The head shall be cleared of spoil by the excavator and the pile head located by the Rig Attendant and a small amount of concrete dug out to define the pile position and remove any contaminated concrete or spoil still left in the head of the pile.

Confirm that the fabricated reinforcement cage complies with the specification and design.

The reinforcement cage is then either manually lifted into position, lowered by the excavator (if less than or equal to 11m in length) or the piling rig into the wet concrete at the required level. Care shall be taken to ensure that no contamination is pushed into the concrete by the reinforcement. The reinforcement shall generally be pushed in manually but the assistance of the excavator maybe utilised for the final metre or so provided that no deformation of the reinforcement occurs.

There must be no working beneath raised excavator buckets.

The top of the reinforcement cage will be set to piling platform level. The piling team will check the reinforcement cage on completion to ensure it is central in the pile. All reinforcement cages will be fitted with spacers (minimum 3/4 no every 5m) to ensure correct concrete cover.

On completion of the pile, visibly inspect for possible defects including the level of the concrete and reinforcement. Where practical the reinforcement shall be shaken to assist consolidation of the concrete at cut off level and to ensure the top of the reinforcement is central to the pile bore. If any reinforcement cage does not achieve the required depth or cover it shall be immediately removed from the wet concrete and a replacement reinforcement cage installed with the pile re-bored if necessary.

All exposed bars with have safety caps fitted

If piles are subject to higher tension loads and require central tension reinforcement the following must be followed

Central bars up to 14m in length may be inserted as a single length, anything over this will need to be spliced. Where possible central tension -bars should be pre-built before installation and lifted and lowered with the piling rig to the required level.

If unable to pre-build central tension bar the first section of bar is to be lifted and lowered into place with the piling rig. Coupler must be attached to this bar prior to lifting in.

Bar to be 'trapped' over the centre of the pile and second section of bar to be lifted and coupled to the first section. Bar is then lowered to the required level.

Method Statement – Working Adjacent to Railways

Working adjacent to rail infrastructures is defined as where the piling rig is required to operate within the height of the mast plus 3m from the nearest boundary fence or operational infrastructure.

On this project, the piling rig will be a Soilmec SR75, which has a mast height (worst case) of 32.982m including extension pole.

The area as defined above is termed the Restricted Zone. This area must be marked on site drawing and prominently demarked on the site.

Rigging & Derigging

The rig will be erected outside of the Restricted Zone.

Piling Platform

Prior to commencing piling operations within the restricted zone the piling foreman is to track the piling rig around on the piling platform outside this area to check that the piling platform appears to have been installed correctly by Mclaren Construction and can support the piling rig without any undue settlement or movement. If the piling platform proves to be adequate piling operations can commence.

The Piling Foreman and Banksman are to closely monitor the piling platform at all stages throughout the piling works and request that Lane End repair and maintain the piling platform as required.

Piling mat access roads and ramps will be designed and maintained by Mclaren Construction in accordance with BRE "Working Platforms for Tracked Plant" or similar. Boundaries of piling platform will be identified as suggested therein.

Piling operations are not to commence until Green Piling have received a signed copy of the Working Platform Certificates and Permit to Dig from Mclaren Construction.

Should the piling platform significantly settle or move and hence not adequately support the weight of the piling rig whilst constructing the piles, the Piling Foreman must back rotate the auger and withdraw it from the pile bore, lean back the mast slightly to reduce on the front tracks and reverse away from the affected area. The Piling Foreman is to then ask Mclaren Construction to repair, reinstate and adequately compact the newly installed material with suitable compaction equipment. When this has been completed to the satisfaction of the piling Foreman work can commence.

Lifting Operations

Lightweight cages can only be manhandled into the bore, if the length of the cage is less than the distance to the rail fence, i.e., if they topple, they will not fall onto rail land. Where a heavier cage is lowered into the bore using an excavator or piling rig, the cage must remain shackled until sufficient length (50%) of the cage has been inserted into the bore, such that if it toppled, it would not reach rail land

Rig Orientation

When drilling the piling rig must work in accordance with the latest copy of the Network Rail document reference: NR/L3/INI/CP0063.

The forward movement of the mast is limited to 10° by the limit of ram travel at which point the rig will still be stable.

The mast will not fall backwards due to the spigot & socket type nature of the mechanical connections between the mast and the hydraulic rams.

Please note the above drawing are not to scale and are indicative only to show relevance of the rig orientation to any Network Rail line or boundary

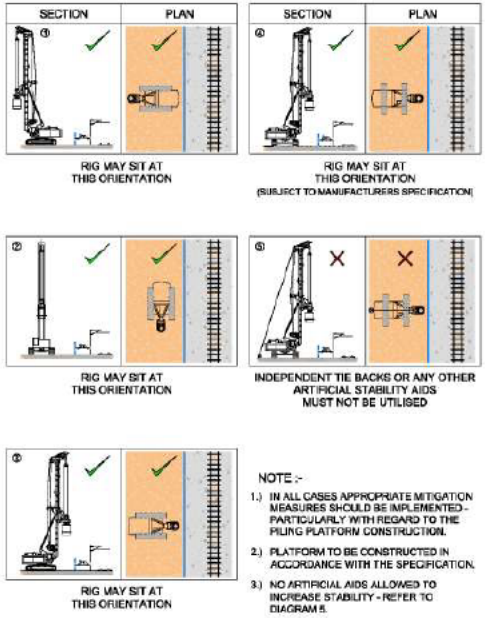
Parking the rig

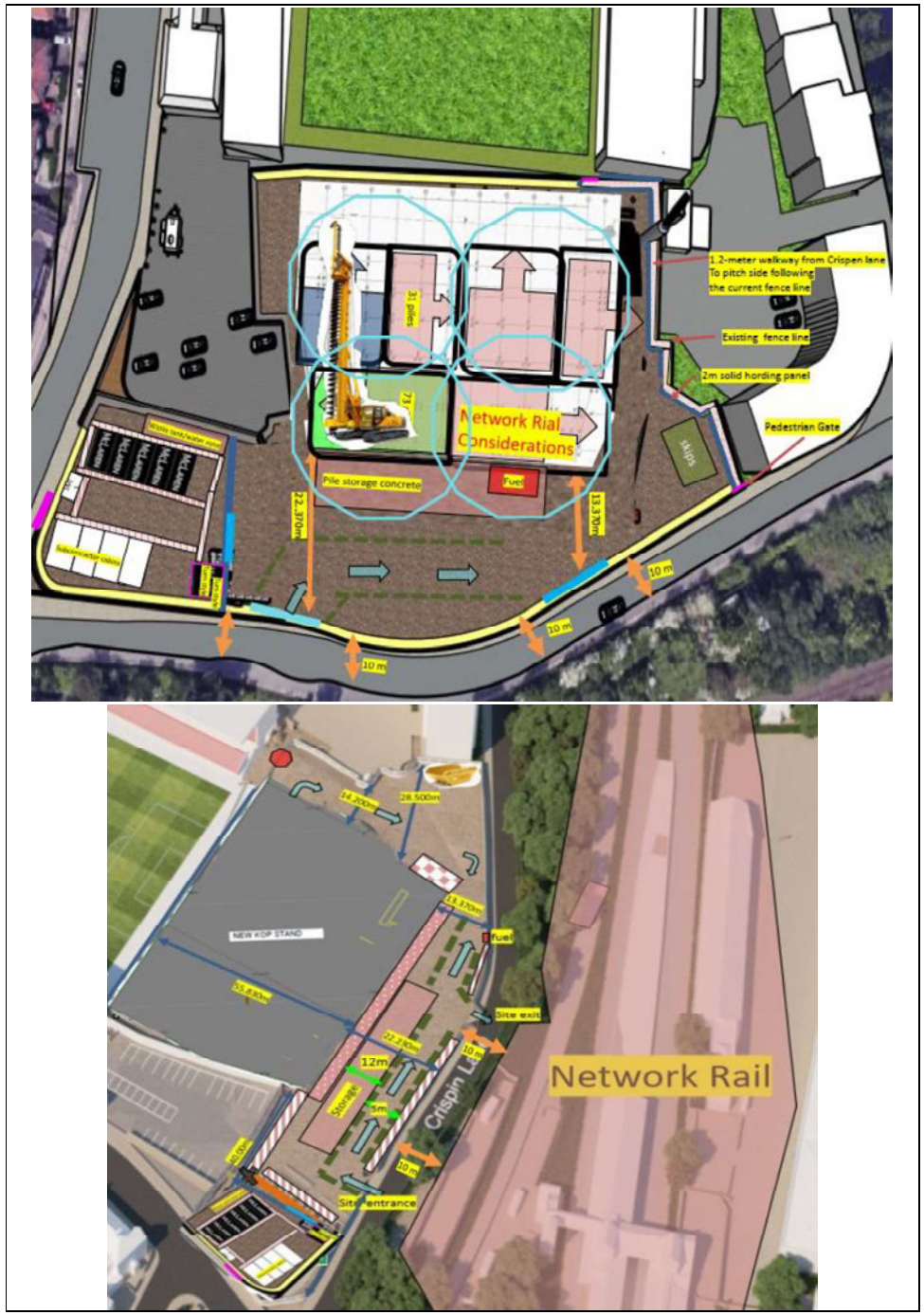
At the end of the shift, the rig should be parked outside any Restricted Zones.

Emergencies

Emergency procedures must be in place between the Mclaren Construction, Green Piling and Network Rail. If an emergency should arise, all piling will cease, the rig moved out of the zone if safe to do so and Mclaren Construction immediately notified. All personnel will need to leave the zone and await instructions as necessary. Emergency services notified as appropriate

ORIENTATION OF PILING RIG ADJACENT TO THE RAILWAY INFRASTRUCTURE DURING NORMAL RAILWAY OPERATIONS.




1.2-meter walkway from Crispen lane
To pitch side following
the current fence line
Existing fence line
2m solid hording panel
Pedestrian Gate
Network Rial
Considerations
Pile storage concrete
Fuel
skips
31 piles
23.270m
13.370m
10 m
10 m
10 m
NEW KOP STAND
14.200m
28.500m
13.370m
Fuel
55.830m
Site exit
22.270m
10 m
12m
Storage
5m
Crispin L
10 m
Site entrance
Network Rail

Method Statement – Steel Fixing Reinforcement

The cages will be made on site by Sub-Contractor steel fixers under the direct supervision of the Green Piling Foreman.

All reinforcement to be supplied by a CARES approved supplier, on the approved suppliers list.

Steel reinforcement will be delivered to site as loose bars, pre-slung in 1t bundles for unloading using the attendant excavator (a safety line will need to be used if moving long steel). Once the single use slings have been removed from the steel they must be destroyed by cutting in half and putting in the general waste skip.

Mclaren Construction shall set aside a suitable area for the assembly of reinforcement cage, together with an adjacent area for storage of reinforcement bars, helical and completed cages.

The Steel Fixer shall be given details of the reinforcement cages required.

The loose reinforcement bars and helical will be assembled into cages using purpose made steel fixing trestles onto which hand selected loose reinforcement bars for the required cages are loaded to give stability as required.

Once bars have been placed upon the trestles, pre-pitched helical shall be spun/ threaded on to the bars as required and tied by hand using steel fixer nips and annealed tying wire.

Once the reinforcement cage has been fixed, de-bonding foam shall be applied as required and secured using cable ties.

As each cage is completed it is removed from the steel fixer stands, removal will be either by controlled rolling, manual handling by two persons or by attendant excavator for heavier cages.

After fabrication, the reinforcement cages are to be stored on timbers or clean hardcore to avoid contamination by soil and stored no more than two cages high.

Attendant excavator to be utilised to move cages from steel storage area to piling rig.

Bundles of cages must be transported around horizontally on twin leg accessories. Do not transport vertically as this can lead to the excavator becoming unstable on uneven ground.

Method Statement – Use of Petrol Cut Off Saws

Obtain a Hot Works Permit if the Client operates a permit system.

Where petrol saws or grinders are used to cut reinforcement etc, they will be used by trained/competent persons. The machine and disc will be inspected before use. Make sure the disc is suitable for the materials being cut, and the guard is in place. Do not use if defective.

The cutting area shall be inspected before cutting commences. Remove all flammable materials such as cardboard, cloth, plastics and aerosols. Keep all persons clear of areas where sparks or dust is directed. Shield work area where possible.

Hearing protection and impact goggles or visor are mandatory

When performing a cut hold the machine firmly with both hands and make sure you have firm, secure footing. Stand to one side of the saw - never in line, in case the machine kicks back. Work calmly and methodically, making sure you don't use undue pressure. Be aware of work-piece shifting or anything which could cause the cut to close or pinch the disc. Release pressure on disc as you reach the end of the cut.

Refuel at least 5 metres from the cutting area.

Maintain a fire watch both during the work and after it has been completed

Make sure there is a fire extinguisher readily to hand

Method Statement – Concrete Pumping/ Clearing Blockages

With wet concrete and mechanical equipment, it is important that equipment cleaning is controlled and supervised correctly – Following aspects of equipment cleaning are considered.

Priming the concrete lines

- Concrete lines will be primed in advance of pumping operations with concrete pump line priming solution to lubricate surfaces to help prevent blockages.

Concrete Delivery Vehicles

- On completion of delivery the chute of the concrete wagon will be washed down by the driver, and together with any excess concrete discharged into the designated concrete washout area.
- The location of the washout area will be within the site area adjacent to the concrete pump and agitator but 15m away from drains and the watercourses. It will consist of a designated Kelly tank lined
  with polythene, or a suitable sediment & pollution control membrane.

Concrete Pump & Agitator

- Washout from pump and agitator will be handled similarly to the above.
- Pay particular attention to the changeover valve and pipework.
- Any overspilled concrete will be cleaned up either manually or with the aid of an excavator and placed into the designated concrete washout area. Solid, settled concrete waste can either be reused on site or disposed of in accordance with waste management.
- All concrete on all parts of the pump and agitator shall be cleaned using a jet wash at the end of each shift. Make sure the hopper and pistons are clean.

Cleaning The Concrete Line (Blowing Out)

- This is carried out using compressed air to push a sponge ball through the line, clearing it of concrete.
- Generally, the ground hoses and rig are blown out separately, although a 100mm diameter flexible hose can normally be blown out from the pump to the auger in a continuous operation for hose lines up to 60m. A 125mm diameter hose should be blown out in two stages due to the weight of concrete in the line.
- Firstly, work from the pump to the back of the rig, secondly from the pump to the auger. The second phase must not be done from the rig pipe work to the auger as concrete may have run back into the rubber hose. When blowing out to a free hose end attached the line to the purpose-designed blow out bow. Always ensure that loose end of the hose is suitably restrained to prevent kinking. Hose lines less than 10m must not be blown out. These must be attached to another section of hose and the above procedure adopted.
- A blow out box should be placed in front of the auger to prevent concrete blowing across site. This should not be pointed towards buildings, public areas or watercourses.
- Disconnect the flexible hose from the pump. Insert the sponge ball (the correct size cleaning ball must be used. It must not be mis-shaped) into the flexible concrete hose to be blown out, fit the blowout adaptor and attach the compressed air line. The blow out adaptor is fitted with a pressure gauge and manually operated relief valve to discharge pressure from the line the valve must be facing horizontally away from any person in the

vicinity. Do not point it towards you or other. Do not point to the ground). Prior to blowing out a final check will be made to ensure the blow-out exclusion zone (5m) is clear of personnel.

- Compressed air will gradually be allowed into the line in a slow controlled manner until the line is blown out i.e. the sponge ball comes out the other end.
- After clearing the concrete from the line, the sponge ball is re-inserted with water before blowing through with air to give a final clearance through the line.
- If a blockage occurs during blowing out, discharge the compressed air pressure and follow the blockage clearance procedure outlined below.

Blockage Clearance Procedure

- Once a blockage has occurred the pump shall be switched to reverse (suck back) and operated for approximately 5 strokes to relive the pressure in the line. Stop the pump.
- Prior to disconnecting/ dismantling of concrete hose extreme care must be taken to ensure that concrete pressure/ air pressure has been released from the concrete lines. This is completed either by the step above or releasing air pressure at the compressor. The concrete hoses must be considered to be pressurised during the clearance process. No couplings should be loosened or removed unless the pressure in the lines has been released and this has been confirmed by the concrete pump operator.
- If a blockage is encountered during the clearance process and a sponge ball is not cleared from the system, it is possible that residual pressure can remain trapped in the system between the cleaning ball and a blockage, even after the air pressure is released at the blow out valve location. Leave the blow out valve in the open position.
- Never attempt to open the concrete hose under pressure. Even when it is believed that all pressure has been released, the hoses must still be treated as though they are pressurised.
- At no time will compressed air and a sponge ball be used where there is a known blockage.
- All operatives involved in these operations must wear appropriate PPE including safety boots, rubber gloves, hard hat and visors.

Blockage Before the Flow Meter

- Blockages before the flow meter are noted either by the rise in pressure noted at the pump on the non-arrival of concrete, as registered on the flow meter.
- The concrete hose should be split at the nearest joint and by lifting the hose with attendant excavator or the secondary line on the rig gravity should clear the blockage. Sometimes this requires the hose to be shaken in a controlled manner.
- If this does not clear the blockage then the end of the hose should be firmly restrained to prevent it from kicking back, i.e. attached to the excavator quick-hitch with a chain and shackle. Measures should be taken to contain any expected discharges from the hose end and the 'Cleaning the Lines procedure' shall be followed. When cleared and before re coupling the line (whilst still restrained) should be pumped through with to check the blockage has been fully cleared.
- In the event the blockage cannot be cleared the blocked hose is to be taken out of service and replaced.

Blockage After the Flow Meter but Before the Augers

- Blockages after the rig flow meter are noted by an increase in pressure before the blockage occurred.
- The augers should be drilled into the ground to bring any joints down to ground level. Once pressure in the line has been released the lifting/ shaking procedure above can be followed.

Blockage In the Augers

- The augers will need to be removed from the bore by 'back-screwing'. This must be done in a slow controlled manner ensuring the majority of spoil stays within the pile bore, so as not to undermine the piling platform or adversely affect rig stability.
- A check shall be made to see if the bung has blown out of the tip of the auger. If not then this should be carefully removed using a screwdriver or pigtail spike to probe within the auger tip, listening carefully for any movement of concrete as it may exit quickly (although not under pressure) once released. Hammering the auger stem can also assist the process.
- Once the blockage is cleared the banksman will reposition the rig over the pile position.

In the event that the blockage cannot be cleared the augers shall drilled into the ground and split from ground level. Care should be taken as these will still be full of concrete at this time which may flow out when the augers are split. Clearing of the auger can be undertaken with small amount vibratory or mechanical assistance. A short scaffold pole, inserted into the stem, could also be used. If the blockage cannot be cleared safely then the auger shall be taken out of service and replaced. A short amount of pumping should be carried out to check the line.

Safety Alert: If working in hot weather the concrete system will be moved every 15 mins, by pumping concrete through the rig system and holding drum system.

Method Statement – Adverse Weather Conditions

Extra procedures are required if bad weather is forecast to ensure safety of all operatives and the stability of the rig and MEWP.

If the wind speed increases to above 20mph, the Piling Forman, Rig Operator and Rig Attendant will need to be vigilant on orientating the rig into a safer working position and watching concrete and hydraulic hoses on the rig to ensure they don't become snagged in the rotating auger. If the wind speed keeps increasing the recommendations for a piling rig need to be followed as stated in the operator's manual. If strong winds are forecast over night or over the weekend the auger will be drilled into a pile position (approx. 6m) and left in parking configuration. MEWP operators need to check the operator's manual before using the MEWP to check the maximum wind speed.

If bad weather conditions (lightening) are forecast a 3m exclusion zone will be erected around the whole rig with access refused to all site personnel. The rig operator must stay inside the cab and not leave until the storm has passed.

Method Statement – Refuelling

Green Piling will place bowser in designated re-fuelling area – but be within reasonable distance of rig and plant working location. As a minimum requirement – spill kits, plant nappies etc. are required to be present on site.

Normal operations involve fuel delivered initially with piling equipment in double skinned locked static bowsers. Re-fuelling of bowser will be from vehicle delivery as required.

The rig should be established at the bowser position and drip tray placed such that spillages are contained.

A fuel spill kit shall be kept with piling rig and bowser at all times and operatives should be familiar with its stored position and its use.

When re-fuelling operatives to wear appropriate PPE including gloves and eye protection.

All spillages shall be reported to Mclaren Construction.

Method Statement – Securing Site Plant & Equipment

The piling rig will be banked into a designated area to park and level the rig, lower the auger on the ground and then lowered the foot on to the piling mat. The Rig Operator will turn off the rig and remove the keys and tablet, then lock all the doors on the rig making sure everything is safe then turn off the mobiliser lever.

The Pump Operator when finished will be assisted by the Rig Attendant and place all the loose metal work on the concrete pump, they will then place all the remote controls, tools, chains and equipment in the container and close and lock the door.

The compressor will be chained and padlocked to the rear of the holding drum (or other secure locations), additionally the towing eye can be removed.

All security fencing must be in place by Mclaren Construction before leaving site.

Method Statement – Leaving Site

The work area shall be left in a clean and tidy manner.

The Foreman will make sure that the rig is configured for transport in accordance with the manufacturer's instructions, making sure all securing bolts and pins are correctly fitted and the rig is safe to transport.

All excessive spoil must be cleaned off the rig, augers and associated plant.

The Foreman shall make sure the Foreman's Completion Form is signed off by Mclaren Construction before leaving site.

Method Statement – Quality Procedures

Green Piling have achieved ISO 9001, which demonstrates the necessary skills required to quality manage our activities, products and services. It is also a measure of reliability, consistency and commitment to supply quality to our existing and potential customers.

A pile design (and working platform design if required) will be sent to Mclaren Construction prior to the piling rig arriving to site.

A member of the contract team will have visited site and complete a site visit and produce the RAMS for the contract.

The Piling Foreman will be given a contract information file, with all the required for the piling works. All piles/ works carried out will be recorded on the CFA Daily Pile Record Sheet. After each shift, the records are sent to the office for booking in.

The information is collated with the information on the NDT system and check with GP QA records, these checks make sure drilled information is correct (depth, reinforcement and wastage) on all piles.

If Green Piling are contracted to provide a setting out engineer, the engineer will set out all pile positions required daily, check the piling mat level and instruct the operator if details have changed and once constructed will complete an as-built survey.

Cubes are tested by a UKAS accredited company. There cubes are tested at 7, 28 and a spare (56) days to confirm the strength of concrete. Results are released after testing.

Integrity testing takes place if required at a minimum of 7dyas after the piles were installed. Mclaren Construction needs to call off (by email) giving a minimum 3days notice and inform when pile will be ready ensuring no reinforcement beams are in place; a specialized company arrives on site and test the integrity of the pile. Results are released after testing.

Any problems with the quality of our works will be logged as a non-conformance report and this will be discussed in our weekly meetings.

The contracts team will monitor the production and quality daily.

LIFT PLANS

GREEN PILING APPOINTED PERSON:	Scott Farrar, CPCS 40592350

PLANNING

The following lifting operations will take place:

- Loading & Unloading of plant & equipment and materials from vehicles using lorry mounted crane and excavator
- Use of excavator for pick & carry duties, lifting of equipment & materials around site during piling works and assisting in rigging/derigging of piling rig
- Installation of reinforcement into pile positions using the excavator and piling rig auxiliary line
- Use of piling rig auxiliary line for rigging & de-rigging.

Prior to commencing on site a member of contracts will have visited site and carried out a risk assessment and discussed with a member of Site Management lifting procedures and required piling platforms, storage areas and access. Proximity hazards such as power lines, structures, excavations or other lifting operations will be considered and are recorded here.

Considerations

Where possible, equipment and materials shall be loaded pre-slung from supplier with long enough equipment such that standing on lorry is not needed.

In general, most lifts will be generic, with exception of any special or complex lift situations which require additional assessment and consideration.

Important that position of operatives within the work area is considered before loads are lifted and transported. Nobody should need to enter the slew radius of the machine while the machine is lifting / slewing; stand outside slew radius / route of load being lifted

Important to consider any situations where the machine or the load can become unstable. Transport the load as low to the ground as possible and at walking pace to maintain stability. Pay particular attention on uneven ground and slopes.

Tandem lifts are not permitted under this Lifting Plan. If a tandem lift is required, it must be the subject of a separate Lifting Plan, authorised by an Appointed Person.

Communications between the lifting team will be via recognised hand signals & verbal

Prevailing weather conditions which could affect the lift (snow/ice/high winds etc) to be monitored. Lifts to be halted if the conditions deteriorate and become unsafe. Refer to machine duty charts for wind speed limits.

Supervision

The Piling Foreman is deemed to have sufficient knowledge & experience in loading & unloading of piling equipment and lifting operations using an excavator. Under CPA/ALLMI guidance, the lorry loader operator can act as operator and supervisor

EQUIPMENT

All lifting equipment and accessories will be subject to Thorough Examination in accordance with LOLER requirements (12-monthly for equipment; 6-monthly for accessories). Current lifting equipment register/ certification for all lifting equipment to be used will be available on site for inspection.

Excavator supplied by Mclaren Construction who is responsible for checking all documentation before releasing it to work to Green Piling.

Excavator to be suitable for pick & carry duties and have a current Thorough Examination certificate; minimum 1T lift capacity and be fitted with a suitable lifting eye on the quick hitch or dipper arm to enable a shackle to be attached. Buckets must be capable of being removed for lifts.

Supplier of lorry mounted crane is responsible for checking all equipment and documentation before releasing it to work to Green Piling.

Duty Charts for Excavator

Make, Model, Attachments, Test Certificates, etc supplied by Mclaren Construction

Duty Charts for HIAB

Make, Model, Attachments, Test Certificates, etc supplied by haulier who has been advised of the loads to be lifted, their characteristics and weights.

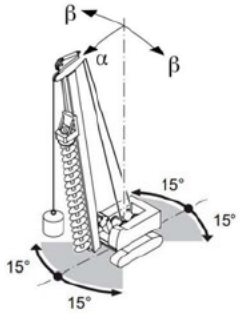
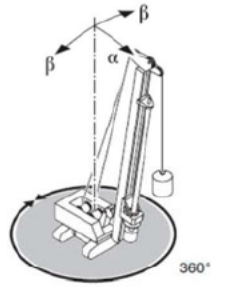
PILING RIG DETAILS

Lifting operations with the piling rig service line must only be undertaken with the rig as described below.

- Located on level ground
- Mast verticality within limits below
- Tracks to be fully extended
- Auger clear of spoil
- Vertical service line

* The Front Weights where stated include the weight of: the auger string, auger extension assembly (including auger extension unit with concrete hoses, swivel head, elbow and guide pole, cleaner and any soil in the auger

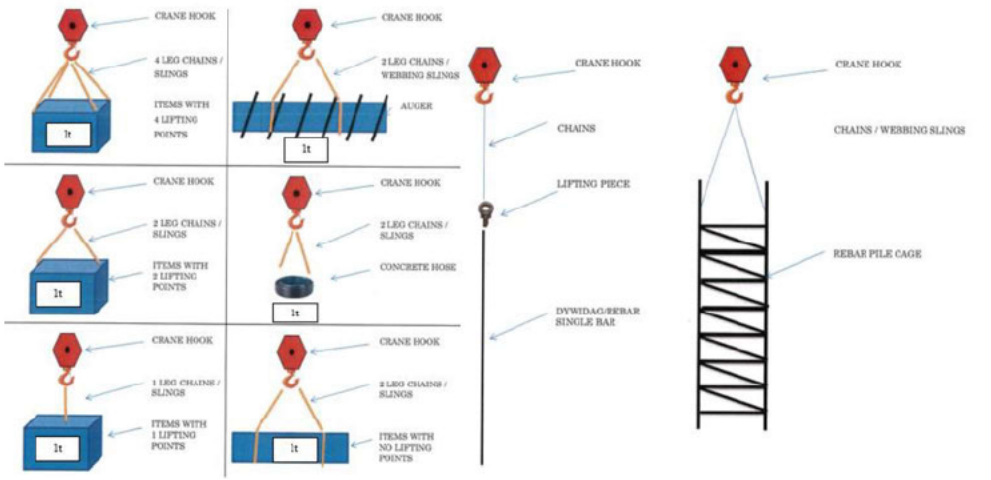
Lifting outside of these parameters may render the rig unstable.

Soilmec SR75 Rig Configuration	Working Radius	Front Weight (Kg)	Lift Capacity (Kg)	
			Mast Angles α = 4°, β = 0°	Mast Angles α = 0°, β = 3°
	Minimum	9550 (Short auger extension)	4600	8400
		8400	4600	8400
		6900	5300	9100
		5400	5900	9800
	Up to Maximum	9550 (Short auger extension)	2300	5400
		8400	2300	5400
		6900	3000	6200
		5400	3700	7000
	Minimum			
		9550 (Short auger extension)	300	3200
		8400	300	3200
		6900	100	3900
		5400	1700	4700
	Up to Maximum	9550 (Short auger extension)	Not allowed	700
		8400	Not allowed	700
		6900	Not allowed	1500
		5400	Not allowed	2300

SCHEDULE OF ROUTINE LIFTS

Description of Load		Gross Weight	Load Characteristics	Method of Lifting / Slinging Arrangements	Lifting Gear Required
Augers	Up to 450mm Ø x 6m	1400kg	Uniform centre of gravity	No lift points; choke between flight	H lift: 2 leg chains V lift: Single chain
	Up to 600mm Ø x 6m	1450kg			
	Up to 750mm Ø x 6m	1500kg			
Reinforcement cage (single)		Max 1000kg	Long, flimsy	1. Lift horizontally when transporting around site with 2 leg chain hooked in line or chocked. 2. Lift vertically with single leg chain secured around rebar/ helical joint 3. Bundling wires not to be used 4. Heavy cages require a welded lifting band.	2 leg chain/ single chain/ nylon sling
Reinforcement cage (bundle)		Max 1000kg	Long, flimsy		
Reinforcement loose		Max 1000kg	Long, flimsy		
Concrete agitator *(lorry mounted crane only)*		8000-10000kg	Uniform centre of gravity	4 lift points on chassis	4 leg chain
Concrete pump		3000kg	Uniform centre of gravity	Single point on top	Chain/ wire sling
Diesel bowser		1200kg	Uniform centre of gravity	Lift points on top	2 leg chain
Compressor		<500kg	Uniform centre of gravity	Lift points on top	Single leg chain
Toolbox container		4000kg	Uniform centre of gravity	Lift points on top	4 leg chain
Concrete hose		10kg/m (Max 20m)	Uniform centre of gravity	No lift point; choke	2 leg chains/ nylon sling

Typical slinging arrangements



EMERGENCY ARRANGEMENTS	
Site emergency arrangements In the event of an emergency, contact the emergency services and use the post codes and What3Words to direct them to the site access point. From here, direct to the specific work site.	
Fire & First aid	In addition to the provisions provided by Mclaren Construction, Green Piling shall provide at least one person within the team that hold the minimum competency of Emergency First aid depending on the amount of persons on site. A First Aid Kit will be held within the site vehicle or site cabin. The Foreman shall ensure sufficient provisions for the works being undertaken. Any stock requirements will be ordered immediately Dry powder extinguishers shall be located with the rig
Service Strikes	Electric - Switch machine off & evacuate all personnel on the ground. The rig operator must remain in the rig. Do not attempt to disengage the cable from the auger. Do not touch exposed cables. Gas - Switch all machinery off & evacuate all personnel to safe distance. Extinguish all naked flames. No smoking. Gas emergency number is 0800 111 999
Spills	Spill kits will be provided and our crews instructed in their use. When a spill happens: PRIORITY - Assess the risk, Make sure you know what the liquid is and the hazards associated with maintain the safety of all personnel. Do not put yourself or others at risk. Eliminate sources of ignition Contain the Spill - Prevent the spill from growing, Stop the source of the spill - Tip up drums etc, shut off valves, Cover drains at risk; Surround the spill with absorbent booms Absorb the Spill - Once the spill has been contained, the boom can be pushed along the floor, working from the outside of the spill to the inside. Use pillows or flat sheets to absorb the bulk of the liquid. Dispose of the spill - Place all used components and any contaminated soil into a plastic bag and seal the bag. DO NOT place in the general waste skip. They must be returned to your depot for disposal as Hazardous Waste. Make sure you replenish your spill kit
Contaminated Land	If you come across an unidentified substance that may be hazardous: Leave the area immediately. Do not attempt to remove any equipment as this could spread the contaminant. Inform site management of what you saw, smelt, felt and where it occurred. If you have been in contact with an unidentified hazardous substance Remove any clothing/equipment that may be contaminated, shower or wash thoroughly. If you begin to feel unwell, for example through eye, nose, throat irritation, dizziness, nausea chest tightness, go to the first aider, or if severe, directly to a local hospital & explain what happened Inhalation - Remove casualty from exposure ensuring your own safety whilst doing so. Keep casualty warm & at rest. Seek medical attention
Plant & Equipment Failure	In the event of a failure, stop all operations and if possible bring the machine to a safe condition. Isolate the machine (eg key out) and if possible, set up an exclusion zone
MEWP RESCUE PLAN	
In the event of the upper control functions failing while elevated or the operator being unable to operate the MEWP functions due to incapacitation or auxiliary controls fail to operate from the basket. Lone working is never carried out therefore a person will always be at ground level who will change over the controls at ground level from normal operation to auxiliary control. This will allow the person on the ground to bring the basket back down safely. The crew will complete a toolbox talk on these controls prior to use	

RISK ASSESSMENTS

Likelihood	Severity
1 Harm Extremely Unlikely to Occur	1 Slight injury
2 Harm Unlikely to Occur	2 Injury requiring medical attention
3 Harm Seldom Occurs	3 Serious injury / ill health
4 Harm Occasionally Occurs	4 major injury / ill health
5 Harm Certain to Or Frequently Occurs	5 Fatality

Severity \ Likelihood	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25

Risk Rating	
Low	No additional controls are required. Monitoring is required to ensure that the controls are maintained.
Medium	Efforts should be made to reduce the risk, but the costs of prevention should be carefully measured. Where a medium risk is associated with extremely harmful consequences, further assessment may be necessary to establish more precisely the probability of harm to determine the need for improved control measures
High	Do not start work until the risk has been reduced to as low as reasonably practicable using BATNEEC. Considerable resources may have to be allocated to reduce the risk. Where the risk involves work in progress, urgent action should be taken.

SITE RISKS

Work Activity & Hazard	Person At Risk	Initial Risk	Precautions/ Controls To Reduce Risk	Residual Risk	Who Provides The Precautions Controls
Overhead Services Machines coming into contact with services whilst passing under, working close by or working underneath services leading to possible electrocution.	GP Personnel Other Contractors Public	High	HSE guidance GS6 - "Avoidance of Danger From Overhead Electric Power Lines to be followed Before any work is carried out around overhead power lines the cable owner shall be consulted on the work to be carried out and establish whether the cables can be moved or isolated, and the extent of any clearance zone around the cables. This must be documented. All relevant information regarding the presence of overhead services must be provided to Green Piling prior to mobilisation Request clearance, physical barriers and signs from Mclaren Construction Ensure precautions, barriers etc. are maintained.	Low	Principal Contractor
			Visually check service location Remove augers and lower the mast when travelling where necessary. Do not proceed unless precautions are in place.		Piling Foreman
Underground Services Machines coming into contact with services including electricity, gas, water, sewers and chemical pipelines	GP Personnel Other Contractors Public	High	All relevant information regarding the presence of underground services must be provided to Green Piling prior to mobilisation. Ensure that services have been traced & located and clearly marked before work begins. Advise all operatives involved in piling operations of service locations Underground services will always be assumed to be live	Low	Principal Contractor
			Permit to pile to be completed with all relevant utility drawings from Mclaren Construction Piling rig & excavators must not be operated within 500mm of a service. Monitor drilling conditions and cause re-tracing of services, if necessary.		Piling Foreman
Inadequate Piling Platform Rig becoming unstable.	GP Personnel Other Contractors	High	Qualify working platform requirements and responsibilities prior to work commencing	Low	Contract Manager
			Suitable access route and piling platform to be constructed capable of supporting the intended load. Platform certificate to be completed to confirm that platform is adequate before works commences. Correct reinstatement of platform disturbances to the original specification Platform to be re-inspected and signed off when ever the platform has been disturbed, or at maximum 7-day intervals. Maintenance of working platform in accordance with the contractual requirements throughout the contract.		Principal Contractor
			Keep plant and equipment clear of all excavations and boreholes. Plant and equipment to be kept in safe areas.		Piling Foreman
Sloping Ground Rig becoming unstable, overturning.	GP Personnel Other Contractors	High	Assess gradient against machine manufacturing data.	Low	Contract Manager
			Ensure the gradient is suitable for traveling and is constructed correctly. Travel with mast raked back and remove augers subject to operators' manual Only raise piling rig mast on level ground.		Piling Foreman
Working adjacent to Other Trades Risk of injury to / from other contractors operations	GP Personnel Other Contractors	High	Site Inductions & coordination of works to maintain exclusion zones	Low	Principal Contractor
			Management of piling operations and exclusion zones. Avoid entering the work areas of others Raise concerns with site management		Piling Foreman
Poor housekeeping resulting in slips, trips & falls	GP Personnel Other Contractors	Medium	Good housekeeping practices must be encouraged by operatives at all times. Rubbish, lifting equipment, reinforcement off cuts, etc must not be allowed to build up. Materials to be staked and stored properly. All walkways to be kept clear and tidy, with particular attention to designated pedestrian routes.	Low	Piling Foreman
Piling adjacent to Structures and Site Boundary Damage or collapse of building or part of the building onto persons. Damage to services Persons being struck by bore spoil material or concrete	Public	High	Structural assessment to be made with regard to the stability of the structure. Necessary information to be provided and any shoring system to be in place and checked before work commences. Investigate services and risk of vibration damage and protect or move. Provide exclusion zones/ protection measures necessary. Provide, erect and maintain polythene sheeting/ debris netting to perimeter walls/ fencing to prevent spoil/ concrete / slurry splashing members of the public/ adjacent structures.	Low	Principal Contractor

Persons & vehicles unintentionally coming into contact.					
Security Unauthorised use of plant. 3rd party damage. Theft of plant, equipment and materials.	GP Personnel Other Contractors Public	Medium	Site wide security arrangements	Low	Principal Contractor
			Reduce risk of theft of plant and equipment by: • Remove on wheel or fitting wheel clamps, changing plant equipment to a fixed object, removing batteries. • Fitting control arm covers. • Locking away small tools in secure location. Remove keys from plant and equipment when not in use and left unattended. Materials will be safely stacked and stored. Diesel bowsers to be locked.		Piling Foreman
Lighting Persons being struck by vehicles. Persons & vehicles unintentionally coming into contact. Trips, slips and falls	GP Personnel	Medium	Site hazard assessment to confirm that lighting is adequate or to ensure artificial light is available when necessary Provision of background safety lighting in periods of darkness in areas used by Green Piling, including walkways and access routes.	Low	Principal Contractor
			Plant to be fitted with task lighting.		GP Plant Manager
Contaminated Ground Operatives health affected by exposure to substances.	GP Personnel Other Contractors Public	Medium	Protection will depend on type & quantity of contaminant. Typical control measures to include provisions for decontamination; additional PPE and RPE, (RPE will be fit tested to the individual) No Drinking, eating or smoking will be allowed within the contaminated / segregated area. Wash hands thoroughly before eating, drinking or smoking	Low	Principal Contractor
Adjacent Railway Working Contact with trains with personal injury and damage. Rig overturning due to platform failure or during erection Falling loads during lifting operations	GP Personnel Other Contractors, public	High	Approval for the method of working to be obtained from the railway authority. Designed checks / approval for piling platform in accordance with NR requirements	Low	Principal Contractor
			Planning of work in accordance with Network Rail document ref: NR/L3/INI/CP0063. Downrating of lifting operations, equipment & accessories to 75%		Contract Manager
			Rig erection & rigging at a distance beyond collapse radius of rig Orientation of rig in accordance with NR standard Secondary (back-up) sling to be used on all lifts . Pile cages to remain shackled until sufficient length (50%) has been inserted into the bore. Position rig overnight beyond collapse radius		Piling Foreman
Windblown Dust	GP Personnel Other Contractors,	Medium	Ensure that adequate dust controls are in place. Consider spraying/ damping down the site surface to reduce dust.	Low	Principal Contractor
			In dusty conditions suitable eye protection and dust masks must be available and worn.		Piling Foreman

SITE MOBILISATION

Work Activity & Hazard	Person At Risk	Initial Risk	Precautions/ Controls To Reduce Risk	Residual Risk	Who Provides The Precautions Controls
Vehicular & Pedestrian Access Interface between pedestrians & vehicles, danger of bodily injury	GP Personnel Other Contractors	Medium	Plan the main vehicle, plant/ pedestrian access routes. Aim for barriered segregation and avoid reversing, where possible. Banksman to direct vehicles when necessary, particularly reversing vehicles. Ensure high visibility garments and task specific PPE is worn.	Low	Principal Contractor
Vehicle Movements Other road/ site traffic.	GP Personnel Other Contractors Public	High	Access routes to be agreed with Mclaren Construction before work commences.	Low	Contract Manager
			Site speed restrictions will be adhered to. Manoeuvre all delivery vehicles using a trained banksman. Keep all delivery vehicles on designated haul roads and loading areas.		Piling Foreman
Delivery & Unloading Piling Rig Collision with surrounding structures. Collision with other plant & equipment. Damage to road surfaces/ pavements.	GP Personnel Other Contractors Public	Medium	Protection of roadways and footpaths when rig is being loaded/ unloaded on the highway.	Low	Principal Contractor
			Ensure site is suitable for rig delivery and that the ground is firm and level. Identify access hazards – weight, width and height restrictions noted. Rig Operator and Banksman must be trained/ competent		Contract Manager
			Check security of load and agree sequence of unloading. Follow site rules – speed limits etc. No one will be allowed to stand at the side of the vehicle being loaded/ unloaded including the Banksman. Use of remote controls where fitted Load/unload on level and stable ground.		Piling Foreman
Delivery & Unloading of Equipment & Materials from wagons Collision with surrounding structure. Failure of lift equipment. Fall from height from delivery trailer.	GP Personnel Other Contractors	High	Ensure that a lift plan is in place. Piling equipment & reinforcement to be delivered in vehicles with side rails and pre-slung with slings easily accessible from ground level.	Low	Contract Manager
			Check security of load and agree sequence of unloading. Release lorry load restraints carefully. Where possible, items to be slung/ un-slung from ground level. Where vehicles flatbed is to be accessed, use appropriate access point. After slinging load, operative to dismount the vehicle's bed or stand at the headboard. Edge protection must be used. All lifts to be completed under direction of a trained and competent slinger/ signaller. Suitable mechanical means to be used to off load. Ensure that the laydown area is suitable for the delivery wagons		Piling Foreman

			No one will be allowed to stand at the side of the vehicle being loaded/ unloaded including the Banksman.		
Lorry Mounted Crane Operations Crane becoming unstable. Collision with surrounding structure. Failure of lifting equipment. Damage or injury to passing vehicles & pedestrians.	GP Personnel Other Contractors	High	Provision of firm, level ground capable of withstanding load bearing from crane outriggers	Low	Principal Contractor
			All crane movements & lifts to be completed under direction of a suitably trained Piling Operative		Contract Manager
			The crane, lifting accessories and safety devices checked by the user daily. All lifting equipment is subject to a thorough examinations/ testing in accordance with LOLER 1998. Fully extend outriggers will be used at all times & locked in position. Outriggers must not be positioned where ground could collapse. Outrigger mats must be used at all times. Operator to stand in a position of safety. No loads should be left suspended. Avoid unloading in high winds, heavy rain, snow or icy conditions		Crane Operator
			Lifting points shall be checked for signs of damage prior to being lifted. Only propriety lifting points to be used; only recognised slinging techniques will be used; Tag lines to be used when necessary. Under no circumstances will the crane or lifting accessories be overloaded. No one will be allowed to stand at the side of the vehicle being loaded/ unloaded including the Banksman. As the load is lifted and slewed, do not stand in the line with direction of travel as this is a crush zone		Piling Foreman

ERECTING PILING RIG / RIGGING & DERIGGING

Work Activity & Hazard	Person At Risk	Initial Risk	Precautions/ Controls To Reduce Risk	Residual Risk	Who Provides The Precautions Controls
Erection of Rig Failure or overturning of the rig during erection. Fall from Height. Failure of lifting equipment. Trapping, crushing or significant injury as a result of accidental operation of drill head or mast controls or uncontrolled movement of auger	GP Personnel Other Contractors	High	Platform certificate to be completed to confirm that platform is adequate before works commences. Ensure site/ piling area is suitable for rig delivery and that the ground is firm and level. All non-piling personnel should be kept away from the rig during this operation. Exclusion zone to be in place.	Low	Principal Contractor
			Deployment of suitable trained competent personnel Ensure current certification is available for all lifting equipment and accessories.		Contract Manager
			Rig erection to be carried out in line with the machine operations manual Rig controls will only be activated following clear audible instruction from Banksman. Safety devices will not be by-passed, nor be relied upon by the operator. The auger must be held in the gates and remain attached to the auxiliary line whilst the operative in the MEWP is raised into position, where they will knock in the pins. All operatives in the MEWP basket shall wear a safety harness secured to a stable point in the basket. Never overreach from the basket, the MEWP must be positioned as close as possible to the item being worked on. Operative in the MEWP basket who is making the connection shall not hold the flights until the flight being lowered is touching the remainder of the string. All equipment and accessories must be stored in the basket in a way to prevent them falling.		Piling Foreman
Use of MEWPS Overturning due to overreaching beyond machine limits. Collapse or overturning of machine due to soft, muddy or uneven ground conditions, trenches, obstacles, overloading, etc Overturning due to travelling with basket raised Collision with overhead cables, pedestrians, surrounding structures, other mobile plant & equipment Falls from height & falling objects Adverse weather Misuse by unauthorised personnel. Mechanical failure / emergencies	GP Personnel Other Contractors	High	Selection of suitable machine for task with regards to S.W.L, required working height & outreach	Low	Contract Manager
			Check that a maintenance certificate has been provided by the supplier. Banksman to direct all movements where visibility is restricted. Instructions required at ground level on how to lower the platform from ground position. Lone working is not permitted. Conduct pre-use checks & complete the daily inspection sheet. Check working area for obvious hazards before starting work. (soft ground, blind corners, narrow gaps, limited head-room, steep gradients and excavations.) Work restraint harness must be worn; Exit & enter basket only when fully lowered. Set MEWP up on firm and level ground. Do not overload platform with equipment or people Positioning of platform immediately alongside to allow operative to reach object without reaching/leaning over handrails. Do not use additional equipment/objects ie ladders, boxes etc to gain extra height/reach if task is beyond reach of platform. MEWPS only to be used as work platforms and not as a means of access to elevated levels or as lifting equipment Do not operate beyond maximum safe wind speed from manufacturer's documents. Inspect before use after severe weather Do not move the equipment with the platform in the raised position unless the equipment is designed to allow this to be done safely (check the manufacturer's instructions). Leave platform in a secure manner and clear of tools and equipment when not in use.		Piling Foreman

CFA PILING RIG OPERATIONS

Work Activity & Hazard	Person At Risk	Initial Risk	Precautions/ Controls To Reduce Risk	Residual Risk	Who Provides The Precautions Controls

Rig Movement About Site Collision with surrounding structures, plant & equipment. Contact with person	GP Personnel Other Contractors, public	High	Platform certificate to be completed to confirm that platform is adequate before works commences.	Low	Principal Contractor
			Route of rig movements to be visually assessed before commencing and discussed with Mclaren Construction as required. Movement of piling rig to be controlled by trained & competent Banksman. All rigs must be fitted with rear view mirrors and reversing cameras. Communication between Rig Operator and Banksman to be agreed hand signals.		Piling Foreman
Mechanical Failure of Plant Operatives being injured by defective plant or when carrying out unauthorised repairs		High	Daily visual inspections to take place this must include the condition and operation of guards. Recorded defects must be made known to the Plant Department. In the event of plant breakdown or failure make the area safe. Inform the Foreman/ Plant Manager. Do not carry out unauthorised repairs.	Low	Piling Foreman
Operation of Piling Rig Misuse or inappropriate behaviour causing accidents		Medium	Rig operator to be competent to drive piling rig.	Low	Contract Manager
			Rig Operator to be in good health, not to be under influence of drugs or alcohol, or to be distracted by outside influences e.g. phones, radios, conversations		Rig Operator
Placing Auger Bung Entrapment or entanglement in the moving or rotating auger. Persons being struck by bore spoil material.		High	Rig Operator will ensure the rig is idle, brakes are applied and no movement of auger. The Rig Operator will not perform any function until instructed by the Banksman.	Low	Rig Operator
			Ensure no material is still on the auger at height. Attempt to clear any spoil passing the cleaner by stop-start rotation in both directions (attempt to shake off)		Piling Foreman
Boring of Piles Entrapment or entanglement in the moving or rotating auger. Persons being struck by bore spoil material.		High	DO not over-ride safety devices when extending parallelogram	Low	Rig Operator
			Piling rig gates to remain closed when possible. Should the rig gates need to be opened to allow the piling rig to achieve its full depth; this is acceptable if the auger rotation stops when anyone has to enter the 'danger zone'; the Banksman must police the area in front of the rig. Auger not to be cleaned manually. Banksman to be present and maintain exclusion zone 2m around auger when working. No access unless augers stopped.		Piling Foreman
Auger Blockage Contact with concrete/ cement. Burst hose across site. Persons being struck by bore spoil.		High	Pre-charge the concrete line to 15bar, if the auger cap has not pushed out stop pumping and back pump. Back screw the augers out of the bore until the tip can be accessed. Remove all loose material to prevent falling debris before accessing auger tip to remove the blockage. Re-drill pile 500mm beyond its schedule design depth. Care taken at all time during pre-charging of the augers.	Low	Piling Foreman
Spoil Falling from Auger Persons being struck by bore spoil material.		High	During Extraction the auger must be cleared by a mechanical cleaner fitted to the piling rig. Auger not to be cleared manually. Where access is possible, use excavator (working within its reach) to clear spoil from a stationary auger. Green Piling operative to ensure the gates/ auger cleaner remain clear from excessive build-up of spoil.	Low	Piling Foreman
Freshly Concreted Bores Contact with concrete/ cement. Injury from exposed steel.		Medium	Marker paint to be used to identify the position. All exposed steel rebar will be clearly marked. No reinforcement to project above piling platform level.	Low	Piling Foreman
Rig overturning due to underground collapse / funnelling of non-cohesive or granular materials		High	Use S.I information & previous experience of working in particular areas to establish whether there is an increased risk of underground collapse	Low	Contract Manager
			Prevent rigs tracking over, or drilling down close to fresh piles. Do not leave boreholes open. Avoid repeatedly drilling down and removing the auger from an open bore Any interruption to the drilling process (eg blockage, obstruction etc) ensure auger is removed by back-screwing slowly to leave as much spoil within the bore as possible and minimise disturbance of surrounding ground. Do not lift augers directly out of the ground. Checks on platform thickness to make sure it hasn't been reduced		Piling Foreman
Use of Piling Rig to Insert Reinforcing Cage Striking of operative during lift from horizontal to vertical. Cage falling		High	Lift Plan to confirm that rig has sufficient capacity to lift cages on site	Low	Contract Manager
			Rig must be on level ground with mast verticality within limits stated on duty chart Auger shall be clear of spoil Area of lift to be kept clear. If it is required to hold the tail end of the reinforcement during lifting, mechanical means should be used. If this is not possible the area should be cleared off obstructions, the distance to lift is to be as short as possible and a constant line of sight is to be kept between operator and operative holding the tail end.		Piling Foreman

CONCRETE PUMPING

Work Activity & Hazard	Person At Risk	Initial Risk	Precautions/ Controls To Reduce Risk	Residual Risk	Who Provides The Precautions Controls
Concrete Pumping Contact with concrete/ cement. Moving parts of drum & pump. Excessive noise exposure for the operator.	GP Personnel Other Contractors, public	High	Waterproof gloves, a long-sleeved top and trousers must be worn at all times whilst working with any cement-based product. Ensure suitable water tight and chemical resistant wellington boots are worn at all times. Eye protection must be worn when working with cement-based products. If cement, concrete or grout gets into the eyes, it must be dealt with immediately by flushing with clean water.	Low	Piling Foreman

Trapping by concrete lorries.			Begin each day wearing clean clothing and finish each day with a shower. Daily inspection to be completed by operator and recorded of daily inspection log. The moving part of the pump must be adequately guarded to prevent contact with moving parts. Hopper grill to be secured when operating. Engine must be stopped before lifting grill. Ear protection must be worn at all times whilst operating pump. Couplings to be fitted to all joints with joints secured by R clips. Hoses and couplings, including whip checks, to be inspected daily. All concrete hoses connected to the mast and not stored at ground level must be fitted with whip checks. Rig 'drop hoses' to be fitted with sleeved hoses for additional protection. Use pipe protectors or bury concrete hoses where ever possible to prevent damage caused by vehicles constantly running over the hoses. Ensure daily that a clean/ tidy work area/ platform is maintained. Banksman to control all reversing vehicles associated with works		
Moving Concrete Hose Persons being struck by vehicles. Sprain or strain injuries. Contact with concrete/ cement		Medium	Use mechanical aids wherever possible to lift hoses. Share the load by team lifting when necessary. Adopt the correct posture when lifting. Use the correct hand tools when placing clips and pins. Operatives wear suitable gloves when handling equipment	Low	Piling Foreman
Bursting Concrete Hose Contact with concrete/ cement. Persons being struck by moving hose/ concrete. Damage to property.		High	Hoses to be inspected by Pump Operative daily at start of shift. Couplings to be fitted to all joints with joints secured by R clips. Hoses and couplings, including whip checks, to be inspected daily. All concrete hoses connected to the mast and not stored at ground level must be fitted with whip checks. Shrouding of mast hoses. Mast hoses to be replaced on 12-monthly basis Ensure that hoses don't get kinked, and use pipe protectors or dig out concrete hoses where ever possible to prevent damage caused by vehicles constantly running over the hoses. Individual hoses to have ID stamp to determine age Rig steels & swan neck to be examined during servicing for wear/thinning of walls	Low	Piling Foreman
Clearing Concrete Lines and Auger Contact with concrete/ cement. Persons being struck by moving hose/ concrete.		High	All blowing out operations are to be under direct control of a trained Foreman. One operative to remain at piling rig during procedure, Pump Operative to control compressor. Rig lines to be blown out away from the perimeter fencing at all times and blow out chamber used were practical. Operatives to monitor concrete lines as the concrete moves through the lines, when the ball passes the back of the piling rig air flow should be turned off and surplus air released through the exit valve. All persons not involved in this operation to be kept at a safe distance. Whip-checks to be used at all air hose joints including at both compressor and the blow out gun. Operator to check adaptors are clear of debris before fitting hose.	Low	Piling Foreman
Blockages Contact with concrete/ cement. Persons being struck by moving /whipping hose/ concrete.		High	Minimise potential for blockages by • Use of smaller size aggregates for first load of each day. • The length of hose between the pump and rig to be as short as possible. Remove any unnecessary hoses. Where the sponge ball will exit other than down the auger, a ball catcher or blowout chamber may be fitted to the free end of the hose run. Prevent the hose from 'whipping' by fixing a strop to the hose and secure it to the excavator. Holding the hose down with an excavator bucket is not effective and should not be used as the only means of restraint, although it can be used in addition to the strop. Before releasing a joint, pressure should be released where possible by back-pumping. You must not attempt to clear a blockage with compressed air.	Low	Piling Foreman
Use of Air Compressor Contact with high pressure air. Hose whip Movement of compressor on site	GP Personnel Other Contractors	High	Ensure the compressor is used in accordance with the manufacturer's instructions. Ensure the compressor has been regularly maintained. Compressor to be placed on firm, level ground. Hand brake is to be engaged and if necessary, wheel chocked. Operator to ensure valves are closed and hoses are connected before start up. Whip checks to be fitted to all connections in the airline. Air compressor to be switched off and stored air released before joints are disconnected. Air must only be turned off at valve. Ensure non-essential personnel are kept away from work area where ever possible.	Low	Piling Foreman Operator
Pressure Washer Direct water jet injuries Risk of being hit by ejected material Slips & trips from wet surfaces Risk of injury from kickback during startup	GP Personnel Other Contractors	High	Ensure the equipment is in good working order. Do not use faulty pressure washer. Use only hose and accessories rated for pressure higher than pressure washers p.s.i. If the engine does not start after two pulls, squeeze trigger of gun to relieve pump pressure. Waterproof gloves, eye protection and safety wellington/ boots to be worn at all times. Do not stand in front of the cleaning jet. Spray will always be directed away from self and others.	Low	Piling Foreman Operator

			During operation, only touch the control surfaces. Grip gun/ wand to be held firmly with two hands. Operator must not hold onto the hose or fittings. When not in use, relieve pressure Good housekeeping is required at all times. Keep hose tidy and away from walkways		

ATTENDANT EXCAVATOR OPERATIONS

Work Activity & Hazard	Person At Risk	Initial Risk	Precautions/ Controls To Reduce Risk	Residual Risk	Who Provides The Precautions Controls
Removal of Spoil from Pile Position by Excavator Collision with operatives, plant or structures.	GP Personnel	High	When setting up on site, ensure consideration is given to storage of materials minimising the risk of crossing pedestrian routes.	Low	Principal Contractor
			A trained and competent Banksman must co-ordinate all excavator movements. No-one should be located within 1m of the excavator		Piling Foreman
			Excavator Operator must ensure 360° vision is available at all times.		Excavator Operator
Lifting operations with Excavator Mechanical failure, Injury or damage from machine / load movements Falling loads due to poor slinging, load characteristics or damaged loads Crushing between the machine, load & surrounding structures, Overloading of equipment, - lifting loads above the S.W.L	GP Personnel Other Contractors	High	All driver operators must be trained and competent. Daily pre-use checks by the driver Excavator to have current Thorough examinations/ testing in accordance with LOLER 1998. Excavator to be suitable for pick & carry duties with minimum 1T lift capacity. Fitted with a suitable lifting eye on the quick hitch or dipper arm to enable a shackle to be attached. Buckets must be capable of being removed for lifts. Accessories should be capable of hanging freely at all times	Low	Principal Contractor
			Lifting equipment must be attached to the dedicated lifting eye of the excavator. Do not wrap accessories around the bucket or dipper arm, or within the quick hitch Buckets must be removed for lifting All machine movements & lifts will be completed under the direction of a Rig Attendant or Slinger/signaller Make sure no one (pedestrians/ground workers etc) enters the danger zone while the machine is lifting / slewing; stand outside slew radius / route of load being lifted Controlled movements of the load to prevent pendulum effects; Loads will not be dragged or snatched. Where necessary, taglines to be used to stabilise loads being lifted Transport the load as low to the ground as possible and at walking pace to maintain stability. Particular attention on uneven ground and sloped Under no circumstances will the item of plant or any lifting accessory be overloaded. The operator will ensure he is aware of the safe working load before the lift commences. Safety devices must be fully functioning & not be disengaged. Do not stand between the body & tracks of the machine		Piling Foreman
Use of Piling Rig/ Excavator to Insert Reinforcing Cage Striking of operative during lift from horizontal to vertical. Cage falling from excavator. Underside of excavator bucket striking personnel when pushing cage in	GP Personnel Other Contractors	High	Area of lift to be kept clear. If it is required to hold the tail end of the reinforcement during lifting, mechanical means should be used. If this is not possible the area should be cleared off obstructions, the distance to lift is to be as short as possible and a constant line of sight is to be kept between operator and operative holding the tail end. The lifting operation must be controlled by the Banksman. Do not work beneath a raised bucket.	Low	Piling Foreman

STEEL FIXING

Work Activity & Hazard	Person At Risk	Initial Risk	Precautions/ Controls To Reduce Risk	Residual Risk	Who Provides The Precautions Controls
Steel Fixing Unsecured cages. Cuts from projecting wire. Slips, trips.	Steelfixer, GP employees, other contractors	Medium	Manual handling is to be kept to a minimum by the use of the attendant excavator. Heavy loads are to be split into loads that the operative is comfortable with lifting. Work area and access routes shall be cleared of obstructions and trip hazards. Collect excess tying wire. Stack reinforcement in approved laydown area. Reinforcement to be stored as such to avoid having to step over items. Eye protection steel toe capped boots to boots to be worn at all times. Gloves should offer adequate protection but maintain dexterity. Trestle tables to be suitably strong and placed on firm level ground. Tails on ties to be bent inward. Long tails must be cut. Ensure cages have enough ties, braces etc to allow safe slinging.	Low	Steelfixer
Abrasive Cutting Tools Fragmentation of the disc. Eye, face, hands and arm injuries. Contact with rotating wheel or disk Clothing/hair entanglement with moving parts, Fire risk from sparks Noise, Eye injuries & puncture wounds from wheel bursts, Hit by flying particles/ debris,	Operator, Others in close proximity	High	Ensure the equipment is in good working order, if electrical ensure current PAT tests are in date. Trained and competent person only to change cutting disc. Goggles to BS EN 166 B must be worn. Suitable gloves and ear protection to be worn. Equipment must not be used near combustible materials. If any fuel spillage on clothing, equipment must not be used. Equipment and disks/wheels will be inspected prior to use for damage. Ensure the face of the wheel is dressed evenly. Users will not use undue pressure. The operator will make sure that guards are fitted. Guards will not be removed except for maintenance purposes only. Ensure that all persons are kept away from areas where sparks or dust is directed. Remove all flammable substances from the immediate area.	Low	Operator

Exposure to Hand Arm Vibration (HAVs)			Minimise exposure to vibration by reducing the amount of time you use the tool in one go, by doing other jobs.. Keep hands warm & dry & avoiding gripping or forcing tools. Disc cutters will only be used when standing on a firm, level base. Make sure the material you are cutting will not move during the operation. Body positioning to prevent being struck by kick-back		

REFUELLING OF PLANT & MACHINERY					
Work Activity & Hazard	**Person At Risk**	**Initial Risk**	**Precautions/ Controls To Reduce Risk**	**Residual Risk**	**Who Provides The Precautions Controls**
Re-Fuelling **Bodily contact with fuel oil.** **Pollution of controlled waters.**	GP Personnel Other Contractors Environment	**Medium**	**Always store diesel bowser way from any wate course and surface water drainage systems.** **Ensure diesel bowsers are locked when not in use.** **Only store fuel in appropriate fuel cans.** **Ensure plant adequate drip trays and spill kits are located close by.** **Ensure plant nappies are used when ever filling up items of plant.** **All engines must be switched off when refuelling.** **Any spillage is to be reported immediately to the Foreman. A spill kit is to be used as and when required.** **Appropriate fire extinguishers must be located close by to any item of plant being refuelled.** **Always ensure the correct PPE is being worn as identified within the COSHH assessment.**	**Low**	**All**

ENVIRONMENTAL RISKS				
Work Activity & Hazard	**Initial Risk**	**Precautions/ Controls To Reduce Risk**	**Residual Risk**	**Who Provides The Precautions Controls**
Mobilisation & Deliveries Delays caused by blocking roads. Potential for noise and disruption to local community particularly during early deliveries to avoid peak traffic. Contamination of highways and surface drains if vehicles or plant being transported are not cleaned prior to leaving site.	Medium	Neighbour notifications and planning around busy times. Wheel wash provisions es and	Low	Principal Contractor
		Considerate driving and parking – large vehicles parked up clear of site and only brought in when vehicle can be accommodated on site. Use low emission fuels, ADBLUE		Contract Manager
		Cleaning down plant prior to transport if required.		Piling Foreman
Piling Operations Generation of large volumes of spoil. Likely for some of the spoil to be contaminated. Particularly on brownfield/ reclaimed land which may need to be treated as hazardous waste.	High	Correct disposal route; some spoil can be re-used provided any contaminant is separated. Ensure type of ground to be encountered on site has been ascertained. If contaminated set up safe regime to deal with.	Low	Principal Contractor
		Choice of work method to minimise spoil generation.		Contract Manager
Concrete Pumping May cause pollution of drains and watercourses, particularly when w\shing down wagons and pumps. Concrete blockages occur and concrete is ejected across site. Washing Out Ready-Mixed Concrete and Clearing Out Pump and Concrete Delivery Hoses at End of Shift. Use of water within concrete plant – wetting down mix & cleaning down drum and pump.	High	Install a protective bund to prevent wate/ slurry from entering watercourse	Low	Principal Contractor
		Reduction at design stage; accurate ordering; mix design and site set up to minimise blockages		Contract Manager
		Careful placing of concrete to avoid unnecessary spills. Positioning equipment away from watercourses; provision of wash out skips or other bunding away from watercourses and surface water drains. Maintenance of plant and equipment; protection of hoses from damage and containment of hose burst. Good water connections and hoses in good condition, switch off water supply when not being used. Sending excess concrete back to batching plant. Placing in designated area to allow the concrete to cure without polluting the ground or watercourses		Piling Foreman
Mobile Plant Operations Exhaust emissions; black smoke if plant is poorly maintained. Large volume of fuel during operation. Noise and vibration nuisance when working in urban areas.	Medium	Assess likely impact on local environment. If necessary, warn neighbours of extent of works.	Low	Principal Contractor
		Plant to be kept in good working order; service of plant. Reducing noise levels from all plant where possible; switching off plant when not in use; avoid long idle times; all plant to be fitted with efficient silencers if practical.		Contract Manager
		Restricted hours of operation to be observed.		Piling Foreman
Storage and Use of Fuels and Oils Pollution of water courses, drains and sewers through accidental spills, hose bursts and poor storage.	High	All lubricants to be stored within storage cabin when not in use, overnight and at weekends. Bunded Diesel bowser to be lockable. To be locked outside site hours and when not in use. (at least 10m away from watercourses) Spills to be cleared up promptly. Spill kits are available on site.	Low	Piling Foreman
Poor Storage and Handling Waste Waste being mixed or sent to incorrect landfill. Leaching into ground and entering drains and watercourses. Damage to plants/ animals, unsightly windblown rubbish.	Medium	Segregation of waste and recycling. Site waste management plans, use of licensed disposal routes. Provision of suitable waste containers.	Low	Principal Contractor
		Maintaining good housekeeping standards		Piling Foreman
Handling of Materials, Over Ordering and Stock Control Excess waste to landfill. Materials becoming damaged and unusable.	Medium	Order correct amounts of materials; avoid accepting incorrect deliveries; avoid double handling.	Low	Contract Manager Piling Foreman
		Re-use/ recycle materials, segregation of waste.		Piling Foreman

COSHH ASSESSMENT

Tasks Covered: **Installation of piles using concrete. Operatives** will be exposed daily, and for long periods to cementitious materials. Various tasks related to the onsite inspection and basic maintenance of equipment. Includes refuelling, topping up fluids etc. Operatives will be exposed infrequently and for short periods.

Hazard	Who is harmed & how?	Initial Risk	Specific Control Measures	Emergency Procedures	Residual Risk
Batched concrete & admixtures Contains various chemicals including lime, calcium silicates and alkalis plus Soluble chromium (VI)	When dry, Respirable Crystalline Silica is a risk via inhalation. Inhalation can lead to developing acute rhinitis and localised irritation. Risk of chronic respiratory problems. Contact with skin and eyes can lead to irritation & burning due to the corrosive properties. Prolonged & repeated exposure may also lead to Irritant and allergic dermatitis developing Ingestion – the swallowing of small amounts of concrete products and admixture is unlikely to cause any significant reaction. Larger doses may result in irritation to the gastrointestinal tract, nausea, diarrhoea & vomiting	High	Standard Working Practices Keep exposed skin to a minimum to avoid contact – wear impervious gloves and protective clothing, including overalls with long sleeves and long trousers. Do not allow concrete to become trapped between the skin & clothing All concrete spills must be cleaned up	Standard First Aid measures. Prevent entry into drains and watercourses. Allow to dry before disposing of as hardcore	Low
Mould Release Oil	Not classed as a health hazard however contact with eyes may cause irritation & smarting. May cause discomfort if swallowed. Not considered to be an environmental hazard however contamination of watercourses or the land should be avoided	Medium	Standard Working Practices Keep exposed skin to a minimum to avoid contact – wear impervious gloves Store in well ventilated areas in suitable canisters away from naked lights and heat sources. Use funnels when decanting liquids Storage of containers on drip trays	**Toxic fumes will evolve if involved in a fire** Only attempt to fight fires if safe to do so. Evacuate if smoke is affecting your breathing. you cannot see the way out, or the fire continues to grow Turn leaking containers leak-side up to prevent further escape. Contain spillages using spill granules, sand or other inert absorbent. Protect drains.	Low
Pump Primer	Slight irritant properties towards the eyes, & may lead to redness & stinging. Swallowing of large amounts may result in localised burning	Medium	Standard Working Practices Keep exposed skin to a minimum to avoid contact – wear impervious gloves Use powder mixes in well ventilated areas	Standard First Aid measures	Low
Linemarker Spray Paints	Can cause asphyxiation, irritating to the respiratory system, skin and eyes when used in areas with poor ventilation. Repeated & prolonged exposure to the propellant can result in the de-fatting of the skin.	Medium	Standard Working Practices **Pressurised containers -** Do not use or store near sources of ignition. Wear gloves to prevent paint coming into contact with skin. Ensure good ventilation. Do not inhale aerosol mist	**Burning produces irritating, toxic and obnoxious fumes** Only attempt to fight fires if safe to do so. Evacuate if smoke is affecting your breathing. you cannot see the way out, or the fire continues to grow	Low
Engine Oil	Fitters can suffer skin irritation from contact with engine oil. (long-term repeated) exposure to used oil may lead to the production of skin tumours. Hot oil may produce irritant fumes	Medium	• Standard Working Practices • Do not perform oil change on excessively hot oil • Do not breathe in oil mist from hot oil • No contaminated materials (oily rags) in pockets • Storage on drip trays / bunded areas	Turn leaking containers leak-side up to prevent further escape. Contain spillages using spill granules, sand or other inert absorbent. Protect drains. Once dry, sweep up and transfer to suitable, labelled containers for disposal.	Low
Hydraulic Oil	Not classified as hazardous however can become highly toxic if oil becomes injected into the body In common with most mineral oils, prolonged and repeated skin contact may cause dermatitis.	Medium	• Standard Working Practices • Prevention of injection injuries in accordance with hydraulic safety work instruction • Avoid generating & breathing in mists • No contaminated materials (oily rags) in pockets • Storage on drip trays / bunded areas	**Seek immediate medical assistance if hydraulic oil is injected into the body** Turn leaking containers leak-side up to prevent further escape. Contain spillages using spill granules, sand or other inert absorbent. Protect drains. Once dry, sweep up and transfer to suitable, labelled containers for disposal.	Low
Grease	Continuous & prolonged exposure to grease may cause skin irritation	Medium	• Standard Working Practices	Standard First Aid measures.	Low
Petrol	Operator may be harmed if vapours are inhaled. May cause irritation to the respiratory system. Prolonged exposure to vapours may cause drowsiness and narcosis. May cause skin irritation and inflammation; prolonged or repeated contact may result in dermatitis. May also cause cancer.	Medium	• Standard Working Practices • Use in well ventilated areas • Keep chemicals away from heat sources, open flames & other sources of ignition.	**Ingestion of petrol can lead to unconsciousness.** If this occurs, place injured person in recovery position and protect airway. Seek immediate medical attention Turn leaking containers leak-side up to prevent further escape. Use foam extinguisher to smother spills to prevent ignition	Low
Diesel and exhaust fumes	Irritation of your eyes & respiratory tract; headaches and convulsions. Repeated contact with your skin can cause de-fatting & in some cases, dermatitis. Irritation of the mucous membranes, throat and stomach, nausea and vomiting. Liver and kidney damage is possible Continuous exposure to exhaust fumes can cause long term, or chronic, respiratory ill health including cancer. Carbon Monoxide poisoning	High	Turn off engines when not required; All re-fuelling to be carried out in well-ventilated areas away from sources of ignition. Store in well ventilated areas away from naked lights & heat sources. Store in bunded bowsers or jerry cans. Do not allow to enter water supplies or soil.	**Standard first aid measures** Turn leaking containers leak-side up to prevent further escape. Contain spillages using spill granules, sand or other inert absorbent. Protect drains. Once dry, sweep up and transfer to suitable, labelled containers for disposal **CO Poisoning – don't put yourself at risk – make sure the area is ventilated before you enter. get the casualty to fresh air before taking to casualty**	Low

GENERAL INFORMATION	
Standard Working Practices	Good housekeeping to be maintained in all work areas and welfare facilities; Use the welfare provided to dry clothes and change clothes regularly Change out of heavily soiled / contaminated clothing and wash hands & face before eating or drinking Regularly wash the skin with warm water and soap, and dry the skin afterwards. Refrain from touching face with soiled hands. Do not eat or smoke in areas where there is likely to be exposure; Cuts or wounds must be covered Apply work creams to exposed skin regularly Wear long-sleeved protective clothing; Wearing impervious vinyl or nitrile gloves when handling chemicals or contaminated equipment Eye protection must be worn at all times Always store in original containers that are correctly labelled. **FOLLOW MANUFACTURERS INSTRUCTIONS**
Instruction Information Training & Supervision	All operatives briefed on routes of entry, skin checks and health risks of working with hazardous substances Foremen completed 2-day SSSTS course which covers COSHH All staff briefed on correct fitting of respiratory protection as part of fit test programme Regular toolbox talks delivered on occupational health issues delivered by foreman fitter Copies of Safety Data Sheets kept on file. Instruction given that if a new product is being used, the COSHH assessment will need to be reviewed Regular manager visits carried put to ensure controls are being implemented Instruction given that if the product is being used in a manner different from the way specified, a separate risk assessment will be needed
Exposure limits	Cement has a Workplace Exposure Limits (WEL's) of **10mg/m3** total inhalable dust and 4mg/m3 respirable dust (8 hour TWA) Exposure limits are not exceeded during normal operating conditions & due to the quantities involved at any one time it is unlikely that the limits be exceeded in the event of an accidental release.
Health Surveillance	Health screening with occupational nurse covers dermatitis checks & spirometry. Induction training includes instruction to carry out self-checking
Thorough Exam & Test	Not required.
Emergency Provisions	Emergency First aid trained personnel present; Eye wash & first aid facilities shall be kept in an easily accessible place. Fire extinguishers (dry powder) maintained and readily accessible Spill granules and absorbent pads readily accessible. Use correct waste stream
Standard First Aid	**In all cases should exposure be excessive or symptoms develop seek medical attention.**
	Ingestion - wash mouth / nose out with water, and give patient plenty of water to drink. DO NOT induce vomiting. Seek medical attention
	Skin – Remove contaminated clothing as soon as possible and wash with soap and water. If irritation, pain or other skin conditions occur, seek medical advice
	Eyes – Do not rub eyes, remove any contact lenses. Hold the eyes open and wash with emergency eye wash solution (if available) or clean water for up to 15 minutes. Seek medical attention
	Inhalation - Remove casualty from exposure ensuring your own safety whilst doing so. If possible, remove any excess substances from the nasal passages. Keep casualty warm & at rest. Seek medical attention

MANUAL HANDLING – GENERAL MANUAL HANDLING ACTIVITIES DURING PILING WORKS					
Task involves the offloading and moving equipment and materials around site. Includes concrete hoses, sections of auger, reinforcement cages, bags of auger bungs, tools etc.					Duration of task – 4 to 8 hours
Load Considerations				Notes	**Control Measures**
Uneven distribution of weight	✓	Bulky / unwieldy	✓	Lacerations and crush injuries to hands, fingers, legs and feet whilst handling loads. Long cages can flex whilst being carried which can result in imbalance. Likely to encounter bulky loads without handholds, with uneven centre of gravity or loads difficult to grasp.	Process can be mechanised by use of excavator to lift concrete hoses, auger sections and reinforcing cages. Operatives to consider the task at hand and plan ahead regard to reducing carrying distances through positioning/ storage of materials adjacent to work area. Handling of light – medium weight loads will be subject to on-site assessment by Foreman and Operatives. Completion of manual handling training – use good lifting techniques and awareness of own limitations. Plan the lift to ensure the route is clear of all hazards. Ensure ground is scraped and kept firm and level. Make sure load can be handled effectively – check stability and centre of gravity before lifting, moving. Wear protective gloves at all times. Take into consideration the weather conditions (ice etc). Ensure task lighting is available and operational. Check for shadow areas for trip hazards. Health screening including musculoskeletal assessment.
Unstable / contents likely to shift	✓	Difficult to grasp?	✓		
Intrinsically harmful (sharp/hot)?	✓				
Task Considerations				Notes	
Holding load away from trunk		Strenuous pushing / pulling		Storage on site is generally ground level, or low head height of if the body twists. Significant stooping and twisting when carrying loads. Moderate/ high forces are exerted to move loads. Head/ neck is bent or twisted part of the time; back is bent or twisted part of the time; wrists are bent or deviated part of the time.	
Twisting	✓	Repetitive handling			
Stooping	✓	Carrying distances (10m+)	✓		
Reaching above head height		Lifting from floor level	✓		
Frequent/ prolonged physical effort		Large vertical movements			
Work organisation / pace		Force exerted	✓		
Poor coordination, communication and control?		Insufficient rest			
Individual Factors				Notes	
Unusual strength / height required		Risks to the pregnant?		PPE does not affect abilities.	
Risk to those with health problems/ disability	✓	Requires special information or training			
Movement affected by PPE					
Environmental Considerations				Notes	
Slippery ground?	✓	Strong air movements		Increased risk of slips/ trips during wet weather if ground conditions deteriorate. This will be affected by quality of principal contractor.	
Variations in levels? (steps/slopes)	✓	Poor lighting?	✓		
Extreme heat / cold?		Postural constraints			
Uneven ground?	✓	Dust and fumes			

SAFETY DATA SHEET
Auto Diesel / DERV

According to Regulation (EC) No. 1907/2006 as amended

Issued: 06/08/2019
Ref: WFS/ Watson Fuels/ Auto Diesel/ 01
Version: 01

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFIER

Chemical Identification: **Auto Diesel / DERV**
Other names: **G.O.R.V.; Ultra-Low Sulphur Diesel, AD10**

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Relevant Identified Uses: Fuel for use in automotive vehicles

Uses advised against: This product is not to be used as a solvent or cleaning agent, for lighting or brightening fires, or as a skin cleanser.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Supplier: Watson Fuels
Address: Lindum House
Causeway End
Brinkworth
Chippenham
Wiltshire
SN15 5DN
UK
Tel: +44 1666 510 345
Email: hse@watsonfuels.co.uk

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Telephone (24hr): **+44 (0) 333 333 9957 (24/7)**

SECTION 2. HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

ACCORDING TO REGULATION (EC) No. 1272/2008 (CLP)

Classification: Flam. Liq. 3; H226
Asp. Tox. 1; H304
Skin Irrit. 2; H315
Acute Tox. 4 (inhalation); H332
Carc. 2; H351
STOT RE 2; H373
Aquatic Chronic 2; H411

Please see section 16 for full hazard statements

2.2 LABEL ELEMENTS

ACCORDING TO REGULATION (EC) No. 1272/2008 (CLP)

Hazard pictogram(s):



Signal Word: Danger

Hazard statement(s):

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H332: Harmful if inhaled.
H351: Suspected of causing cancer
H373: May cause damage to organs (Thymus, liver and bone marrow)
H411: Toxic to aquatic life with long lasting effects.

Precautionary statement(s):

P102: Keep out of reach of children.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P331: Do NOT induce vomiting.
P405: Store locked up.
P501: Dispose of contents/container in accordance with local / national regulations.

Supplementary Hazard Information (EU): None

Hazard Determining Component(s): Fuels, diesel

2.3 OTHER HAZARDS:

The product does not meet the criteria for PBT or vPvB substances.
Electrostatic charge may be generated during pumping and other operations.
Vapours may form explosive mixtures with air.
Spillages make surfaces slippery.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 MIXTURES

Mixture manufactured from Fuels, diesel. May contain FAME (fatty acid methyl esthers) at < 7% and other additives at <0.1% each. None of the additives impact any additional hazard to the finished product. Total Sulfur: < 0.1 wt%.

Chemical Name	CAS Number, EINECS Number	REACH Registration Number	Concentration	Classification
Fuels, diesel	68334-30-5, 269-822-7,	01-2119484664-27-xxxx	93 - 100	Flam. Liq. 3; H226 Asp. Tox. 1; H304 Skin Irrit. 2; H315 Acute Tox. 4 (inhalation): H332 Carc. 2: H351 STOT RE 2: H373 Aquatic Chronic 2: H411

Please see section 16 for full hazard statements.

SECTION 4. FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

General Advice: Obtain medical attention if symptoms do not resolve. Show this safety data sheet to the doctor in attendance.

Inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If casualty is unconscious and not breathing, or if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If the casualty is unconscious and breathing, place in the recovery position with the head below level of the torso. Immediately obtain specialist medical assessment and treatment for the casualty.

Ingestion: Obtain medical attention immediately. Do not wait for symptoms to develop. Do not induce vomiting. Do not give anything by mouth because of risk of material entering the lungs and causing lung damage. If person is drowsy or unconscious and vomiting, place on left side with head down. If possible, do not leave unattended and observe closely for adequacy of breathing.

Eye contact: Remove contact lenses if present and easy to do. Wash eyes immediately with plenty of water, making sure to rinse under eyelids. If symptoms persist, obtain medical attention.

Skin contact: Drench contaminated clothing with water before removing to avoid risk of sparks from static electricity. Take off contaminated clothing and wash it before reuse. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
For minor thermal burns, cool the burn. Hold the burned area under cold running water for at least five minutes, or until the pain subsides. Body hypothermia must be

avoided.
Accidental high-pressure injection through the skin requires immediate medical attention. Do not wait for symptoms to develop.

Protection of first aiders: No action shall be taken involving any personal risk or without suitable training. Ensure adequate ventilation. Spillages make surface slippery.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Aspiration into the lungs may occur directly or following ingestion. This may cause chemical pneumonitis which may be fatal. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. Ingestion may also cause gastrointestinal irritation, nausea, diarrhoea and vomiting.
Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in drowsiness, dizziness, light headedness, headache, disorientation, fatigue, nausea and loss of coordination. The onset of respiratory symptoms may be delayed for several hours after exposure.
Eye contact may cause redness and transient pain.
Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters. Prolonged or repeated skin contact may cause dry skin and irritation and defatting of the skin.
Suspected of causing cancer.
Prolonged or repeated exposure may cause damage to thymus, liver and bone marrow.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

In case of accident or if you feel unwell, seek medical advice immediately. If swallowed, patient should be monitored for signs of breathing difficulty as effects of aspiration may be delayed for up to 48 hours. If breathing is laboured, oxygen should be administered by qualified personnel.

SECTION 5. FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Suitable: Foam, water fog, inert gas, sand, earth, CO_2 or dry powder.

Not suitable: Do not use a direct water jet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Flammable liquid and vapour: Vapour may form explosive mixture with air. Vapour is heavier than air and may accumulate in confined spaces. Vapours may travel considerable distances to ignition sources where they can ignite, flash back or explode. The product will float on surface water and can reignite. Containers exposed to heat may burst due to increase in pressure.

Hazardous thermal decomposition products:

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke), Carbon monoxide, oxides of sulphur, hydrogen sulphide and unidentified organic and inorganic compounds.

5.3 ADVICE FOR FIRE-FIGHTERS

A self-contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Move undamaged containers from fire area if this can be done safely. Keep fire exposed containers cool by spraying with water. Do not allow to enter drains, sewers or watercourses.

Firefighting measures:	Isolate the source of the combustible product. If fire cannot be extinguished, allow it to die out in a controlled manner. Use water to cool down equipment and items exposed to fire.
Additional advice:	Keep adjacent containers cool by spraying with water. If possible, remove containers from the danger zone. If the fire cannot be extinguished, the only course of action is to evacuate immediately.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

6.1.1 For non-emergency personnel:

Alert emergency personnel. Keep unnecessary personnel away.

Flammable. Spillages of liquid product will create a fire hazard and may form an explosive atmosphere. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Use only non-sparkling tools. Use explosion-proof electrical, ventilating and lighting equipment.

Caution – spillage area may be slippery.

Keep upwind. Ensure adequate ventilation. Avoid inhalation of vapours. Avoid contact with skin and eyes. Wear suitable personal protective equipment. Wear appropriate respirator when ventilation is inadequate. (See Section 8). Stop the leak if safe to do so.

6.1.2 For emergency responders:

Flammable. Spillages of liquid product will create a fire hazard and may form an explosive atmosphere. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Use only non-sparkling tools. Use explosion-proof electrical, ventilating and lighting equipment.

Keep unnecessary personnel away. Keep upwind. Ensure adequate ventilation. Avoid inhalation of vapours. Avoid contact with skin and eyes. Wear suitable personal protective equipment:

Small spillages: normal antistatic working clothes are usually adequate.

Large spillages: full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons. Note: gloves made of PVA are not water-resistant and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and/or face shield, if splashes or contact with eyes is possible or anticipated.

Respiratory protection: a half or full-face respirator with filter(s) for organic vapours or, preferably, a Self-Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA should be used.

6.2 ENVIRONMENTAL PRECAUTIONS

Collect spillage. Stop the leak if it is safe to do so. Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. Inform the relevant authorities if the product has caused environmental pollution.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

6.3.1 For containment:

Stop the leak if it is safe to do so. Contain the spillage with sand, earth or any suitable adsorbent material.

6.3.2 For cleaning up:

Use sand, earth or any suitable non-combustible adsorbent material to adsorb spillages. Using non-sparking tools, transfer the contaminated absorbent material into a container for disposal.
For spillages on water, remove using appropriate methods such as skimming, booms or adsorbents. For spillages onto soil, remove contaminated soil for remediation or disposal in accordance with local regulations.

Waste containers used should be plastic-lined sealable drums. Containers should be sealed before being disposed of via an authorised waste disposal contractor.

6.4 REFERENCE TO OTHER SECTIONS

For personal protective equipment, see Section 8. For disposal, see Section13.

SECTION 7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparkling tools. Take precautionary measures against static discharge.

Use only outdoors or in a well-ventilated area. Provide adequate ventilation, including local extraction, to ensure occupational exposure limits are not exceeded. Avoid breathing vapours/spray. Avoid contact with skin and eyes. Wear suitable personal protective equipment (See Section 8). Open container slowly. The vapor is heavier than air and may create an explosive mixture of vapor and air. Beware of accumulation in confined spaces and low-lying areas. Do not enter confined spaces such as tanks or pits without following proper entry procedures.

Do not eat, drink or smoke in the vicinity of the product. Wash thoroughly after handling. Take off contaminated clothing and wash it before reuse. Contaminated clothing should be thoroughly cleaned or disposed of as hazardous waste.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Keep away from heat and sources of ignition. Keep away from direct sunlight. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool. Empty containers retain product residue and can be hazardous. Keep away from oxidising agents, reducing agents. This product must never be stored in buildings occupied by people. Drums and small containers should be stored in well-ventilated areas, flameproof cabinets or stores. Keep in a bunded area with a sealed floor to provide containment against spillage. Seek specialist advice for the design, construction and operation of bulk storage facilities.

FAMEs are less stable than conventional petroleum diesel. FAME can degrade under the influence of air, heat, light and water. Regular checks of the storage tank for signs of contamination are advised.

7.3 SPECIFIC END USE(S)

Refer to the end uses as identified section 1.2.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Workplace exposure limits
Source: EH40/2005, 3rd Ed., 2018.
None assigned.

Other exposure limits
Source: American Conference of Governmental Industrial Hygienists (ACGIH), Supplier's recommendations

Substance	Type	LTEL (8 hr TWA)		STEL (15 min)		Comments
		ppm	mg/m³	ppm	mg/m³	
Fuels, diesel	ACGIH	-	100	-	-	Can be absorbed through the skin.
Fuels, diesel	Supplier's recommendations	-	100	-	-	Can be absorbed through the skin.
Naphthalene*	ACGIH	-	10	-	-	Can be absorbed through the skin.
Naphthalene*	Supplier's recommendations	-	10	-	-	Can be absorbed through the skin.

*A component of fuels, diesel.

Biological Exposure Index (BEI): No biological limit allocated.

DNELs (Workers)

Hazard via inhalation route: Fuels, diesel: 68.3 mg/m³ (Systemic, Chronic)
4300 mg/m³ (Systemic, Acute)
No hazard identified (Local)

Hazard via dermal route:	Fuels, diesel:	2.9 mg/kg bw/day (Systemic, Chronic) No hazard identified (Systemic, Acute) High hazard (Local, Chronic) Low hazard (Local, Acute)

DNELs (Consumers)

Hazard via inhalation route:	Fuels, diesel:	20 mg/m^3 (Systemic, Chronic) 2600 mg/m^3 (Systemic, Acute) No hazard identified (Local)
Hazard via dermal route:	Fuels, diesel:	1.3 mg/kg bw/day (Systemic, Chronic) No hazard identified (Systemic, Acute) High hazard (Local, Chronic) Low hazard (Local, Acute)
Hazard via oral route:	Fuels, diesel:	1.3 mg/kg bw/day (Systemic, Chronic) No hazard identified (Systemic, Acute) No hazard identified (Local)

PNEC related information:

Product comprises mostly of hydrocarbons with a complex, unknown or variable composition. Conventional methods of deriving PNECs are not appropriate and it is not possible to identify a single representative PNEC for such substances.

Naphthalene
Freshwater: 2.4 µg/L
Marine water: 2.4 µg/L
STP: 2.9 mg/L
Sediment (freshwater): 67.2 µg/kg sediment dw
Sediment (marine water): 67.2 µg/kg sediment dw
Soil: 58.3 67.2 µg/kg soil dw
Predators: No potential for bioaccumulation

8.2 EXPOSURE CONTROLS

8.2.1 Appropriate engineering controls

Provide adequate ventilation to ensure that occupational exposure limits are not exceeded. Local extraction may be required. Eye wash and quick-drench shower facilities should be available in the work area. Contaminated clothing and shoes should be thoroughly washed before reuse.

8.2.2 Individual protection measures, such as personal protective equipment

Eye protection:	Goggles or safety glasses with side shields giving complete protection to eyes. (EN 166). Depending on conditions of use, close-fitting eye protection and a face shield may be necessary.
Skin protection:	Long sleeve protective clothing. Nitrile, neoprene or PVC apron. Rubber boots.

Hand protection:	Chemical-resistant gloves. (EN 374). Suitable glove material: nitrile, neoprene or PVC (breakthrough time > 240 minutes). Breakthrough times for gloves vary depending on, e.g. chemical resistance, material thickness, frequency and duration of contact. Selection should also take into account other usage requirements, e.g. dexterity, heat resistance, other chemical substances handled. Always seek advice from glove suppliers. Contaminated gloves should be replaced.
Respiratory protection:	Where airborne levels below the exposure limits cannot be maintained, wear an air-purifying respirator (EN 140) with a Type A/P2 filter or better suitable for organic gases and vapours with a boiling point above 65°C. (EN 14387).
Thermal hazards	Wear suitable temperature resistant gloves and protective clothing if the product is heated.

8.2.3 Environmental exposure controls:

Avoid release to the environment. Inform environmental manager of all incidents involving this product. Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an Occupational Exposure Limit and adequacy of exposure controls. For some substances, biological monitoring may also be appropriate. Information on suitable methods is available on request.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid (Clear, straw-coloured)
Odour:	Characteristic
Odour threshold:	No data available.
pH:	Not applicable.
Melting/freezing point:	No data available
Initial boiling point and boiling range:	165 – 375 °C
Flash point:	Open Cup: >55 °C
Evaporation rate:	No data available.
Flammability (solid; gas):	Not applicable
Upper/lower flammability or explosive limits:	Lower: 0.5% Upper: 6%
Vapour pressure:	0.3 kPa @20 °C
Vapour density:	> 1 (Air = 1)
Relative density:	0.82 to 0.845 @ 15 °C (Water=1)
Solubility(ies):	Immiscible in water. Miscible in aromatic solvents.
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	250 – 270 °C
Decomposition temperature:	Not available.
Viscosity:	4.8 mm^2/s @ 20 °C 2 – 4.5 mm^2/s @ 40 °C
Explosive properties:	Not explosive. Vapour may form explosive mixture in air.
Oxidising properties:	Not oxidising.

9.2 OTHER INFORMATION

Pour Point: < -24 °C

SECTION 10. STABILITY AND REACTIVITY

10.1 REACTIVITY

Reacts with oxidising agents.

10.2 CHEMICAL STABILITY

The product is stable under normal use conditions

10.3 POSSIBILITY OF HAZARDOUS REACTIONS:

No hazardous reactions expected during normal conditions.

10.4 CONDITIONS TO AVOID

Keep away from sources of ignition, hot surfaces, direct sunlight. Prevent accumulation of vapours. Contact with strong oxidizing agents e.g. chlorates and ammonium nitrate.

10.5 INCOMPATIBLE MATERIALS:

Oxidising agents e.g. chlorates and ammonium nitrate which may be used in agriculture. Strong reducing agents.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Combustion may liberate toxic fumes: Carbon monoxide, carbon dioxide, various hydrocarbons, nitrogen oxides, sulphur oxides.

SECTION 11. TOXICOLOGICAL INFORMATION

Note: All information in this section is for Fuels, diesel. Information given is based on product data, knowledge of the components and the toxicology of similar products.

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

Acute Oral Toxicity:	Not classified. Based on the available data the classification criteria are not met. Low toxicity: LD50 > 5000 mg/kg, Rat
Acute Dermal Toxicity:	Not classified. Based on the available data the classification criteria are not met. Low toxicity: LD50 >2000 mg/kg, Rabbit
Acute Inhalation Toxicity:	Harmful if inhaled LC50 4.1 mg/l / 4 h, Rat.
Skin Corrosion/Irritation:	Causes skin irritation.

Serious Eye Damage/Irritation:	Not classified. Based on the available data the classification criteria are not met.
Skin sensitisation	Not classified. Based on the available data the classification criteria are not met.
Respiratory sensitisation:	Not classified. Based on the available data the classification criteria are not met.
Carcinogenicity:	Suspected of causing cancer LOAEL: 25 mg/kg bw/day (mouse, dermal, chronic)
Reproductive Toxicity:	Not classified. Based on the available data the classification criteria are not met. Developmental toxicity: NOAEC >2110 mg/m^3 (inhalation, rat) Developmental toxicity: NOAEC 125 mg/kg bw/day (dermal, rat)
Specific target organ toxicity – single exposure:	Not classified. Based on the available data the classification criteria are not met. High concentrations of vapour may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.
Specific target organ toxicity - repeated exposure:	May cause damage to organs (Thymus, liver and bone marrow). NOAEC: 880 mg/m^3 (rat, inhalation) NOAEC: 30 mg/kg bw/day (rat, dermal, systemic)
Aspiration hazard:	May be fatal if swallowed and enters airways. Risk of aspiration into lungs resulting in chemical pneumonia.

Information on likely routes of exposure

Inhalation	High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.
Skin contact	Causes skin irritation. Prolonged or repeated skin contact may cause dry skin and irritation and defatting of the skin.
Eye contact	May cause slight eye irritation, redness, transient pain, watering.
Ingestion	May be fatal if swallowed and enters airways. Risk of aspiration into lungs resulting in chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics:
Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters. Prolonged or repeated skin contact may cause dry skin and irritation and defatting of the skin.
Eye contact may cause slight irritation, watering, redness and pain.
Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in drowsiness, dizziness, light headedness, headache, disorientation, fatigue, nausea and loss of coordination. The onset of respiratory symptoms may be delayed for several hours after exposure. Ingestion may cause irritation of the mouth and digestive tract. If swallowed, aspiration into lungs may result in chemical pneumonia.
Suspected of causing cancer. Prolonged or repeated exposure may cause damage to thymus, liver and bone marrow.
Other information:
High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.

SECTION 12. ECOLOGICAL INFORMATION

12.1 TOXICITY

Very toxic to aquatic life with long lasting effects.

Fuels, diesel:	Short-term toxicity to fish: LL50 (96 h) 21 mg/L Long-term toxicity to fish: NOEL (14 d) 0.083 mg/L

Short-term toxicity to aquatic invertebrates: EL50 (48 h) 68 mg/L
Long-term toxicity to aquatic invertebrates: NOEL (21 days) 0.2 mg/L (reproduction)
Short-term toxicity to aquatic algae: ErL50 (72 h) 22 mg/L (growth rate)

12.2 PERSISTENCE/DEGRADABILITY:

Diesel is unlikely to undergo appreciable degradation through hydrolysis or photolysis although one test indicates that diesel is biodegradable through microbial action but fails the 10-day window. However, the 10-day window is not relevant for UVCB substances, so diesel is considered biodegradable. Hydrocarbons may be degraded under aerobic conditions into metabolites that are less toxic and less bioaccumulative.

12.3 BIOACCUMULATION POTENTIAL:

Substance is a hydrocarbon UVCB so tests are not usually appropriate. Calculated Kow values are in the range of 3.9 – 6 indicating a high potential to bioaccumulate. However, in practice, metabolic processes may reduce bioconcentration.

12.4 MOBILITY:

Floats on water. Partly evaporates from water or soil surfaces, but a significant proportion will remain after one day. Large volumes may penetrate soil and could contaminate groundwater.

12.5 PBT & vPvB ASSESSMENT:

The product does not contain substances assessed to be PBT or vPvB.

12.6 OTHER ADVERSE EFFECTS:

Films formed on water may affect oxygen transfer and damage organisms.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS:

WASTE DISPOSAL	Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor to deal satisfactorily with this type of product should be established beforehand. Do not dispose into the environment, in drains or in watercourses. Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination.
PRODUCT DISPOSAL	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. European Waste Code: 13 07 01* fuel oil and diesel NOTE: This code has been assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use. Waste generators/producers are responsible for assessing the actual process used when generating the waste and its contaminants in order to assign the proper waste disposal code.

PACKAGING DISPOSAL	Waste packaging should be recycled wherever possible. Send to drum recycler or metal reclaimer. Care should be taken when handling emptied containers that have not been cleaned out. Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard if heated above the flash point. Do not puncture, cut or weld uncleaned drums. Do not pollute the soil, water or environment with the waste container. Comply with any local recovery or waste disposal regulations. Incineration or landfill should only be considered when recycling is not feasible.
LOCAL LEGISLATION:	Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with Hazardous Waste (England and Wales) Regulations 2005

SECTION 14. TRANSPORT INFORMATION

14.1 UN NUMBER

1202

14.2 UN PROPER SHIPPING NAME

DIESEL FUEL

14.3 TRANSPORT HAZARD CLASS(ES)

3

14.4 PACKING GROUP

III

14.5 ENVIRONMENTAL HAZARDS

ADR/IATA/RID/ADN YES
IMDG: Marine Pollutant: YES

14.6 SPECIAL PRECAUTIONS FOR THE USER

Read SDS and supplier instructions on correct use of the product.
Transport Category: 3
Tunnel Restriction Code: (D/E)
Emergency Action Code: 3Y

14.7 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE

The product is not intended to be transported in bulk.

SECTION 15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

This Safety Data Sheet was prepared in accordance with EC Regulation (EC) No. 1907/2006 as amended. The product has been classified in accordance with Regulation (EC) No. 1272/2008 (CLP).

15.2 CHEMICAL SAFETY ASSESSMENT

A chemical safety assessment has not been carried out for this product.

SECTION 16. OTHER INFORMATION

HISTORY:

Version 01 ISSUED 06/08/2019, first release

REFERENCES:

Concawe Report 01/97 – Petroleum Products – First Aid Emergency and Medical Advice.
Concawe Report 00/56 – Revised Preparations – Summary Data and Rationale.
CENELEC CLC/TR 50404 Electrostatics – Code of Practice for the Avoidance of Hazards Due to Static Electricity.
Dangerous Goods Regulations – ADR/RID, ADN/ADNR, IMDG, IATA.
European Model Code of Safe Practice in the Storage and Handling of Petroleum Products, Associated Octel Company.
UK – Leaded Gasoline Tank Cleaning and Disposal of Sludge (Booklet OIP/5 (5/99)).
ECHA REACH Dossier

ABBREVIATIONS:

ACGIH	American Conference of Governmental Industrial Hygienists.
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS number	Chemical Abstracts Service Number
CLP	Classification, Labelling and Packaging
EC number	European Inventory of Existing Commercial Chemical Substances or European List of Notified Chemical Substances number
EC50	Effective Concentration 50%
EL50	Effective Loading 50%
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal does
LL50	Lethal Loading 50%
LOAEL	Lowest observed adverse effect level
NOAEL	No observed adverse effect level
NOEL	No observed effect level
PBT	persistent, bioaccumulative and toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STOT	Specific target organ toxicity

TWA	Time-Weighted Average
UVCB	substance of unknown or variable composition, complex reaction products or biological materials
vPvB	very persistent and very bioaccumulative
WAF	Water Accommodated Fraction

FULL TEXT OF HAZARD STATEMENTS AND HAZARD CODES:

Flam. Liq. 3	Flammable liquids, Hazard Category 3
Asp. Tox. 1	Aspiration hazard, Hazard Category 1
Skin Irrit. 2	Skin corrosion/irritation, Hazard Category 2
Acute Tox. 4	Acute Toxicity, Hazard Category 4
Carc. 2	Carcinogenicity, Hazard Category 2
STOT RE 2	Specific Target Organ Toxicity – Repeated Exposure, Hazard Category 2
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic, Hazard Category 2
H226	Flammable liquid and vapour.
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H332	Harmful if inhaled
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long-lasting effects

SDS DISTRIBUTION AND TRAINING

This document contains important information to ensure the safe storage, handling and use of this product. The information in this document should be brought to the attention of the person in your organisation responsible for advising on safety matters. Workers should be trained to handle this substance safely.

FURTHER INFORMATION:

Users are advised to refer to relevant legislation, approved codes of practice and guidance available from the Health & Safety Executive (website: http://www.hse.gov.uk) and to the IP Codes of Practice available from the Energy Institute (website: http://www.energyinst.org.uk)

DISCLAIMER:

The above information is based on our current knowledge of the product. The purpose of this data sheet is to describe the product in terms of its safety and environmental requirements. It is the user's responsibility to satisfy themselves as to the application of this information and/or recommendations for their own use. This safety data sheet contains important information to ensure the safe storage, handling and use of this product, it does not however constitute an assessment of workplace risks. The advice given in this safety data sheet reflects the current knowledge of the hazards and risks associated with the handling of the product. If the product is mixed with other materials the users shall take these into account in identifying any additional hazards and risks might arise.



Material Safety Datasheet

READY-MIXED CONCRETE, MORTAR & SCREED

It is important that you, or any persons working for you or to whom you have supplied ready-mixed concrete, mortar or screed, become familiar with the information given on this datasheet before handling, using or disposing of the product(s).

Ready-mixed concrete, mortar & screed

1. Identification of substance/preparation and company

Company: CEMEX UK Operations Ltd
CEMEX House, Evreux Way
Rugby, Warwickshire CV21 2DT
Emergency Contact Details
Tel: 01788 542111 (out of hours 01932 568833)
Fax: 01788 540166
www.cemex.co.uk

Product:
Ready-mixed Concrete
Ready-mixed Mortar
Ready-mixed Screed
Dry Silo Mortar
Bagged Ready-mixed Concrete (addition of water required)
Bagged Ready-mixed Mortar (addition of water required)

Revision date: November 2015

Hazard information

2. Composition/information on ingredients

Concrete:
Mixture of natural aggregates, cement and water. Other ingredients may include admixtures, Fly Ash and Ground Granulated Blast-furnace Slag (GGBS). Such additions are made to alter/improve the working characteristics of the material or to affect/enhance its properties once hardened.

Mortar:
Mixture of natural aggregates, cement and water. Admixtures, hydrated lime and/or pigments may be added.

Screed:
Mixture of natural aggregates, cement and water. Admixtures, hydrated lime and/or pigments may be added.

Supaflo:
Mixture of natural aggregates, calcium sulphate and water.
2.1 Chemical description:
The principal constituents of cement are calcium silicates, aluminates, and sulphates. Small amounts of alkalis, lime and chlorides are also present. Whilst reducing agents are added to comply with the regulatory limit for Chromium (VI) their effect decreases with time and hexavalent chromium salts may be present, which give rise to a potentially hazardous solution when mixed with water. Additional constituents may also be present e.g. fly ash, limestone, clay and granulated blast furnace slag along with other minor chemical additives. The natural aggregates in concrete contain a combination of various minerals, including silica.

2.2 Hazardous ingredients:
a. The lime, calcium silicates and alkalis within the cement are partially soluble and when mixed with water will give rise to a potentially hazardous alkaline solution.
b. Hexavalent chromium salts in the cement are soluble and when mixed with water, will give rise to a potentially hazardous solution.
c. Salts of organic acid within the air entraining agents are soluble and when mixed with water will contribute to the alkalinity of the solution.
d. Airborne dust from the natural aggregates in dry concrete mixes may contain respirable silica. Long-term prolonged exposure to high levels of respirable crystalline silica, which can arise from a failure to implement adequate control measures, can lead to silicosis and ultimately an increased risk of developing lung cancer.

3. Hazards identification

R36 Causes serious eye irritation
R43 May cause an allergic skin reaction

3.1 Wet concrete, mortar and screed are strong alkalis. If this comes into contact with the eyes or skin it may cause serious burns and ulceration. The eyes are particularly vulnerable and damage will increase with contact time. Strong alkaline solutions in contact with the skin tend to damage the nerve endings first before damaging the skin, therefore chemical burns can develop without pain being felt at the time.

3.2 Concrete, mortar and screed mixes may until set cause both irritant and allergic contact dermatitis:

• Irritant contact dermatitis is due to a combination of the wetness, alkalinity and abrasiveness of the constituent materials.

• Allergic contact dermatitis is caused mainly by the sensitivity of an individual's skin to hexavalent chromium salts.

3.3 Concrete, mortar and screed dust:
Inhalation of silica particles in dust created by dry-mix bagged products, cutting set concrete or surface treatment of hardened concrete containing high silica aggregates may cause respiratory damage. Long-term prolonged exposure to high levels of respirable crystalline silica, which can arise from a failure to implement adequate control measures or wear the correct respiratory protection, can lead to silicosis and ultimately an increased risk of developing lung cancer.

Emergency action

4. First aid measures

Wet concrete, mortar & screed:
4.1 Eye contact:
Irrigate immediately with copious amounts of clean water. Seek immediate medical attention.

4.2 Skin contact:
Immediately wash with copious amounts of clean water. Clothing contaminated by wet cement, concrete or mortar should be removed and washed thoroughly before use.

4.3 Ingestion:
Wash out mouth and drink plenty of water. Do not induce vomiting. Seek medical advice if large amount is swallowed.

Concrete, Mortar and Screed dust:
4.4 Eye contact:
Irrigate immediately with copious amounts of clean water. Seek immediate medical attention.

4.5 Skin contact:
Wash the affected area thoroughly with soap and water before continuing. If irritation, pain or other skin conditions occur, seek medical advice.

4.6 Ingestion:
Do not induce vomiting. Wash out mouth with water and give patient plenty of water to drink.

4.7 Inhalation:
If irritation occurs, move to fresh air. If nose or airways become inflamed seek medical advice.

5. Fire fighting measures

Concrete, Mortar and Screed are not flammable and will not facilitate combustion with other materials.

6. Accidental release measures

6.1 Personal Precautions (See 8.3.)

6.2 Cleaning Up:
Recover bulk spillage without delay and, for wet mixes, while material is still in non-hardened (plastic) state, using suction system or mechanical shovel. The product can be slurried by the addition of water but will subsequently set as a hard material. Keep children away from clean up operation.

6.3 Environmental Measures:
Prevent from entering drains, sewers or water courses.

Precautions

7. Storage & handling

7.1 Storage:
Dry mix concrete and mortar bags should be stacked in a safe and stable manner, away from any moisture.

7.2 Handling:
• Wet Concrete, Mortar and Screed:
Avoid skin and eye contact. The risks of dermatitis and burns are increased if the material is allowed to continue rubbing against the skin (e.g. inside boots, in gloves or through saturated clothing). Do not kneel or sit on the wet materials without the correct personal protective clothing, (see 8.3).

• Concrete, Mortar and Screed dust:
The creation of dust from the cutting or surface treatment of hardened concrete should be kept to a minimum, with work methods and engineering control measures being used to reduce exposure.
It is also strongly advised to use respiratory protective equipment in such circumstances.

• Bagged dry-mix concrete and mortar:
When handling bags take care when lifting, due regard should be paid to the risks outlined in the Manual Handling Operations Regulations 1992. Some bags may have a small amount of cement on the outer surface. Appropriate personal protective clothing (see 8.3) should therefore be used whilst handling.

8. Exposure controls/personal protection

8.1 Workplace Exposure Limits:
Workplace Exposure Limits (WEL's) of 10mg/m3 total inhalable dust and 4mg/m3 respirable dust (8 hour TWA) are listed in EH40 for calcium silicate, pulverised fuel ash and limestone. WEL's of 0.05mg/m3 and 0.1mg/m3 are listed for Chromium (VI) compounds and respirable silica respectively (8 hour TWA).

8.2 Engineering Measures:
Where reasonably practicable dust exposures should be controlled by engineering methods, such as local exhaust ventilation.

WARNING

WET CEMENTITIOUS PRODUCTS such as concrete, mortar and screed MAY CAUSE SERIOUS BURNS In contact with eyes or skin.
You MUST wear the appropriate protective clothing at all times.



8.3 Personal Protective Equipment:
a. Respiratory Protection:
Suitable respiratory protection (HSE approved standard) should be worn to ensure that personal exposure is less than the workplace exposure limit values.

b. Hand and Skin Protection:
Protective clothing should be worn which ensures that concrete, mortar or screed, does not come into contact with the skin. In some circumstances such as when laying concrete, waterproof gloves, waterproof trousers and boots may be necessary, also knee pads if kneeling down to finish a surface. Particular care should be taken to ensure that wet concrete does not enter the boots and persons do not kneel on the wet concrete so as to bring the wet concrete into contact with unprotected skin. Should wet concrete, mortar or screed get inside boots, gloves or other protective clothing then this protective clothing should be immediately removed and the skin thoroughly washed as well as the protective clothing/footwear.

c. Eye Protection:
Dust-proof goggles (HSE approved standard) should be worn whenever there is a risk of cement powder or any cement/water mixture entering the eye. Suitable protection is advisable where there is a risk of material splashing.

Product information

9. Physical & chemical properties

Detailed properties vary according to:
a. The specific concrete, mortar or screed and
b. The ingredients added to affect the working characteristics of the material
All mixes are:
• Abrasive
• Alkaline (typically pH10-14)

9.1 Physical Data:

Physical state	Particulate
Mean particle size	1 – 100 microns (concrete/mortar)
Odour	N/A
pH	pH of wet concrete/mortar 9 – 12
Viscosity	N/A
Freezing point	N/A
Boiling point	N/A
Melting point	N/A
Flash point	N/A (not flammable)
Explosive properties	N/A
Typical densities	Concrete 2000 – 2500kg/m^3 Mortar 1800 – 2200kg/m^3
Dry Bulk Density	1100 - 1600kg/m^3
Solubility	N/A

10. Stability & reactivity

Reacts with moisture to become alkaline.

11. Toxicological information

11.1 Short Term Effects:
a. Eye Contact:
Mild exposure can cause soreness. Gross exposures or untreated mild exposures can lead to chemical burning and ulceration of the eye.

b. Skin:
(Short-term exposure) May cause alkali burns; may cause acute allergic dermatitis in people sensitised to chromium compounds. (Chronic long-term exposure) May cause irritant contact dermatitis; may lead to sensitisation of the skin to chromium compounds.

c. Ingestion:
The swallowing of small amounts of any cement/water mixtures is unlikely to cause significant reaction. Large doses may result in irritation to the gastro intestinal tract.

d. Inhalation:
Cement powder may cause inflammation of mucous membranes.
Inhalation of large quantities of dust or dust containing respirable silica (generated by cutting, drilling, etc.) may cause progressive lung damage, leading to permanent disability and, in extreme cases, to premature death.
11.2 Chronic Effects:
Skin exposure has been linked to allergic (chromium) dermatitis. Allergic dermatitis more commonly arises through contact with cement/water mixtures than dry cement or dry pre-mixed concrete or mortars. Long term exposure to silica dust may cause silicosis and lead to an increased risk of developing lung cancer.

12. Ecological information

12.1 Aquatic Toxicity Rating:
LC50 aquatic toxicity rating not determined. No data is available on the preparations themselves. When used as intended, no environmental impact is anticipated. If spillage occurs, do not allow material to enter drains, sewers or water courses.

12.2 Biological Oxygen Demand (BOD):
Not applicable

13. Disposal considerations

Not hazardous. However, disposal subject to local authority current requirements / regulations. Keep out of reach of children.

Product information

14. Transport information

Not hazardous. Classification for conveyance – not required.

15. Regulatory information

15.1 Chemicals (Hazard Information and Packaging for Supply) Regulations.
Classification: Irritant.

15.2 Risk/safety phrases:
Risk Phrases:
• May cause sensitisation by skin contact
• Risk of serious damage to eyes
• Contact with wet cement, mortar or screed may cause irritation, dermatitis or burns
• Contact between cement powder and bodily fluids (e.g. sweat and eye fluid) may also cause skin and respiratory irritation, dermatitis or burns
• Contains Chromium (VI) may cause allergic reaction
Safety Phrases:
• Avoid eye and skin contact by wearing suitable eye protection, clothing and gloves
• Avoid breathing dust
• Keep out of reach of children
• On contact with eyes or skin, rinse immediately with plenty of clean water. Seek medical advice after eye contact

16. Legislation & other information

• CONIAC Health Hazard Information Sheet No 26 (CEMENT)
• Health & Safety at Work, etc. Act 1974
• Consumer Protection Act 1987
• Control of Substances Hazardous to Health Regulations (COSHH) 2002
• Control of Substances Hazardous to Health (Amendment) Regulations 2004
• Construction (Design & Management) Regulations 2007
• Environmental Protection Act 1990
• HSE Guidance Note EH40 (Workplace Exposure Limits).
• Any authorised manual on First Aid by S.John's/St.Andrews/Red Cross
• Manual Handling Operations Regulations 1992 (as amended)

Prepared in accordance with UK REACH Competent Authority Information Leaflet 13 - REACH and SDS - May 2008.

Guidance references

Available from HMSO, HSE area offices, or local authority Environmental
Health Departments:
• EH40/: Workplace Exposure Limits
• A step-by-step guide to COSHH Assessment (HS[G]97)

IMPORTANT NOTES

The purpose of this datasheet is to provide Health, Safety and Environmental guidance on the safe handling, use and disposal of ready-mixed Concrete, Mortar and Screed supplied by subsidiary or affiliate companies of CEMEX in the United Kingdom.

The information contained in this datasheet is correct at the date of, and applies only in relation to, the supply of material referred to in the delivery docket to which this datasheet is attached and forms part.

This datasheet should alert purchasers and/or users to the usual hazards in handling the supplied material when using it within the ordinary range of uses for which such material is normally supplied. If you have purchased or arranged the supply on behalf of a third party who will work with the material supplied it is your duty to pass this information on to them BEFORE such work commences.

For the avoidance of doubt the datasheet DOES NOT constitute the user's own assessment of workplace risk as may be required by other safety legislation and nothing herein shall be construed or relied upon as relieving the purchaser, user or any intermediate supplier or third party from any statutory or other legal duty which may apply to them or from taking care or precautions to protect themselves or others to whom they owe a duty of care.

The datasheet should not be relied upon for any other purpose including without limitation any technical or design purpose, nor relied upon in the use or handling of any other product whether supplied by CEMEX or not. Reliance placed on any part or all of the information contained in this datasheet which goes beyond the purpose set out above is entirely at the user's own risk.

Without limiting or restricting the terms and conditions upon which the material has been supplied by CEMEX, to the extent permitted by law, disclaims all liability arising directly or indirectly from the content or preparation of this datasheet except that CEMEX will accept responsibility for personal injury which is demonstrated to have been caused by its own negligence.

WARNING

WET CEMENTITIOUS PRODUCTS such as concrete, mortar and screed MAY CAUSE SERIOUS BURNS in contact with eyes or skin.
You MUST wear the appropriate protective clothing at all times.

SAFETY DATA SHEET
GB SFM Mould Oil 10

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name GB SFM Mould Oil 10

Product number GB8423

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Concrete mould release oil

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier

GB Lubricants
Albany Road
Gateshead
Tyne & Wear
NE8 3BP
0191 490 4312
0191 477 9544
gblsales@gblubricants.co.uk

1.4. Emergency telephone number

Emergency telephone 0191 490 4312 (GB Office 0900-1700)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Asp. Tox. 1 - H304

Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) -

2.2. Label elements

Pictogram



Signal word Danger

Hazard statements H304 May be fatal if swallowed and enters airways.

Precautionary statements P501a Dispose of contents/container to hazardous or special waste collection point.

GB SFM Mould Oil 10

Supplemental label information EUH210 Safety data sheet available on request.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics **30-60%**

CAS number: — EC number: 934-956-3 REACH registration number: 01-2119827000-58-XXXX

Classification
Asp. Tox. 1 - H304

Distillates (petroleum), solvent-dewaxed heavy paraffinic **30-60%**

CAS number: 64742-65-0 EC number: 265-169-7 REACH registration number: 01-2119471299-27-XXXX

Classification
Asp. Tox. 1 - H304

Classification (67/548/EEC or 1999/45/EC)
-

Alcohols, C12-14, ethoxylated **<1%**

CAS number: 68439-50-9 EC number: 500-213-3 REACH registration number: 01-2119487984-16-0000

M factor (Acute) = 1

Classification
Eye Dam. 1 - H318
Aquatic Acute 1 - H400

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information Get medical attention if any discomfort continues.

Inhalation If spray/mist has been inhaled, proceed as follows. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention immediately.

Ingestion Do not induce vomiting. Product contains petroleum based material, which, if aspirated into the lungs may result in chemical pneumonia. Get medical attention immediately.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. PRESSURE INJECTION: Always obtain immediate medical attention even though the injury may appear minor.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

GB SFM Mould Oil 10

4.2. Most important symptoms and effects, both acute and delayed

General information	If aspiration into the lungs is suspected, eg when vomitting, admit to hospital immediately.
Inhalation	Upper respiratory irritation.
Ingestion	May be fatal if swallowed and enters airways.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.
Eye contact	May cause temporary eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Heat from fire could result in drums bursting
Hazardous combustion products	Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m3. Oxides of carbon. Oxides of nitrogen. Fire may also create other unidentified organic gases some of which may be toxic.

5.3. Advice for firefighters

Protective actions during firefighting	Control run-off water by containing and keeping it out of sewers and watercourses.
Special protective equipment for firefighters	Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	For personal protection, see Section 8. In case of spills, beware of slippery floors and surfaces.

6.2. Environmental precautions

Environmental precautions	Contain spillage with sand or earth. Avoid the spillage or runoff entering drains, sewers or watercourses. The product is insoluble in water and will spread on the water surface.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Contain spillage with sand or earth. Collect spillage for reclamation or disposal in sealed containers via a licensed waste contractor. Avoid water contacting spilled material or leaking containers. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. In case of spillage on water prevent the spread by use of suitable barrier equipment

6.4. Reference to other sections

Reference to other sections	For personal protection, see Section 8. See Section 11 for additional information on health hazards. For waste disposal, see section 13.

SECTION 7: Handling and storage

GB SFM Mould Oil 10

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Always remove oil with soap and water or skin cleaning agent, never use organic solvents. Do not use oil-contaminated clothing or shoes, and do not put rags moistened with oil into pockets.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

Storage class Miscellaneous hazardous material storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

Distillates (petroleum), solvent-dewaxed heavy paraffinic

Long-term exposure limit (8-hour TWA): ACGIH 5 mg/m³
Short-term exposure limit (15-minute): ACGIH 10 mg/m³
ACGIH = American Conference of Governmental Industrial Hygienists.

Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS: 64742-65-0)

DNEL - Inhalation; : 5.4 mg/m³

PNEC - ; 9.33 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.

Hand protection The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Other skin and body protection Use barrier creams to prevent skin contact.

Hygiene measures Use engineering controls to reduce air contamination to permissible exposure level. Wash promptly with soap and water if skin becomes contaminated.

Respiratory protection Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

GB SFM Mould Oil 10

Thermal hazards	Not anticipated under normal conditions of use. The product is combustible if heated excessively and an ignition source is applied.
Environmental exposure controls	Do not allow product to contaminate land.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Pale Amber
Odour	Mild.
Odour threshold	Not determined.
pH	Not applicable.
Melting point	Not determined.
Initial boiling point and range	>320°C @ 101.3 kPa
Flash point	> 135°C
Upper/lower flammability or explosive limits	Not known.
Other flammability	Product is not flammable but on excessive heating may become combustible.
Vapour pressure	<0.1 kPa @ 20°C
Vapour density	Not determined.
Relative density	0.843 @ 15°C
Solubility(ies)	Insoluble in water. Soluble in the following materials: Organic solvents.
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	10 cSt @ 40°C
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.

9.2. Other information

Volatile organic compound	The product is a complex mixture, the majority of which would not be classed as a VOC. However it cannot be discounted that trace or low levels of VOC's may be present.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.

GB SFM Mould Oil 10

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Unlikely to occur under normal conditions of use. Unlikely to occur.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Product does not decompose at ambient temperatures.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD_{50}) Not expected to be highly toxic based on information of ingredients.

Acute toxicity - dermal

Notes (dermal LD_{50}) Not expected to be highly toxic based on information of ingredients.

Acute toxicity - inhalation

Notes (inhalation LC_{50}) Not determined. The product is unlikely to present any significant inhalation hazard at ambient temperatures and under normal conditions of use.

Serious eye damage/irritation

Serious eye damage/irritation May cause mild, short lasting discomfort to eyes.

Respiratory sensitisation

Respiratory sensitisation Repeated exposure to oil mists may cause respiratory damage.

Skin sensitisation

Skin sensitisation Not expected to be a skin sensitizer based on information on components.

Reproductive toxicity

Reproductive toxicity - fertility No data available to suggest the product will cause reproductive toxicity.

Aspiration hazard

Aspiration hazard Kinematic viscosity <= 20.5 cSt @ 40 C. Aspiration hazard if swallowed.

General information This product has low toxicity. Only large quantities are likely to have adverse effects on human health.

Inhalation Unlikely to be hazardous by inhalation because of the low vapour pressure of the product at ambient temperature. High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting.

Ingestion Swallowing significant quantities may cause discomfort, nausea, diarrhoea and irritation of the digestive tract. May be fatal if swallowed and enters airways.

Skin contact Skin irritation should not occur when used as recommended. Repeated exposure may cause skin dryness or cracking.

Eye contact May cause temporary eye irritation.

GB SFM Mould Oil 10

Acute and chronic health hazards	Prolonged or repeated contact with used oil may cause serious skin diseases, such as dermatitis and skin cancer.

SECTION 12: Ecological information

Ecotoxicity	The product is not expected to be hazardous to the environment.

12.1. Toxicity

12.2. Persistence and degradability

Persistence and degradability	The product is not classed as being readily biodegradable by OECD test methods but is considered inherently biodegradable.
Stability (hydrolysis)	The product is based on highly refined mineral oils that are considered stable to hydrolysis.
Biodegradation	The product is not considered readily biodegradeable, albeit the major constituents are expected to ultimately biodegrade.
Biological oxygen demand	Not determined.
Chemical oxygen demand	Not determined.

12.3. Bioaccumulative potential

Bioaccumulative potential	Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.
Partition coefficient	Not determined.

12.4. Mobility in soil

Mobility	The product is non-volatile. The product is insoluble in water and will spread on the water surface.
Henry's law constant	Not determined.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects	None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

GB SFM Mould Oil 10

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations
Health and Safety at Work etc. Act 1974 (as amended).
The Pollution Prevention and Control Act 1999.
Special Waste regulations 1996.
Control of Pollution (Oil Storage) (England) Regulations 2001
The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).

EU legislation
Dangerous Preparations Directive 1999/45/EC.
Dangerous Substances Directive 67/548/EEC.
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Guidance
Workplace Exposure Limits EH40.
Safety Data Sheets for Substances and Preparations.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS
All the ingredients are listed or exempt.

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

Korea - KECI
All the ingredients are listed or exempt.

GB SFM Mould Oil 10

China - IECSC
All the ingredients are listed or exempt.

Philippines – PICCS
All the ingredients are listed or exempt.

New Zealand - NZIOC
All the ingredients are listed or exempt.

SECTION 16: Other information

Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Issued by	Regulatory Affairs
Revision date	11/06/2018
Revision	2
Supersedes date	24/09/2015
SDS number	22165
Risk phrases in full	Not classified.
Hazard statements in full	H304 May be fatal if swallowed and enters airways. H318 Causes serious eye damage. H400 Very toxic to aquatic life.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
GB Turbo SXVP 5W-30

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name GB Turbo SXVP 5W-30

Product number 7837-083

Internal identification GS22252

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Lubricant. Engine oil.

Uses advised against Non specified unless otherwise stated within this MSDS

1.3. Details of the supplier of the safety data sheet

Supplier

GB Lubricants
Albany Road
Gateshead
Tyne & Wear
NE8 3BP
0191 490 4312
0191 477 9544
gblsales@gblubricants.co.uk

1.4. Emergency telephone number

Emergency telephone 0191 490 4312 (GB Office 0900-1700)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) Not classified

2.2. Label elements

Hazard statements EUH208 Contains Calcium long chain alkaryl sulphonate. May produce an allergic reaction.

Precautionary statements P501 Dispose of contents/ container in accordance with national regulations.

Supplemental label information EUH210 Safety data sheet available on request.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

GB Turbo SXVP 5W-30

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Lubricating oil (petroleum) C20-C50,hydrotreated,neutral oil based **60-100%**

CAS number: 72623-87-1 EC number: 276-738-4 REACH registration number: 01-2119474889-13-XXXX

Classification	Classification (67/548/EEC or 1999/45/EC)
Not Classified	-

Lubricating oil (petroleum) C20-C50,hydrotreated,neutral oil based **10-30%**

CAS number: 72623-87-1 EC number: 276-738-4 REACH registration number: 01-2119474889-13-0000

Classification	Classification (67/548/EEC or 1999/45/EC)
Asp. Tox. 1 - H304	-

Polyolefin polyamine succinimide polyol **1-5%**

CAS number: —

Classification	Classification (67/548/EEC or 1999/45/EC)
Aquatic Chronic 4 - H413	R53.

Calcium long chain alkaryl sulphonate **<1%**

CAS number: 722503-68-6

Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Sens. 1 - H317 Aquatic Chronic 4 - H413	R43,R53.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments If REACH registration numbers do not appear the substance is either exempt from registration, does not meet the minimum volume threshold for registration, the registration date has not yet come due or this information is proprietary. This product contains less than 3% DMSO measured by IP346 and shall therefore not be classified.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information Get medical attention if any discomfort continues. May cause an allergic skin reaction.

Inhalation If spray/mist has been inhaled, proceed as follows. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.

Ingestion Get medical attention if any discomfort continues. Do not induce vomiting.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water.

GB Turbo SXVP 5W-30

Eye contact Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

4.2. Most important symptoms and effects, both acute and delayed

General information If aspiration into the lungs is suspected, eg when vomitting, admit to hospital immediately.

Inhalation Upper respiratory irritation.

Ingestion The product contains mineral oil, which if aspirated into the lungs through vomitting after ingestion, may result in chemical pneumonia.

Skin contact Prolonged contact may cause redness, irritation and dry skin.

Eye contact Irritation of eyes and mucous membranes.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards Heat from fire could result in drums bursting

Hazardous combustion products Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m3. Oxides of carbon. Oxides of nitrogen.

5.3. Advice for firefighters

Protective actions during firefighting Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8. Take care as floors and other surfaces may become slippery. Keep unnecessary and unprotected personnel away from the spillage.

6.2. Environmental precautions

Environmental precautions The product is insoluble in water and will spread on the water surface. Avoid the spillage or runoff entering drains, sewers or watercourses. Contain spillage with sand, earth or other suitable non-combustible material.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up In case of spillage on water prevent the spread by use of suitable barrier equipment Contain and absorb spillage with sand, earth or other non-combustible material. Collect and place in suitable waste disposal containers and seal securely. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

6.4. Reference to other sections

GB Turbo SXVP 5W-30

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Always remove oil with soap and water or skin cleaning agent, never use organic solvents. Do not use oil-contaminated clothing or shoes, and do not put rags moistened with oil into pockets.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

Storage class Miscellaneous hazardous material storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

Lubricating oil (petroleum) C20-C50,hydrotreated,neutral oil based

Long-term exposure limit (8-hour TWA): ACGIH 5 mg/m³
ACGIH = American Conference of Governmental Industrial Hygienists.

Lubricating oil (petroleum) C20-C50,hydrotreated,neutral oil based (CAS: 72623-87-1)

Ingredient comments Finnish HTP 5mg/m3 8 hr

8.2. Exposure controls

Protective equipment



Appropriate engineering controls Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.

Hand protection The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Other skin and body protection Use of suitable barrier/afterwork creams to protect skin may be beneficial.

Hygiene measures Use engineering controls to reduce air contamination to permissible exposure level. Wash promptly with soap and water if skin becomes contaminated.

Respiratory protection No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

Thermal hazards Not anticipated under normal conditions of use. The product is combustible if heated excessively and an ignition source is applied.

GB Turbo SXVP 5W-30

Environmental exposure controls	Do not allow the product to contaminate land or water.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Amber.
Odour	Characteristic. Oil-like.
Odour threshold	Not known.
pH	Not applicable.
Melting point	-42°C Pour point
Initial boiling point and range	>320°C @ 101.3 kPa
Flash point	212°C PMCC (Pensky-Martens closed cup).
Evaporation rate	Not relevant.
Upper/lower flammability or explosive limits	Not known.
Other flammability	Product is not flammable but on excessive heating may become combustible.
Vapour pressure	<0.1 kPa @ 20°C
Vapour density	Not determined.
Relative density	0.853 @ 15.6°C
Solubility(ies)	Insoluble in water. Soluble in the following materials: Organic solvents.
Partition coefficient	Not determined. log Kow:>7 Typical of mineral oil.
Auto-ignition temperature	No specific test data are available.
Decomposition Temperature	Not determined.
Viscosity	75 cSt @ 40°C
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.

9.2. Other information

Volatile organic compound	The product is a complex mixture, the majority of which would not be classed as a VOC. However it cannot be discounted that trace or low levels of VOC's may be present.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.

GB Turbo SXVP 5W-30

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Under normal conditions of storage and use, no hazardous reactions will occur.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD_{50}) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD_{50}) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC_{50}) The product is unlikely to present any significant inhalation hazard at ambient temperatures and under normal conditions of use.

Serious eye damage/irritation

Serious eye damage/irritation May cause mild, short lasting discomfort to eyes.

Respiratory sensitisation

Respiratory sensitisation Repeated exposure to oil mists may cause respiratory damage. There is no evidence that the product can cause respiratory hypersensitivity.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP346 test

Reproductive toxicity

Reproductive toxicity - fertility No data available to suggest the product will cause reproductive toxicity.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard No data available to suggest the product will cause reproductive toxicity.

General information This product has low toxicity. Only large quantities are likely to have adverse effects on human health.

GB Turbo SXVP 5W-30

Inhalation	Unlikely to be hazardous by inhalation because of the low vapour pressure of the product at ambient temperature.
Ingestion	No harmful effects expected from quantities likely to be ingested by accident.
Skin contact	Skin irritation should not occur when used as recommended. Repeated exposure may cause skin dryness or cracking.
Eye contact	May cause temporary eye irritation.
Acute and chronic health hazards	Prolonged or repeated contact with used oil may cause serious skin diseases, such as dermatitis and skin cancer.

GB Turbo SXVP 5W-30

SECTION 12: Ecological Information

Ecotoxicity Based on available data the classification criteria are not met. Not regarded as dangerous for the environment.

12.1. Toxicity

Toxicity Based on available data the classification criteria are not met. Not considered toxic to fish.

Acute toxicity - aquatic invertebrates Based on available data the classification criteria are not met.

12.2. Persistence and degradability

Persistence and degradability The product contains mineral oil which has limited biodegradability in CEC test methods but will biodegrade slowly in aerobic water and sediments and is considered ultimately biodegradable.

Stability (hydrolysis) The product is based on highly refined mineral oils that are considered stable to hydrolysis.

Biodegradation The product is not considered readily biodegradeable, albeit the major constituents are expected to ultimately biodegrade.

Biological oxygen demand Not determined.

Chemical oxygen demand Not determined.

12.3. Bioaccumulative potential

Bioaccumulative potential Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

Partition coefficient Not determined. log Kow:>7 Typical of mineral oil.

12.4. Mobility in soil

Mobility The product is non-volatile. The product is insoluble in water and will spread on the water surface.

Henry's law constant Not determined.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information This material and its container must be disposed of as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Dispose of waste via a licensed waste disposal contractor.

Waste class European waste catalogue (EWC) number = 13 02 08* (other engine, gear and lubricating oil)

SECTION 14: Transport information

GB Turbo SXVP 5W-30

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations Health and Safety at Work etc. Act 1974 (as amended).
The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
Control of Substances Hazardous to Health Regulations 2002 (as amended).
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].

EU legislation Dangerous Preparations Directive 1999/45/EC.
Dangerous Substances Directive 67/548/EEC.
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Guidance Workplace Exposure Limits EH40.
Safety Data Sheets for Substances and Preparations.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS
All the ingredients are listed or exempt.

GB Turbo SXVP 5W-30

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

Australia - AICS
All the ingredients are listed or exempt.

Korea - KECI
All the ingredients are listed or exempt.

China - IECSC
All the ingredients are listed or exempt.

Philippines – PICCS
All the ingredients are listed or exempt.

New Zealand - NZIOC
All the ingredients are listed or exempt.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. CAS: Chemical Abstracts Service. DNEL: Derived No Effect Level. GHS: Globally Harmonized System. IATA: International Air Transport Association. IMDG: International Maritime Dangerous Goods. REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006. vPvB: Very Persistent and Very Bioaccumulative.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Issued by	Regulatory Affairs
Revision date	31/05/2017
Revision	3
Supersedes date	27/04/2016
SDS number	22252
Hazard statements in full	H304 May be fatal if swallowed and enters airways. H317 May cause an allergic skin reaction. H413 May cause long lasting harmful effects to aquatic life. EUH208 Contains Calcium long chain alkaryl sulphonate. May produce an allergic reaction.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
GB Unigrease LEP00

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name GB Unigrease LEP00

Product number GB1180

Internal identification GHS22953

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Lubricant.

1.3. Details of the supplier of the safety data sheet

Supplier

GB Lubricants
Albany Road
Gateshead
Tyne & Wear
NE8 3BP
0191 490 4312
0191 477 9544
gblsales@gblubricants.co.uk

1.4. Emergency telephone number

Emergency telephone 0191 490 4312 (GB Office 0900-1700)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) -

2.2. Label elements

Hazard statements NC Not Classified

Supplemental label information EUH210 Safety data sheet available on request.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

GB Unigrease LEP00

Phosphorodithioic acid, mixed 0,0-bis(2-ethylhexyl and iso-Bu and iso-Pr)esters, zinc salts			**1-5%**
CAS number: 85940-28-9	EC number: 288-917-4	REACH registration number: 01-2119521201-61-XXXX	

Classification
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Aquatic Chronic 2 - H411

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information Get medical attention if any discomfort continues.

Ingestion Do not induce vomiting. Get medical attention if any discomfort continues.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

4.2. Most important symptoms and effects, both acute and delayed

Eye contact May cause temporary eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide, dry powder or water fog.

5.2. Special hazards arising from the substance or mixture

5.3. Advice for firefighters

Protective actions during firefighting Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8. In case of spills, beware of slippery floors and surfaces.

6.2. Environmental precautions

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or disposal in sealed containers via a licensed waste contractor. Avoid water contacting spilled material or leaking containers.

GB Unigrease LEP00

6.4. Reference to other sections

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Always remove oil with soap and water or skin cleaning agent, never use organic solvents. Do not use oil-contaminated clothing or shoes, and do not put rags moistened with oil into pockets. Avoid spilling, skin and eye contact.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

Storage class Miscellaneous hazardous material storage.

7.3. Specific end use(s)

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

8.2. Exposure controls

Protective equipment



Eye/face protection The following protection should be worn: Chemical splash goggles or face shield.

Hand protection It is recommended that gloves are made of the following material: Polyvinyl chloride (PVC).

Hygiene measures Wash promptly with soap and water if skin becomes contaminated.

Respiratory protection No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance Semi-fluid Grease.

Colour Brown.

Odour Odourless.

pH Neutral

Melting point >185°C

Relative density 0,82-0,85 @ °C

Solubility(ies) Insoluble in water. Soluble in oil

Auto-ignition temperature >200°C

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

GB Unigrease LEP00

Conditions to avoid Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General information This product has low toxicity. Only large quantities are likely to have adverse effects on human health.

Ingestion No harmful effects expected from quantities likely to be ingested by accident.

Skin contact Skin irritation should not occur when used as recommended. Repeated exposure may cause skin dryness or cracking.

Eye contact May cause temporary eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

12.2. Persistence and degradability

Persistence and degradability The product is not readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

12.4. Mobility in soil

Mobility The product is non-volatile. The product contains substances which are insoluble in water and which sediment in water systems.

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Waste class European Waste Catalogue (EWC) Code: 20 01 26* (greases)

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards

GB Unigrease LEP00

14.6. Special precautions for user

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations	Health and Safety at Work etc. Act 1974 (as amended). Control of Substances Hazardous to Health Regulations 2002 (as amended).
EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Guidance	Workplace Exposure Limits EH40. Safety Data Sheets for Substances and Preparations.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	01/06/2021
Revision	2
Supersedes date	15/09/2016
SDS number	22953
Hazard statements in full	H315 Causes skin irritation. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
ULP

According to Regulation (EC) No. 1907/2006 as amended

Issued: 06/08/2019
Ref: WFS/ Watson Fuels/ ULP / 01
Version: 01

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFIER

Chemical Identification: **ULP**
Other names: **Unleaded Petrol, Gasoline**

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Relevant Identified Uses: Fuel for use in petrol engine vehicles designed to run on unleaded petrol (spark ignition engines).

Uses advised against: This product is not to be used as a solvent or cleaning agent, for lighting or brightening fires, or as a skin cleanser. NOT for aviation use.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Supplier: Watson Fuels
Address: Lindum House
Causeway End
Brinkworth
Chippenham
Wiltshire
SN15 5DN
UK
Tel: +44 1666 510 345
Email: hse@watsonfuels.co.uk

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Telephone (24hr): **+44 (0) 333 333 9957 (24/7)**

SECTION 2. HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

ACCORDING TO REGULATION (EC) No. 1272/2008 (CLP)

Classification: Flam. Liq. 1; H224
Asp. Tox. 1; H304
Skin Irrit. 2; H315
Muta. 1B H340
Carc. 1B; H350
Repr. 2; H361df
STOT SE 3; H336
Aquatic Chronic 2; H411

Please see section 16 for full hazard statements

2.2 LABEL ELEMENTS

ACCORDING TO REGULATION (EC) No. 1272/2008 (CLP)

Hazard pictogram(s):



Signal Word: Danger

Hazard statement(s):

H224: Extremely flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H340: May cause genetic defects.
H350: May cause cancer
H361df: Suspected of damaging fertility. Suspected of damaging the unborn child
H336: May cause drowsiness or dizziness.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):

P102: Keep out of reach of children.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P331: Do NOT induce vomiting.
P405: Store locked up.
P501: Dispose of contents/container in accordance with local / national regulations.

Supplementary Hazard Information (EU): None

Hazard Determining Component(s): Gasoline; Petroleum naphtha fraction, co-processed (catalytic cracking) with renewable hydrocarbons of plant and/or animal origin.

2.3 OTHER HAZARDS:

The product does not meet the criteria for PBT or vPvB substances.
Electrostatic charge may be generated during pumping and other operations. Sparks may ignite liquid and vapour.
Vapours may form explosive mixtures with air.
Spillages make surfaces slippery.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 MIXTURES

Mixture manufactured from gasoline. Paraffinic, olefinic and aromatic hydrocarbons mixture, with a number of carbons in a rank of C4 - C12 and a boiling interval from 25 to 210ºC. Max. sulphur: 10 mg/kg.

Chemical Name	CAS No., EINECS No., Index No.	REACH Registration Number	Concentration	Classification
Gasoline A complex combination of hydrocarbons consisting primarily of paraffins, cycloparaffins, aromatic and olefinic hydrocarbons having carbon numbers predominantly greater than C3 and boiling in the range of 30°C to 260°C	86290-81-5, 289-220-8, 649-378-00-4	01-2119471335-39-xxxx	60 – 100	Flam. Liq. 1; H224 Asp. Tox. 1; H304 Skin Irrit. 2; H315 Muta 1B: H340 Carc. 1B: H350 Repr. 2: H361df STOT SE 3: H336 Aquatic Chronic 2: H411
Petroleum naphtha fraction, co-processed (catalytic cracking) with renewable hydrocarbons of plant and/or animal origin	-, [701-149-0] -	01-2120737196-51-0000	0 - < 30	Flam. Liq. 1; H224 Asp. Tox. 1; H304 Skin Irrit. 2; H315 Muta. 1B H340 Carc. 1B: H350 Repr. 2: H361df STOT SE 3: H336 STOT RE 2: H373 Aquatic Chronic 2: H411
Ethanol	64-17-5, 200-578-6, 603-002-00-5	01-2119457610-43-xxxx	0 - < 5	Flam. Liq. 2; H225
Methanol	67-56-1, 200-659-6, 603-001-00-X	01-2119433307-44-xxxx	0 - < 3	Flam. Liq. 2; H225 Acute Tox. 3; H301 Acute Tox. 3; H311 Acute Tox. 3; H331 STOT SE 1; H370 Optic nerve, CNS

Please see section 16 for full hazard statements.

SECTION 4. FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

General Advice: Obtain medical attention if symptoms do not resolve. Show this safety data sheet to the doctor in attendance.

Inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If casualty is unconscious and not breathing, or if

	breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If the casualty is unconscious and breathing, place in the recovery position with the head below level of the torso. Immediately obtain specialist medical assessment and treatment for the casualty.
Ingestion:	Obtain medical attention immediately. Do not wait for symptoms to develop. Do not induce vomiting. Do not give anything by mouth because of risk of material entering the lungs and causing lung damage. If person is drowsy or unconscious and vomiting, place on left side with head down. If possible, do not leave unattended and observe closely for adequacy of breathing.
Eye contact:	Remove contact lenses if present and easy to do. Wash eyes immediately with plenty of water, making sure to rinse under eyelids. If symptoms persist, obtain medical attention.
Skin contact:	Drench contaminated clothing with water before removing to avoid risk of sparks from static electricity. Take off contaminated clothing and wash it before reuse. Wash with plenty of soap and water. If skin irritation occurs, get medical advice/attention. For minor thermal burns, cool the burn. Hold the burned area under cold running water for at least five minutes, or until the pain subsides. Body hypothermia must be avoided. Accidental high-pressure injection through the skin requires immediate medical attention. Do not wait for symptoms to develop.
Protection of first aiders:	No action shall be taken involving any personal risk or without suitable training. Ensure adequate ventilation. Spillages make surface slippery.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Aspiration into the lungs may occur directly or following ingestion. This may cause chemical pneumonitis which may be fatal. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. Ingestion may also cause gastrointestinal irritation, nausea, diarrhoea and vomiting.

Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in drowsiness, dizziness, light headedness, headache, disorientation, fatigue, nausea and loss of coordination. The onset of respiratory symptoms may be delayed for several hours after exposure.

Eye contact may cause redness and transient pain.

Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters. Prolonged or repeated skin contact may cause dry skin and irritation and defatting of the skin.

May cause cancer. May cause genetic defects. Suspected of damaging fertility. Suspected of damaging the unborn child.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

In case of accident or if you feel unwell, seek medical advice immediately. If swallowed, patient should be monitored for signs of breathing difficulty as effects of aspiration may be delayed for up to 48 hours. If breathing is laboured, oxygen should be administered by qualified personnel.

SECTION 5. FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Suitable: Alcohol resistant foam, inert gas, sand, earth, CO_2 or dry powder.

Not suitable: Do not use a direct water jet. Do not use foam and water simultaneously, as water destroys the foam. Water spray may be inefficient for fighting fire.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Flammable liquid and vapour: Vapour may form explosive mixture with air. Vapour is heavier than air and may accumulate in confined spaces. Vapours may travel considerable distances to ignition sources where they can ignite, flash back or explode. The product will float on surface water and can reignite. Containers exposed to heat may burst due to increase in pressure.

Hazardous thermal decomposition products:

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke), carbon monoxide, oxides of sulphur, hydrogen sulphide and unidentified organic and inorganic compounds.

5.3 ADVICE FOR FIRE-FIGHTERS

A self-contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Move undamaged containers from fire area if this can be done safely. Keep fire exposed containers cool by spraying with water. Do not allow to enter drains, sewers or watercourses. Isolate the area.

Firefighting measures: Isolate the source of the combustible product. If fire cannot be extinguished, allow it to die out in a controlled manner. Use water to cool down equipment and items exposed to fire.

Additional advice: Keep adjacent containers cool by spraying with water. If possible, remove containers from the danger zone. If the fire cannot be extinguished, the only course of action is to evacuate immediately.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

6.1.1 For non-emergency personnel:

Alert emergency personnel. Keep unnecessary personnel away.

Flammable. Spillages of liquid product will create a fire hazard and may form an explosive atmosphere. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Use only non-sparkling tools. Use explosion-proof electrical, ventilating and lighting equipment.

Caution – spillage area may be slippery.

Keep upwind. Ensure adequate ventilation. Avoid inhalation of vapours. Avoid contact with skin and eyes. Wear suitable personal protective equipment. Wear appropriate respirator when ventilation is inadequate. (See Section 8). Stop the leak if safe to do so.

6.1.2 For emergency responders:

Flammable. Spillages of liquid product will create a fire hazard and may form an explosive atmosphere. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Use only non-sparkling tools. Use explosion-proof electrical, ventilating and lighting equipment.

Keep unnecessary personnel away. Keep upwind. Ensure adequate ventilation. Avoid inhalation of vapours. Avoid contact with skin and eyes. Wear suitable personal protective equipment:

Small spillages: normal antistatic working clothes are usually adequate.

Large spillages: full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons. Note: gloves made of PVA are not water-resistant and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and/or face shield, if splashes or contact with eyes is possible or anticipated.

Respiratory protection: a half or full-face respirator with filter(s) for organic vapours or, preferably, a Self-Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA should be used.

6.2 ENVIRONMENTAL PRECAUTIONS

Collect spillage. Stop the leak if it is safe to do so. Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. Inform the relevant authorities if the product has caused environmental pollution.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

6.3.1 For containment:

Stop the leak if it is safe to do so. Contain the spillage with sand, earth or any suitable non-combustible adsorbent material.

6.3.2 For cleaning up:

Use sand, earth or any suitable non-combustible adsorbent material to adsorb spillages. Using non-sparking tools, transfer the contaminated absorbent material into a container for disposal.
For spillages on water, remove using appropriate methods such as skimming, booms or adsorbents. For spillages onto soil, remove contaminated soil for remediation or disposal in accordance with local regulations.

Waste containers used should be plastic-lined sealable drums. Containers should be sealed before being disposed of via an authorised waste disposal contractor.

6.4 REFERENCE TO OTHER SECTIONS

For personal protective equipment, see Section 8. For disposal, see Section13.

SECTION 7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Extremely flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparkling tools. Take precautionary measures against static discharge.

Use only outdoors or in a well-ventilated area. Provide adequate ventilation, including local extraction, to ensure occupational exposure limits are not exceeded. Avoid breathing vapours/spray. Avoid contact with skin and eyes. Wear suitable personal protective equipment (See Section 8). Open container slowly. The vapor is heavier than air and may create an explosive mixture of vapor and air. Beware of accumulation in confined spaces and low-lying areas. Do not enter confined spaces such as tanks or pits without following proper entry procedures.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Avoid release to the environment.

Do not eat, drink or smoke in the vicinity of the product. Wash thoroughly after handling. Take off contaminated clothing and wash it before reuse. Contaminated clothing should be thoroughly cleaned or disposed of as hazardous waste.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Keep away from heat and sources of ignition. Keep away from direct sunlight. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool. Empty containers retain product residue and can be hazardous. Keep away from oxidising agents, reducing agents. This product must never be stored in buildings occupied by people. Drums and small containers should be stored in well-ventilated areas, flameproof cabinets or stores. Keep in a bunded area with a sealed floor to provide containment against spillage. Seek specialist advice for the design, construction and operation of bulk storage facilities.

7.3 SPECIFIC END USE(S)

Refer to the end uses as identified section 1.2.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Workplace exposure limits

Source: EH40/2005, 3rd Ed., 2018, Suppliers' recommendations and American Conference of Governmental Industrial Hygienists (ACGIH).

Substance	Type	LTEL (8 hr TWA)		STEL (15 min)		Comments
		ppm	mg/m³	ppm	mg/m³	
Gasoline	ACGIH	300		500	-	
Gasoline	Supplier's recommendations	0.5 (1)		2.5 (1)	-	Sk
Petroleum naphtha fraction, co-processed (catalytic cracking) with renewable hydrocarbons of plant and/or animal origin	Supplier's recommendations		450		1100	Sk
Toluene (2)	UK, EH40	50	191	100	384	Sk
n-Hexane (2)	UK, EH40	20	72	-	-	
Benzene (2)	UK, EH40	1	3.25	-	-	Carc, Sk
Ethylbenzene (2)	UK, EH40	100	441	125	552	Sk
Xylene, mixed isomers (2)	UK, EH40	50	220	100	441	Sk, BMGV
Ethanol	UK, EH40	1000	1920			
Methanol	UK, EH40	200	266	250	333	Sk

(1) (with > 0.1% benzene)
(2) Components of gasoline.
Sk Can be absorbed through the skin
Carc Capable of causing cancer and/or heritable genetic damage.
BMGV Biological monitoring guidance values

Biological Monitoring Guidance Values

Substance	BMGV	Sampling Time
Xylene, o-, m-, p- or mixed isomers	650 mmol methyl hippuric acid/mol creatinine in urine	Post shift

DNELs (Workers)

Hazard via inhalation route:

	Gasoline	Petroleum naphtha fraction, co-processed (catalytic cracking) with renewable hydrocarbons of plant and/or animal origin	Ethanol	Methanol
Systemic, Chronic	No hazard identified	No hazard identified	950 mg/m³	260 mg/m³
Systemic, Acute	1300 mg/m³	1300 mg/m³	No hazard identified	260 mg/m³
Local, Chronic	840 mg/m³	840 mg/m³	No hazard identified	260 mg/m³
Local, Acute	1100 mg/m³	1100 mg/m³	No hazard identified	260 mg/m³

Hazard via dermal route:

	Gasoline	Petroleum naphtha fraction, co-processed (catalytic cracking) with renewable hydrocarbons of plant and/or animal origin	Ethanol	Methanol
Systemic, Chronic	No hazard identified	No hazard identified	343 mg/kg bw/day	40 mg/kg bw/day
Systemic, Acute	No hazard identified	No hazard identified	No hazard identified	40 mg/kg bw/day
Local, Chronic	High hazard	Medium hazard	No hazard identified	No hazard identified
Local, Acute	Low hazard	Medium hazard	No hazard identified	No hazard identified

DNELs (Consumers)

Hazard via inhalation route:

	Gasoline	Petroleum naphtha fraction, co-processed (catalytic cracking) with renewable hydrocarbons of plant and/or animal origin	Ethanol	Methanol
Systemic, Chronic	No hazard identified	No hazard identified	114 mg/m³	50 mg/m³
Systemic, Acute	1200 mg/m³	1200 mg/m³	No hazard identified	50 mg/m³
Local, Chronic	180 mg/m³	180 mg/m³	No hazard identified	50 mg/m³
Local, Acute	640 mg/m³	640 mg/m³	No hazard identified	50 mg/m³

Hazard via dermal route:

	Gasoline	Petroleum naphtha fraction, co-processed (catalytic cracking) with renewable hydrocarbons of plant and/or animal origin	Ethanol	Methanol
Systemic, Chronic	No hazard identified	No hazard identified	206 mg/kg bw/day	8 mg/kg bw/day
Systemic, Acute	No hazard identified	No hazard identified	No hazard identified	8 mg/kg bw/day
Local, Chronic	High hazard	Medium hazard	No hazard identified	No hazard identified
Local, Acute	Low hazard	Medium hazard	No hazard identified	No hazard identified

Hazard via oral route:

	Gasoline	Petroleum naphtha fraction, co-processed (catalytic cracking) with renewable hydrocarbons of plant and/or animal origin	Ethanol	Methanol
Systemic, Chronic	No hazard identified	No hazard identified	87 mg/kg bw/day	8 mg/kg bw/day
Systemic, Acute	No hazard identified	No hazard identified	No hazard identified	8 mg/kg bw/day

PNEC related information:

Gasoline and Petroleum naphtha fraction, co-processed (catalytic cracking) with renewable hydrocarbons of plant and/or animal origin: Products comprise mostly of hydrocarbons with a complex, unknown or variable composition. Conventional methods of deriving PNECs are not appropriate and it is not possible to identify a single representative PNEC for such substances.

PNEC	Ethanol	Methanol
Freshwater	0.96 mg/L	20.8 mg/L
Freshwater (intermittent releases)	2.75 mg/L	1 540 mg/L
Marine water	0.79 mg/L	2.08 mg/L
STP	580 mg/L	100 mg/L
Sediment (freshwater)	3.6 mg/kg sediment dw	77 mg/kg sediment dw
Sediment (marine water)	2.9 mg/kg sediment dw	7.7 mg/kg sediment dw
Air	No hazard identified	No hazard identified
Soil	0.63 mg/kg soil dw	100 mg/kg soil dw
Oral (Predators, secondary poisoning)	0.38 g/kg food	No potential for bioaccumulation

8.2 EXPOSURE CONTROLS

8.2.1 Appropriate engineering controls

Provide adequate ventilation to ensure that occupational exposure limits are not exceeded. Local extraction may be required. Eye wash and quick-drench shower facilities should be available in the work area. Contaminated clothing and shoes should be thoroughly washed before reuse.

8.2.2 Individual protection measures, such as personal protective equipment

Eye protection: Goggles or safety glasses with side shields giving complete protection to eyes. (EN 166). Depending on conditions of use, close-fitting eye protection and a face shield may be necessary.

Skin protection: Long sleeve protective clothing. Nitrile, neoprene or PVC apron. Rubber boots.

Hand protection: Chemical-resistant gloves. (EN 374). Suitable glove material: nitrile, neoprene or PVC (breakthrough time > 240 minutes).
Breakthrough times for gloves vary depending on, e.g. chemical resistance, material thickness, frequency and duration of contact. Selection should also consider other usage requirements, e.g. dexterity, heat resistance, other chemical substances handled. Always seek advice from glove suppliers. Contaminated gloves should be replaced.

Respiratory protection: Where airborne levels below the exposure limits cannot be maintained, wear an air-purifying respirator (EN 140) with a Type A/P2 filter or better suitable for organic gases and vapours with a boiling point above 65°C. (EN 14387).

Thermal hazards Wear suitable temperature resistant gloves and protective clothing if the product is heated.

8.2.3 Environmental exposure controls:

Avoid release to the environment. Inform environmental manager of all incidents involving this product. Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an Occupational Exposure Limit and adequacy of exposure controls. For some substances, biological monitoring may also be appropriate. Information on suitable methods is available on request.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid (Clear and bright, pale yellow coloured)
Odour:	Characteristic - gasoline
Odour threshold:	No data available.
pH:	Not applicable.
Melting/freezing point:	No data available
Initial boiling point and boiling range:	22 – 210 °C
Flash point:	- 40 °C (ASTM D56)
Evaporation rate:	10 – 11 (nBuAc = 1)
Flammability (solid; gas):	Not applicable
Upper/lower flammability or explosive limits:	Lower: 1.3 % Upper: 7.6 %
Vapour pressure:	45-100 kPa @20°C
Vapour density:	> 1 (Air = 1)
Relative density:	0.720-0.775 @15°C
Solubility(ies):	Solubility in water: 0.01g/L
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	450 °C
Decomposition temperature:	Not available.
Viscosity:	0.5-1.5 mm^2/s @ 20°C
Explosive properties:	Not explosive. Vapour may form explosive mixture in air.
Oxidising properties:	Not oxidising.

9.2 OTHER INFORMATION

Pour Point:	No data available

SECTION 10. STABILITY AND REACTIVITY

10.1 REACTIVITY

Reacts with oxidising agents.

10.2 CHEMICAL STABILITY

The product is stable under normal use conditions

10.3 POSSIBILITY OF HAZARDOUS REACTIONS:

No hazardous reactions expected during normal conditions.

10.4 CONDITIONS TO AVOID

Avoid high temperatures. Keep away from all sources of ignition, hot surfaces, direct sunlight. Prevent accumulation of vapours. Contact with strong oxidizing agents e.g. chlorates and ammonium nitrate.

10.5 INCOMPATIBLE MATERIALS:

Strong oxidising agents and strong reducing agents.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Combustion may liberate toxic fumes: Carbon monoxide, carbon dioxide, various hydrocarbons, nitrogen oxides, sulphur oxides.

SECTION 11. TOXICOLOGICAL INFORMATION

Note: All information in this section is for Fuels, diesel. Information given is based on product data, knowledge of the components and the toxicology of similar products.

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

Acute Oral Toxicity:	Not classified. Based on the available data the classification criteria are not met.
Acute Dermal Toxicity:	Not classified. Based on the available data the classification criteria are not met.
Acute Inhalation Toxicity:	Not classified. Based on the available data the classification criteria are not met.
Skin Corrosion/Irritation:	Causes skin irritation.
Serious Eye Damage/Irritation:	Not classified. Based on the available data the classification criteria are not met.
Skin sensitisation:	Not classified. Based on the available data the classification criteria are not met.
Respiratory sensitisation:	Not classified. Based on the available data the classification criteria are not met.
Germ Cell Mutagenicity:	May cause genetic defects.
Carcinogenicity:	May cause cancer.
Reproductive Toxicity:	Suspected of damaging fertility and the unborn child
Specific target organ toxicity – single exposure:	May cause drowsiness or dizziness. (CNS by inhalation) High concentrations of vapour may cause central nervous system (CNS) depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.
Specific target organ toxicity - repeated exposure:	Not classified. Based on the available data the classification criteria are not met.
Aspiration hazard:	May be fatal if swallowed and enters airways. Risk of aspiration into lungs resulting in chemical pneumonia.

Information on likely routes of exposure

Inhalation	High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.
Skin contact	Causes skin irritation. Prolonged or repeated skin contact may cause dry skin and

irritation and defatting of the skin.

Eye contact May cause slight eye irritation, redness, transient pain, watering.

Ingestion May be fatal if swallowed and enters airways. Risk of aspiration into lungs resulting in chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics:

Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters. Prolonged or repeated skin contact may cause dry skin and irritation and defatting of the skin.

Eye contact may cause slight irritation, watering, redness and pain.

Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in drowsiness, dizziness, light headedness, headache, disorientation, fatigue, nausea and loss of coordination. The onset of respiratory symptoms may be delayed for several hours after exposure. Ingestion may cause irritation of the mouth and digestive tract. If swallowed, aspiration into lungs may result in chemical pneumonia.

Chronic Effects:

May cause genetic defects. May cause cancer. Suspected of damaging fertility and the unborn child

Other information:

High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.

SECTION 12. ECOLOGICAL INFORMATION

12.1 TOXICITY

Very toxic to aquatic life with long lasting effects.

	Gasoline	Petroleum naphtha fraction, co-processed (catalytic cracking) with renewable hydrocarbons of plant and/or animal origin	Ethanol	Methanol
Short-term toxicity to fish	LL50 (96 hours) 8.2 - 10 mg/L (WAF)	LL50 11 mg/L (estimated)	LC50 11200 mg/L	LC50 15400 mg/L
Long-term toxicity to fish	EL50 (21 days) 10 mg/L	LL50 0.92 mg/L (estimate)	EC10 250 mg/L	NOEC: 450 mg/L
Short-term toxicity to aquatic invertebrates	EL50 (48 hours) 4.5 mg/L (WAF)	EC50 7.6 mg/	EC50 857 mg/L, (marine water invertebrates)	LC50 >10000 mg/L
Long-term toxicity to aquatic invertebrates	NOELR (21 days) 2.6 mg/L	LL50 1.59 mg/L (estimate)	NOEC 79 mg/L, (marine water invertebrates)	NOEC 208 mg/L
Short-term toxicity to aquatic algae	EL50 (72h) 3.1 mg/L (WAF)	EC50 3.1 mg/L	EC50 275 mg/L	EC50 22000 mg/L

12.2 PERSISTENCE/DEGRADABILITY:

Gasoline is a hydrocarbon UVCB, so tests are not usually appropriate. Gasoline has the potential to be inherently biodegradable. Ethanol and Methanol are readily biodegradable.

12.3 BIOACCUMULATION POTENTIAL:

Gasoline is a hydrocarbon UVCB, so tests are not usually appropriate. Ethanol and methanol have a low potential for bioaccumulation (log Kow < 3).

12.4 MOBILITY IN SOIL:

Gasoline floats on water. Partly evaporates from water or soil surfaces, but a significant proportion will remain after one day. Large volumes may penetrate soil and could contaminate groundwater. Ethanol and methanol are soluble in water.

12.5 PBT & vPvB ASSESSMENT:

The product does not contain substances assessed to be PBT or vPvB.

12.6 OTHER ADVERSE EFFECTS:

Films formed on water may affect oxygen transfer and damage organisms.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS:

WASTE DISPOSAL	Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor to deal satisfactorily with this type of product should be established beforehand. Do not dispose into the environment, in drains or in watercourses. Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination.
PRODUCT DISPOSAL	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. European Waste Code: 13 07 02 petrol NOTE: This code has been assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use. Waste generators/producers are responsible for assessing the actual process used when generating the waste and its contaminants in order to assign the proper waste disposal code.
PACKAGING DISPOSAL	Waste packaging should be recycled wherever possible. Send to drum recycler or metal reclaimer. Care should be taken when handling emptied containers that have not been cleaned out. Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard if heated above the flash point. Do not puncture, cut or weld uncleaned drums. Do not pollute the soil, water or environment with the waste container. Comply with any local recovery or waste disposal regulations. Incineration or landfill should only be considered when recycling is not feasible.
LOCAL LEGISLATION:	Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with Hazardous Waste (England and Wales) Regulations 2005

SECTION 14. TRANSPORT INFORMATION

14.1 UN NUMBER

1203

14.2 UN PROPER SHIPPING NAME

PETROL

14.3 TRANSPORT HAZARD CLASS(ES)

3

14.4 PACKING GROUP

II

14.5 ENVIRONMENTAL HAZARDS

ADR/IATA/RID/ADN	YES
IMDG:	Marine Pollutant: YES

14.6 SPECIAL PRECAUTIONS FOR THE USER

Read SDS and supplier instructions on correct use of the product.

Transport Category:	2
Tunnel Restriction Code:	(D/E)
Emergency Action Code:	3YE

14.7 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE

The product is not intended to be transported in bulk. MARPOL Annex 1 rules apply for bulk shipments by sea.

SECTION 15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

This Safety Data Sheet was prepared in accordance with EC Regulation (EC) No. 1907/2006 as amended. The product has been classified in accordance with Regulation (EC) No. 1272/2008 (CLP).

15.2 CHEMICAL SAFETY ASSESSMENT

A chemical safety assessment has not been carried out.

SECTION 16. OTHER INFORMATION

HISTORY:

Version 01 ISSUED	06/08/2019, first release

REFERENCES:

Concawe Report 01/97 – Petroleum Products – First Aid Emergency and Medical Advice.
Concawe Report 00/56 – Revised Preparations – Summary Data and Rationale.
CENELEC CLC/TR 50404 Electrostatics – Code of Practice for the Avoidance of Hazards Due to Static Electricity.
Dangerous Goods Regulations – ADR/RID, ADN/ADNR, IMDG, IATA.
European Model Code of Safe Practice in the Storage and Handling of Petroleum Products, Associated Octel Company.
UK – Leaded Gasoline Tank Cleaning and Disposal of Sludge (Booklet OIP/5 (5/99)).
ECHA REACH Dossier

ABBREVIATIONS:

ACGIH	American Conference of Governmental Industrial Hygienists.
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS number	Chemical Abstracts Service Number
CLP	Classification, Labelling and Packaging
EC number	European Inventory of Existing Commercial Chemical Substances or European List of Notified Chemical Substances number
EC50	Effective Concentration 50%
EL50	Effective Loading 50%
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal does
LL50	Lethal Loading 50%
LOAEL	Lowest observed adverse effect level
NOAEL	No observed adverse effect level
NOEL	No observed effect level
PBT	persistent, bioaccumulative and toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STOT	Specific target organ toxicity
TWA	Time-Weighted Average
UVCB	substance of unknown or variable composition, complex reaction products or biological materials
vPvB	very persistent and very bioaccumulative
WAF	Water Accommodated Fraction

FULL TEXT OF HAZARD STATEMENTS AND HAZARD CODES:

Flam. Liq. 1 or 2	Flammable liquids, Hazard Categories 1 or 2
Asp. Tox. 1	Aspiration hazard, Hazard Category 1
Skin Irrit. 2	Skin corrosion/irritation, Hazard Category 2
Acute Tox. 3	Acute Toxicity, Hazard Category 3
Muta. 1B	Germ cell mutagenicity, Hazard Category 1B
Carc. 1B	Carcinogenicity, Hazard Category 1B
Repr. 2	Reproductive toxicity, Hazard Category 2
STOT SE 3	Specific Target Organ Toxicity – Single Exposure, Hazard Category 3
STOT RE 1 or 2	Specific Target Organ Toxicity – Repeated Exposure, Hazard Category 1 or 2
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic, Hazard Category 2
H224	Extremely flammable liquid and vapour.

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin
H315	Causes skin irritation.
H331	Toxic if inhaled
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H350	May cause cancer.
H361df	Suspected of damaging fertility. Suspected of damaging the unborn child
H370	Causes damage to organs (Optic nerve, central nervous system)
H373	May cause damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long-lasting effects

SDS DISTRIBUTION AND TRAINING

This document contains important information to ensure the safe storage, handling and use of this product. The information in this document should be brought to the attention of the person in your organisation responsible for advising on safety matters. Workers should be trained to handle this substance safely.

FURTHER INFORMATION:

Users are advised to refer to relevant legislation, approved codes of practice and guidance available from the Health & Safety Executive (website: http://www.hse.gov.uk) and to the IP Codes of Practice available from the Energy Institute (website: http://www.energyinst.org.uk)

DISCLAIMER:

The above information is based on our current knowledge of the product. The purpose of this data sheet is to describe the product in terms of its safety and environmental requirements. It is the user's responsibility to satisfy themselves as to the application of this information and/or recommendations for their own use. This safety data sheet contains important information to ensure the safe storage, handling and use of this product, it does not however constitute an assessment of workplace risks. The advice given in this safety data sheet reflects the current knowledge of the hazards and risks associated with the handling of the product. If the product is mixed with other materials the users shall take these into account in identifying any additional hazards and risks might arise.

SAFETY DATA SHEET

Section 1: Identification of the substance/preparation and of the company/undertaking

1.1:	**Product name**	**Prime-a-Pump**
	Chemical Name	Mixture
	Synonyms	Mixture
	Formula	Mixture
	CAS Number	Not applicable
	EINECS Number	Not applicable

1.2: Relevant Identified uses of the substance and uses advised against.

	Product uses	Concrete pump primer

1.3: Details of Supplier

Prime-a-Pump Ltd
PO Box 4759
Maidenhead
SL60 1HT
UK

Contact:	Dan Williamson
Email	info@primeapump.co.uk
Telephone	+44 (0)330 024 4662

1.4: Emergency Phone (24hrs) Telephone +44 (0)330 024 4662

Section 2: Hazard Identification

2.1 Classification of substances and mixtures

Physical	Not Classified
Health	Eye Irritation (category 2A) H319
Environmental	Not Classified

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2: Label Elements

Pictogram



H319	Causes serious eye irritation.
Precautionary statement(s)	
P264	Wash skin thoroughly after handling.
P280	Wear eye protection/ face protection.

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.

Labelling according to regulation (EC) No 1272/2008

2.3 Other Hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

Section 3: Composition

3.1 Substances

Sodium Carbonate	00497-19-8	Eye Irritation (category 2A) H319	30-60%
Polymer	Commercially Confidential	Not Classified	30-60%
Solid Lubricant	Commercially Confidential	Not Classified	5-30%

REACH registration notes	Substances contained in this product that are not classified as hazardous have been/will be registered for REACH at the appropriate time.

Section 4: First aid measures

4.1 Description of First Aid Measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.
Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.
Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Never give anything by mouth to an unconscious person.
Rinse mouth with water.
Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3. Indication of any immediate medical attention and special treatment needed

No data available.

Section 5: Fire Fighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media	Use water spray or powder.

5.2 Special hazards arising from substance or mixture

Specific Hazards Hazardous combustion products	Carbon oxides and sodium oxides.

5.3 Advice to Fire fighters

Special protective equipment for fire fighters	Wear self-contained breathing apparatus for firefighting if necessary.

Section 6: Accidental Release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust. For personal protection, see section 8.

6.2. Environmental precautions

Environmental precautions	Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Pick up and arrange disposal without creating dust. Damp down sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

Reference to other sections	For disposal see section 13.

Section 7: Handling and Storage

7.1. Precautions for safe handling

Usage precautions	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. For precautions, see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions	Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Ingredient comments	Treat the mixture as a nuisance dust.

8.2. Exposure controls

Wear gloves, protective glasses and normal work wear.

Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Eye/face protection	Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Hand protection	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Wash and dry hands. Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min
Other skin and body protection	Wear dust proof coveralls meeting type 5.
Hygiene measures	Wash thoroughly after contact.
Respiratory protection	Use EU P3 mask or respirator cartridges.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance Colour	White to grey powder
pH	12 at 106 g/l at 25 °C (77 °F)
Melting point	Not available
Initial boiling point and range	Not available
Vapour pressure	Not available
Relative density	Not available
Solubility	Partially soluble
Partition coefficient	Not available

9.2 Other Information

Other Information	No Data available

Section 10: Stability and Reactivity

10.1 Reactivity

Reactivity	No Data available

10.2 Chemical Stability

Stability	Material is hygroscopic

10.3 Possibility of hazardous reactions

Possibility of hazardous reactions	None identified

10.4 Conditions to avoid

Conditions to avoid	Exposure to moisture

10.5 Incompatible materials

Incompatible materials	Strong acids

10.6. Hazardous decomposition products

Hazardous decomposition products	No data available

Section 11: Toxicological Information

11.1. Information on toxicological effects (Sodium Carbonate)

Inhalation	LC50 Inhalation - Rat - 2 h - 5,750 mg/l
Ingestion	LD50 Oral - Rat - 4,090 mg/kg
Skin contact	Skin - Rabbit Result: Mild skin irritation - 24 h
Eye contact	Eyes - Rabbit Result: Eye irritation - 24 h

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP:

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Section 12: Ecotoxicity

12.1. Toxicity

Acute toxicity - fish

LC50 - Lepomis macrochirus (Bluegill) - 300 mg/l - 96 h

Acute toxicity - aquatic Invertebrates

No Data Available

EC50 - Daphnia magna (Water flea) - 265 mg/l - 48 h

No data available

Acute toxicity - aquatic plants

No data available

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4 Mobility in Soil:

Not determined

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6: Other adverse effects.

Not determined

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods	Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Section 14: Transport Information

General	Not classified as dangerous for transport.
14.1 UN Number - Not required	
14.2 Proper shipping name	No information required
14.3 Transport Hazard class	No information required
14.4 Packing group	No information
14.5 Environmental Hazards	Not an environmentally hazardous product
14.6 Special precautions for user	No information required
14.7 Transport in bulk according to:	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Section 15: Regulatory Information

15.1: Safety health and environmental regulations/legislation specific to the substance or mixture

EU regulation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Section 16: Other Information

Hazard and precautionary statements H319	Causes serious eye irritation.
Precautionary statement(s)	
P264	Wash skin thoroughly after handling.
P280	Wear eye protection / face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.

SAFETY DATA SHEET

Product: READY MIXED CONCRETE

Issue Date: August 2016 **Issue no:** 01

1. Identification of Substance/Preparation & Company/ Undertaking

Substance name: READY MIXED CONCRETE

Company Details: Hope Cement Limited (Breedon Group)
Breedon Quarry,
Breedon on the Hill,
Derby,
DE73 8AP

Telephone: 01332 694 001

Email: enquiries@breedongroup.com

Web: www.breedongroup.com

2. Hazard Identification



Classified as hazardous (irritant) in accordance with the Chemicals (Hazard Information and Packaging for Supply) Regulations.

Wet concrete can cause serious alkali burns if in direct contact with skin or eyes.

Skin
Alkali burns, a form of skin ulceration, may result from contact with freshly mixed concrete.

Contact with strongly alkaline solutions such as concrete can initially cause nerve damage. Chemical burns may occur without the person being aware because they do not feel any pain.

Contact with wet cement mixes such as wet concrete can cause skin disease. Irritant contact dermatitis is caused by the combination of the wetness, alkalinity and abrasiveness of the ready-mixed concrete.

Allergic contact dermatitis may be caused by individual sensitivity to chromium compounds which may occur in cement.

Eyes
Wet concrete in contact with eyes can cause irritation, inflammation or serious alkali burns, which may lead to blindness.

Ingestion
Swallowing small amounts of fresh concrete is unlikely to cause any significant reaction. Larger amounts can cause irritation of the stomach and intestines.

Inhalation
Wet concrete is not likely to create dust, but respirable dust may be released by the surface treatment and cutting or drilling of hardened concrete. If inhaled in excessive quantities over a prolonged period or extended period, respirable dust can constitute a long term health hazard.

Dusts containing Respirable Crystalline Silica (quartz) present a greater hazard. Long-term exposure to respirable dust can lead to respiratory system damage and disease. Respirable crystalline silica has been associated with the lung disease silicosis.

The quartz content of the product will vary, and is related to the type of aggregate used in the production of the concrete. Advice on the quartz content and other chemical information is available from the supplying unit.

3. Composition / Information on Ingredients

Ready-mixed concrete is a mixture of:

- A cementitious material which may be cement or a mixture of cement with an addition (eg fly ash, ground granulated blast furnace slag or silica fume).
- Fine and coarse aggregate.
- Water
- Admixtures or additives may be added to modify the properties of the fresh or hardened concrete. Pigments may be added to colour the product.

The proportions of the components will vary according to the required properties of the product.

4. First Aid Measures

Inhalation
If concrete dust is inhaled, remove to fresh air. If breathing difficulties or inflammation are experienced, seek medical attention.

Skin Contact
Where skin contact occurs with wet concrete, either directly or through saturated clothing, the concrete must be washed off immediately with soap and water.

Where concrete enters boots or gloves, or saturates clothing, the article should be removed immediately and washed before further use.

Eye Contact
Immediately and thoroughly irrigate with copious amounts of eye wash solution or clean water. Seek medical attention immediately.

Ingestion
Remove to fresh air. If person is conscious, rinse out mouth and give water to drink. Seek medical advice.

5. Fire Fighting Measures

Concrete is non-flammable and is not combustible.

Suitable Extinguishing Media:
Not applicable.

Unsuitable Extinguishing Media:
Not applicable.

Special Exposure Hazards in Fire:
None.

Special Protective Equipment for Fire Fighters:
None.

6. Accidental Release Measures

Personal Precautions:
Avoid contact with skin and eyes. Wear impervious clothing, gloves and boots. Wear eye protection. See Section 8 for guidance on personal protective equipment. See Section 7 for guidance on handling the product.

Environmental Precautions:
Prevent wet concrete from entering watercourses, ditches and drains.

Methods for Cleaning:
Clean up any spillage before the concrete hardens, using suction or mechanical removal methods.

7. Handling and Storage

Handling
Avoid skin and eye contact. Wet concrete can cause serious alkali burns if in direct contact with skin or eyes. Contact with concrete may also cause skin disease by the combination of the wetness, alkalinity and abrasiveness of the ready-mixed concrete. Allergic contact dermatitis may be caused by individual sensitivity to chromium compounds which may occur in cement.

Do not sit or kneel on wet, un-hardened concrete without wearing the correct personal protective equipment.

Where concrete enters boots or gloves, or saturates clothing, the article should be removed immediately and washed before further use.

Refer to Section 8 for guidance on personal protection.

Storage
Ready-mixed concrete is normally used upon receipt. However, the hardening process of ready-mixed concrete can be delayed by the use of additions and/ or admixtures, extending the period during which the precautions given in this data sheet should continue to be taken and during which time access by unauthorised persons should be prevented.
Refer to the relevant Technical Data Sheet for the specific product.

8. Exposure Controls / Personal Protection

Take Measures to Prevent
a) Direct skin or eye contact with fresh concrete. It is also important not to kneel or sit on the fresh concrete as harmful contact can occur through saturated clothing.
b) Inhalation of dust created by the surface treatment and cutting of hardened concrete which may contain quartz. If inhaled in excessive quantities over an extended period, respirable dust containing quartz can constitute a long term health hazard.

Exposure Control Limits / Source

Total Dust -	W.E.L.	10mg/m^3	8 Hrs	T.W.A.
Respirable Dust -	W.E.L.	4mg/m^3	8 Hrs	T.W.A
Respirable Quartz Crystalline Silica SiO_2	W.E.L.	0.1mg/m^3	8 Hrs	T.W.A

W.E.L. = Workplace Exposure Limit
T.W.A. = Time Weighted Average

Inhalation
Avoid breathing dust.

Eyes, Skin & Hands
S24/25 - Avoid contact with skin and eyes.
S36/ 37/ 39 - Wear suitable protective clothing, gloves and eye / face protection.

Control Measures
Dust caused by cutting or drilling hardened concrete should be controlled by containment, suppression and extraction/ filtration where possible.

Respiratory Protection
Suitable respiratory protection should be used to protect against inhalation of dust, and to ensure exposure is below the Workplace Exposure Levels given at the start of this section.



Hand Protection:
Impermeable gloves should be worn.



Eye Protection:
Goggles should be worn if there is a risk of product entering the eyes (including dust).



Skin Protection:
Overalls and/or long-sleeved jackets and full length trousers should be worn to protect skin from contact with wet concrete. Outer clothing should be waterproof if contact with wet concrete is likely. Wear impermeable boots to protect feet. Safety wellington boots should be worn If working with wet concrete, with waterproof trousers pulled over them to help prevent concrete entering the boots. If concrete saturates clothing, or enters gloves or boots, remove the articles immediately and wash before wearing again. In addition to the above, the use of skin barrier cream and aftercare products is also recommended.





9. Physical and Chemical Properties

Appearance:	Grey, granular paste unless pigmented.
Odour:	Slight, earthy odour
pH:	Typically 10-14
Boiling Point / Range:	Not determined
Melting Point / Range:	Not determined
Flash Point:	Not applicable
Auto Flammability:	Not applicable
Flammability:	Not applicable
Explosive Properties:	Not applicable
Oxidising Properties:	Not applicable
Vapour Pressure:	Not applicable
Relative Density:	Above 2.0
Water Solubility:	Dependant on aggregate type
Fat Solubility:	Not determined

10. Stability and Reactivity

Conditions to Avoid: None **Materials to Avoid:** None

Hazardous Decomposition Products: None

11. Toxicological Information

Inhalation:
If inhaled over a prolonged or extended period, respirable dust from drilling or cutting hardened concrete can lead to respiratory system damage and disease. Respirable crystalline silica has been associated with the lung disease silicosis.

Skin Contact:
Skin contact with wet concrete could result in serious alkali burns. Contact with concrete may also cause skin disease by the combination of the wetness, alkalinity and abrasiveness of the ready-mixed concrete. Allergic contact dermatitis may be caused by individual sensitivity to chromium compounds which may occur in cement.

Eye Contact:
Wet concrete in contact with eyes can cause irritation, inflammation or serious alkali burns, which may lead to blindness.

Ingestion:
Ingestion is very unlikely. Ingestion of large amounts may cause irritation of the stomach and intestines. Seek medical attention.

12. Ecological Information

Environmental Assessment:
When used and disposed of as intended, no adverse environmental effects are foreseen, and concrete should not pose a significant ecological hazard.
Prevent wet concrete entering watercourses, ditches & drains.

13. Disposal Consideration

Safe Handling of Residues / Waste Product:
Hardened concrete is classed as non hazardous and 'inert' but should be disposed of in accordance with local and national legal requirements. Hardened concrete can be readily recycled.

14. Transport Information

Special Carriage Requirements:
None – not classified as dangerous for transport.

15. Regulatory Information

Classification: **Irritant**



Risk Phrases:
R34 - May cause burns.
R38 - Irritating to the skin.
R41 - Risk of serious damage to the eyes.
R43 - May cause sensitisation by skin contact.

Safety Phrases:
S2 – Keep out of reach of children.
S24/25 - Avoid contact with skin and eyes.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/ 37/ 39 - Wear suitable protective clothing, gloves and eye / face protection.

16. Other Information

Training Advice:
Wear and use of PPE.

Recommended Uses and Applications:
Industrial and construction applications.

Further Information:
Contact: enquiries@breedongroup.com

Key Data Used to Compile Data Sheet:
HSE Guidance Note EH40/2007
PPE Regulations 1992
COSHH Regulations 2002
Environmental Protection Act 1990
HSE Crystalline Silica EH59

Further copies of this Safety Data Sheet may be obtained on request.

Prepared in accordance with Annex II of the REACH Regulation (EC) 1907/2006

Legal Notice
The information in this Safety Data Sheet was believed to be correct at the time of issue. However, no warranty is made or implied as to the accuracy or completeness of this information.
If you have purchased this product for supply to a third party for use at work, it is your duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. If you are an employer, it is your duty to tell your employees and others who may be affected of any hazards described in this sheet and any of the precautions which should be taken.
This Safety Data Sheet does not constitute the user's own assessment of workplace risk. It is the user's sole responsibility to take all necessary precautions when using this product.

SAFETY DATA SHEET

TRENT BIO MOULD 35

Compilation date: 20/02/2019

Revision No: 3

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: TRENT BIO MOULD 35

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of substance / mixture: Concrete Release Agent.

1.3. Details of the supplier of the safety data sheet

Company name: Trent Oil Lubricants Ltd
Phoenix House
Kemmel Road
Bulwell
Nottingham
NG6 9FH
United Kingdom
Tel: +44 (0) 115 927 9166
Fax: +44 (0) 115 927 9982
Email: sales@trentoil.co.uk

1.4. Emergency telephone number

Emergency tel: +44 (0) 115 927 9166
(office hours only)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Aquatic Chronic 4: H413; Asp. Tox. 1: H304

Most important adverse effects: May be fatal if swallowed and enters airways. May cause long lasting harmful effects to aquatic life.

2.2. Label elements

Label elements:

Hazard statements: H304: May be fatal if swallowed and enters airways.
H413: May cause long lasting harmful effects to aquatic life.

Hazard pictograms: GHS08: Health hazard



Signal words: Danger

Precautionary statements: P273: Avoid release to the environment.

[cont...]

P301+310: IF SWALLOWED: Immediately call a physician.

P331: Do NOT induce vomiting.

P405: Store locked up.

P501: Dispose of contents/container to hazardous or special waste collection point.

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

HYDROCARBONS, C16-C20, N-ALKANES, ISOALKANES, CYCLICS, AROMATICS (2-30%) - REACH registered number(s): 01-2119455996-19-0001

EINECS	CAS	PBT / WEL	CLP Classification	Percent
919-006-8	-	-	Asp. Tox. 1: H304; Aquatic Chronic 4: H413	>90%

Non-classified ingredients:

MIXTURE OF UNSATURATED FATTY ACIDS

EINECS	CAS	PBT / WEL	CLP Classification	Percent
263-107-3	61790-12-3	-	-	1-10%

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Wash immediately with plenty of soap and water.

Eye contact: Bathe the eye with running water for 15 minutes.

Ingestion: Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Transfer to hospital as soon as possible.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed

Skin contact: There may be mild irritation at the site of contact.

Eye contact: There may be irritation and redness.

Ingestion: There may be soreness and redness of the mouth and throat. There may be difficulty swallowing. Nausea and stomach pain may occur. There may be vomiting.

Inhalation: Absorption through the lungs can occur causing symptoms similar to those of ingestion.

4.3. Indication of any immediate medical attention and special treatment needed

Immediate / special treatment: Not applicable.

[cont...]

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS. Refer to section 13 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid the formation or spread of mists in the air. Avoid direct contact with the substance.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits: No data available.

[cont...]

DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Respiratory protection not required.

Hand protection: Protective gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Colourless

Odour: Characteristic odour

Evaporation rate: No data available.

Oxidising: No data available.

Solubility in water: Insoluble

Kinematic viscosity: 5.5

Viscosity test method: Kinematic viscosity in 10-6 m2/s at 40°C (ISO 3104/3105)

Boiling point/range°C: No data available.

Melting point/range°C: No data available.

Flammability limits %: lower: No data available.

upper: No data available.

Flash point°C: 130

Part.coeff. n-octanol/water: No data available.

Autoflammability°C: No data available.

Vapour pressure: No data available.

Relative density: 0.818

pH: No data available.

VOC g/l: No data available.

9.2. Other information

Other information: Not applicable.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may occur on exposure to conditions or materials listed below.

[cont...]

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Non-classified ingredients:

MIXTURE OF UNSATURATED FATTY ACIDS

ORAL	RAT	LD50	>7000	mg/kg

Relevant hazards for product:

Hazard	Route	Basis
Aspiration hazard	-	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: There may be mild irritation at the site of contact.

Eye contact: There may be irritation and redness.

Ingestion: There may be soreness and redness of the mouth and throat. There may be difficulty swallowing. Nausea and stomach pain may occur. There may be vomiting.

Inhalation: Absorption through the lungs can occur causing symptoms similar to those of ingestion.

Section 12: Ecological information

12.1. Toxicity

Hazardous ingredients:

HYDROCARBONS, C16-C20, N-ALKANES, ISOALKANES, CYCLICS, AROMATICS (2-30%)

Activated Sludge	5 minute EC0	>1000	mg/l
Daphnia magna	48H EC0	>1000	mg/l
Daphnia magna	EC50 21 DAYS	5000	mg/l
GREEN ALGA (Selenastrum capricornutum)	72H EC50	1000	mg/l
RAINBOW TROUT (Oncorhynchus mykiss)	96H LC0	>1000	mg/l
ZEBRAFISH (Brachydanio rerio)	21 DAYS NOELR	5000	mg/l

[cont...]

MIXTURE OF UNSATURATED FATTY ACIDS

FISH	48H LC50	>10000	mg/l
Pseudomonas putida	16H EC50	>10000	mg/l

12.2. Persistence and degradability

Persistence and degradability: This product is inherently biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available.

12.4. Mobility in soil

Mobility: No data available.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: No data available.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

Transport class: This product does not require a classification for transport.

Section 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Specific regulations: Not applicable.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.

* indicates text in the SDS which has changed since the last revision.

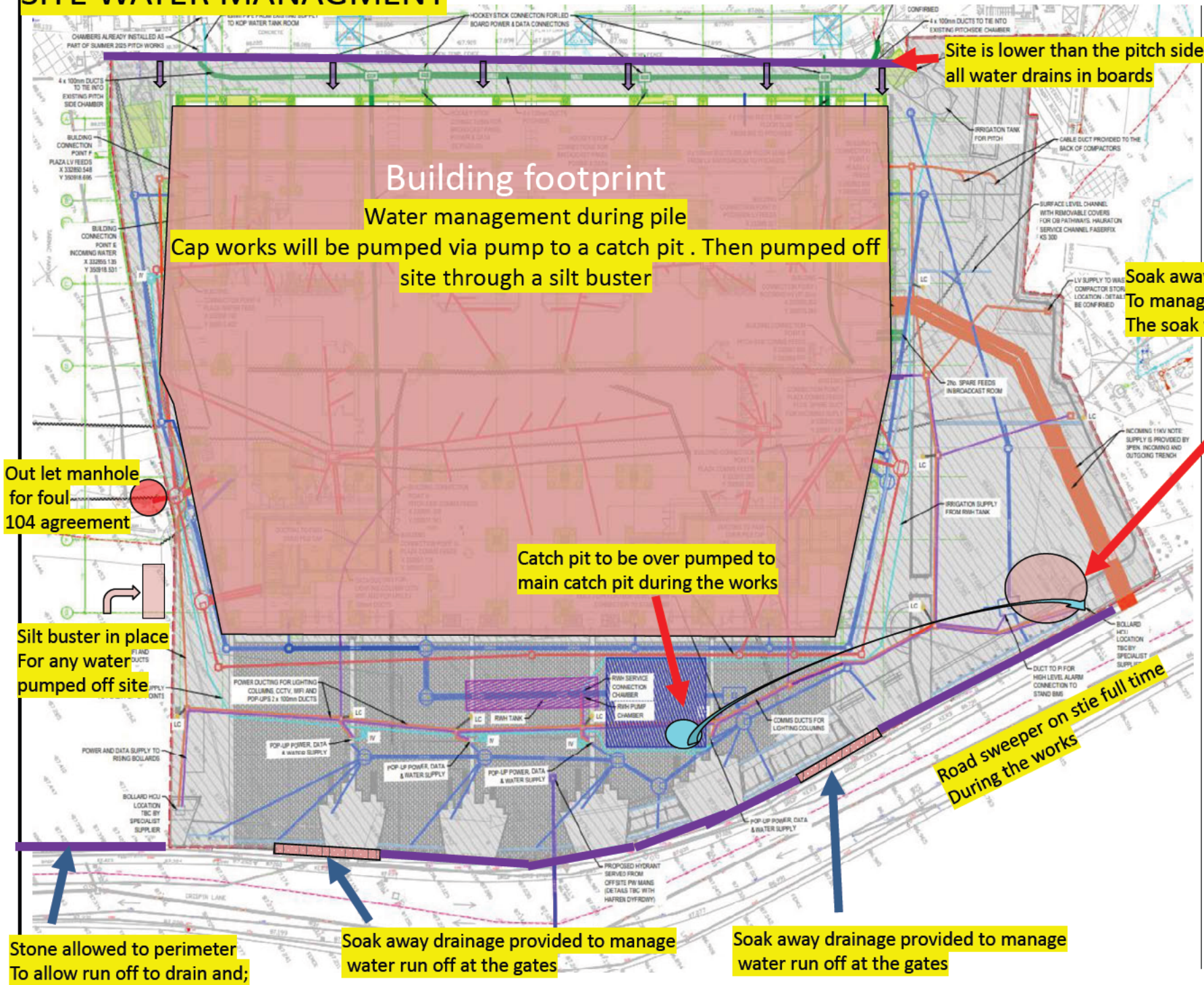
Phrases used in s.2 and s.3: H304: May be fatal if swallowed and enters airways.

H413: May cause long lasting harmful effects to aquatic life.

[cont...]

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

SITE WATER MANAGMENT



Project Title:

Drawing Title:

Client:

Scale:

Date:

Drg No:

McLaren Construction (Midlands & North) Ltd
McLaren House, 6090 Knights Court,
Birmingham, B37 7WY

Tel +44 (0)121 770 8288
Fax +44 (0)121 779 3974
E enquiries@mclarengroup.com

www.mclarengroup.com

Information Classification: Public

Appendix B Site Inspection notes

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The People's Project
Verification site visit proforma

BURO HAPPOLD

Name	Robin Hilderman	**Date and time**	09/10/2025
Project No	0065004	**Visit Ref No**	Visit 1
Weather	Clear sky, mild		

WORKS ON SITE

Personnel / Contractors involved

Mark Standeven – McLaren

Nina Sopp – Buro Happold

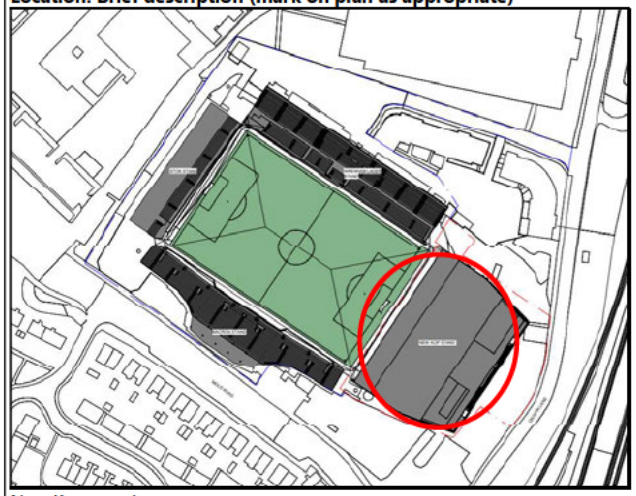
Robin Hilderman - Buro Happold

Description of works / activities *[Inc. any work outside / contravening Method Statements]*

Witnessed excavation of material comprising demolition waste and natural soil. Earthworks enabling works to reach the piling platform level. Excavated material to be used for capping layer following ground improvement by soil-concrete stabilisation.

Witnessed loading of excavated material into a truck for export. Material leaving site in a truck was using dust suppression by wetting the roads.

Location: Brief description (mark on plan as appropriate)



New Kop stand.

Location, volume and nature of excavation / soils encountered / removed

RH witnessed uncontaminated demolition waste and natural soils with some weeds during excavation. Requested that McLaren notify BH if Made Ground / contamination is encountered.

Destination of soils removed from site *[Inc. comment on WTNs]*

NS requested WTN from soils that have been removed from site.

The People's Project
Verification site visit proforma

BURO HAPPOLD

Location, volume and nature of imported soil materials

Imported soils is not anticipated.

Notable / unexpected contamination encountered

N/A

Analytical data *[in-situ / imported / exported soils]*

N/A

Groundwater *[Encountered / condition / control / disposal]*

N/A

Below ground infrastructure *[Concrete / pipework etc.]*

N/A

Environmental issues (e.g. dust, groundwater etc.)

N/A

Additional Information / Comments *[Continued overleaf as appropriate]*

BH provided a verification checklist McLaren.

Photographs



Photograph 1- Excavation material being loaded for export.



Photograph 2- Piling level and stockpile of excavated, non-contaminated, demolition waste and natural soils.

The People's Project
Verification site visit proforma

BURO HAPPOLD

Name	Robin Hilderman	**Date and time**	23/10/2025
Project No	0065004	**Visit Ref No**	Visit 2
Weather	Cloudy, windy, raining		

WORKS ON SITE

Personnel / Contractors involved

Mark Standeven – McLaren

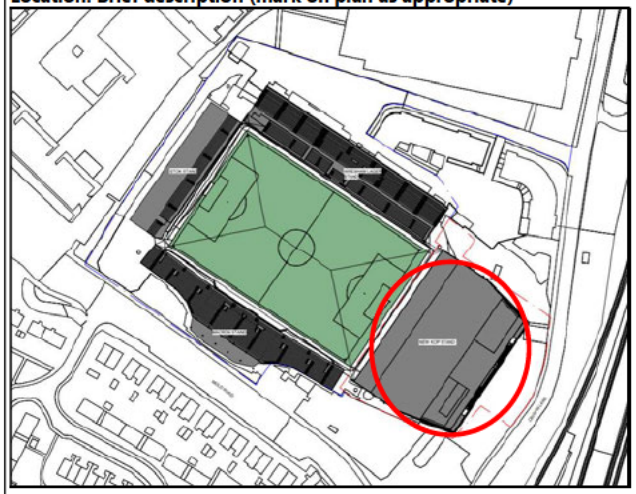
Robin Hilderman - Buro Happold

Description of works / activities *[Inc. any work outside / contravening Method Statements]*

Witnessed movement of excavated material comprising demolition waste and natural soil for enabling ground improvement works. Ground improvement by soil-concrete stabilisation in process for the piling capping layer.

Piling to begin November 10th.

Location: Brief description (mark on plan as appropriate)



New Kop stand.

Location, volume and nature of excavation / soils encountered / removed

RH witnessed excavated uncontaminated demolition waste and natural soils and broken out hard standing that is awaiting removal. Requested that McLaren notify BH if Made Ground / contamination is encountered.

Destination of soils removed from site *[Inc. comment on WTNs]*

RH requested WTN from soils that have been removed from site.

Location, volume and nature of imported soil materials

Imported soils is not anticipated.

Notable / unexpected contamination encountered

N/A

Analytical data ***[in-situ / imported / exported soils]***

N/A

Groundwater ***[Encountered / condition / control / disposal]***

N/A

Below ground infrastructure ***[Concrete / pipework etc.]***

N/A

Environmental issues (e.g. dust, groundwater etc.)

N/A

Additional Information / Comments ***[Continued overleaf as appropriate]***

BH provided a verification checklist McLaren.

Photographs



Photograph 1- Excavated material of the capping layer being moved for ground improvement.

The People's Project
Verification site visit proforma

BURO HAPPOLD

Name	Robin Hilderman	**Date and time**	13/11/2025
Project No	0065004	**Visit Ref No**	Visit 3
Weather	Dry, clear, slightly cloudy		

WORKS ON SITE

Personnel / Contractors involved

Mark Standeven – McLaren

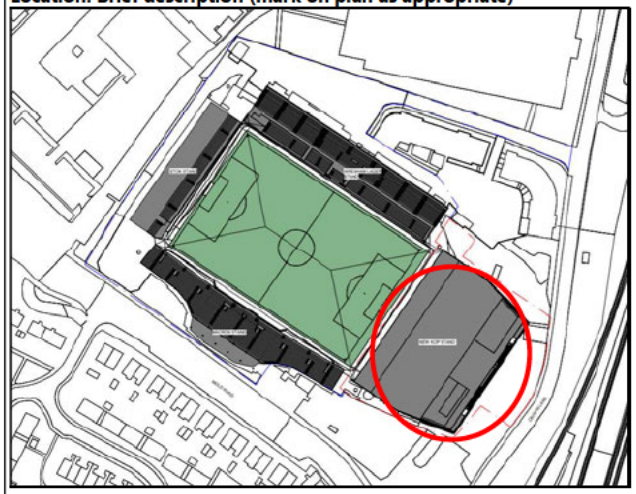
Robin Hilderman - Buro Happold

Description of works / activities *[Inc. any work outside / contravening Method Statements]*

Witnessed movement of excavated material comprising demolition waste and natural soil for enabling ground improvement works. Ground improvement by soil-concrete stabilisation in process for the piling capping layer.

Piling was delayed and now to begin November 17th.

Location: Brief description (mark on plan as appropriate)



New Kop stand.

Location, volume and nature of excavation / soils encountered / removed

RH witnessed excavated uncontaminated demolition waste and natural soils and broken out hard standing that is awaiting removal. Requested that McLaren notify BH if Made Ground / contamination is encountered.

Destination of soils removed from site *[Inc. comment on WTNs]*

RH requested WTN from soils that have been removed from site.

Location, volume and nature of imported soil materials

RH requested testing for 6f2 imports.

Notable / unexpected contamination encountered

Received RH requested photos taken during removal of ACM.

Analytical data *[in-situ / imported / exported soils]*

N/A

Groundwater *[Encountered / condition / control / disposal]*

N/A

Below ground infrastructure *[Concrete / pipework etc.]*

N/A

Environmental issues (e.g. dust, groundwater etc.)

N/A

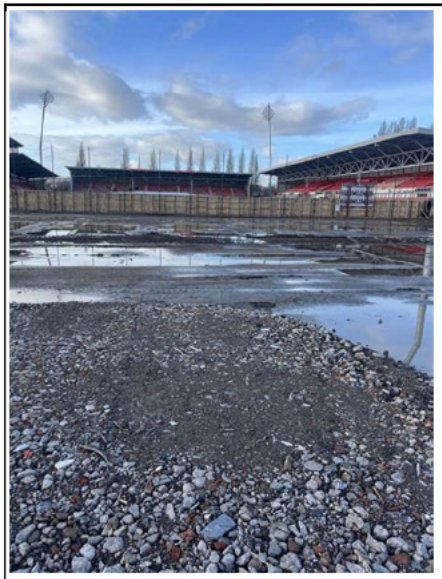
Additional Information / Comments *[Continued overleaf as appropriate]*

BH provided a verification checklist McLaren.

Photographs



Photograph 1- Ground improvement completed and awaiting piling.



Photograph 2 – Imported 6f5 material.



Photograph 2 - Gound improvement by soil-concrete stabilisation (light tan material) in process.

The People's Project
Verification site visit proforma

BURO HAPPOLD

Name	Robin Hilderman	**Date and time**	27/11/2025
Project No	0065004	**Visit Ref No**	Visit 4
Weather	Dry, clear		

WORKS ON SITE

Personnel / Contractors involved

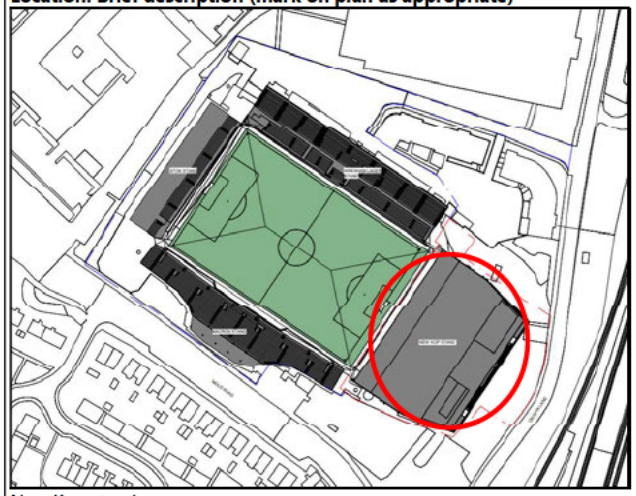
Mark Standeven – McLaren

Robin Hilderman - Buro Happold

Description of works / activities *[Inc. any work outside / contravening Method Statements]*

Piling rig is on site and piling is in process.

Location: Brief description (mark on plan as appropriate)



New Kop stand.

Location, volume and nature of excavation / soils encountered / removed

RH witnessed stockpile of pile arising comprising natural soils that is awaiting removal. Piling arising being removed on Monday, Wednesday, and Friday weekly in trucks with ~89 m^3 load capacity. Requested that McLaren notify BH if Made Ground / contamination is encountered.

Destination of soils removed from site *[Inc. comment on WTNs]*

RH requested WTN from soils that have been removed from site.

Location, volume and nature of imported soil materials

RH requested testing for 6f2 imports.

Notable / unexpected contamination encountered

N/A

Analytical data ***[in-situ / imported / exported soils]***

N/A

Groundwater ***[Encountered / condition / control / disposal]***

N/A

Below ground infrastructure ***[Concrete / pipework etc.]***

N/A

Environmental issues (e.g. dust, groundwater etc.)

N/A

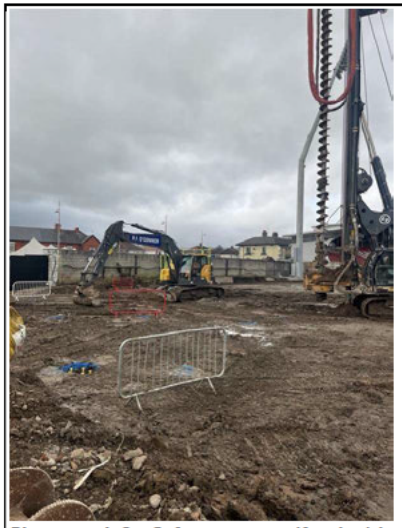
Additional Information / Comments ***[Continued overleaf as appropriate]***

BH provided a verification checklist McLaren.

Photographs



Photograph 1- Piling rig on site and piling is in process.



Photograph 2 – Safety measure (fencing) in place to indicate location of pile.



Photograph 3 – Stock pile of piling arising comprising natural strata.

The People's Project
Verification site visit proforma

BURO HAPPOLD

Name	Robin Hilderman	**Date and time**	22/01/2026
Project No	0065004	**Visit Ref No**	Visit 5
Weather	Raining, cloudy		

WORKS ON SITE

Personnel / Contractors involved

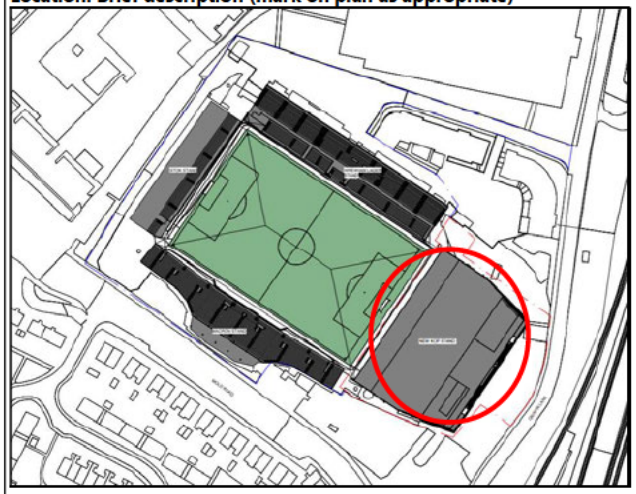
Mark Standeven – McLaren

Robin Hilderman - Buro Happold

Description of works / activities *[Inc. any work outside / contravening Method Statements]*

Substructure being constructed, including pouring concrete and placing rebar cages around trimmed piles. Piling rig is on site and piling is in process until the end of January. Muckway of excess material to keep site clean.

Location: Brief description (mark on plan as appropriate)



New Kop stand.

Location, volume and nature of excavation / soils encountered / removed

RH witnessed stockpiles of pile arising and excavated material comprising natural soils that are awaiting removal. Requested that McLaren notify BH if Made Ground / contamination is encountered.

Destination of soils removed from site *[Inc. comment on WTNs]*

RH requested WTN from soils that have been removed from site.

Location, volume and nature of imported soil materials

Free draining material imported (60 tonnes). RH requested testing for 6f2 imports.

Notable / unexpected contamination encountered

N/A

Analytical data ***[in-situ / imported / exported soils]***

N/A

Groundwater ***[Encountered / condition / control / disposal]***

N/A

Below ground infrastructure ***[Concrete / pipework etc.]***

N/A

Environmental issues (e.g. dust, groundwater etc.)

N/A

Additional Information / Comments ***[Continued overleaf as appropriate]***

Surface water being discharged into fowl water sewer. BH to be provided with the site waste management plant detailing surface water discharge. BH provided a verification checklist McLaren.

Photographs



Photograph 1- Piling rig on site and piling is in process. Piles that have been trimmed. Excavation stockpile awaiting removal.



Photograph 2 – Rebar cage being place on trimmed piles that have undergone integrity testing.



Photograph 3 – Stock pile of excavated material (left) and piling arising (right) comprising natural strata.

Appendix C Soil disposal

C.1 Chemical data

C.2 Consigner Note

C.3 Consignment Note

C.4 Waste Transfer Notes

C.5 Carrier Registration

C.6 Environmental Permit

C.7 Landfill License

C.8 McLaren SMARTWASTE reports

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envirolab
Hattersley Science & Technology Park
Stockport Road, Hattersley, SK14 3QU

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 25/12177
Issue Number: 1 **Date:** 27 October, 2025

Client:
PP O'Connor Ltd
61 Mosley Road
Trafford Park
Manchester
M17 1GJ

Project Manager: Tony Barry
Project Name: Wrexham AFC
Project Ref: N/A
Order No: M-C0677/000012.
Date Samples Received: 24/10/25
Date Instructions Received: 27/10/25
Date Analysis Completed: 27/10/25

Approved by:



Maleyka Owen-Agjef
Client Manager

UKAS TESTING
1247

Envirolab Job Number: 25/12177

Client Project Name: Wrexham AFC

Client Project Ref: N/A

Lab Sample ID	25/12177/1	25/12177/2	25/12177/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	Small	Medium	Large							
Depth to Top										
Depth To Bottom										
Date Sampled	24-Oct-25	24-Oct-25	24-Oct-25							
Sample Type	SOLID - BULK	SOLID - BULK	SOLID - BULK							
Sample Matrix Code	8	8	8							
Bulk Fibre ID (inc. matrix)										
Bulk Fibre Identification$_D$*	Chrysotile	Chrysotile	Chrysotile							A-T-046
Bulk Fibre Identification Matrix (visual)$_D$	Cement	Cement	Cement							A-T-046
Bulk Fibre Identification - Suitable for Water Absorption Test?$_D$	Yes	Yes	Yes							A-T-046

Report Notes

General

•This report shall not be reproduced, except in full, without written approval from Envirolab.
•The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client and can affect the validity of results.
•The results reported herein relate only to the material supplied to the laboratory.
•The residue of any samples contained within this report, and any received within the same delivery, will be disposed of **four weeks** after the initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of **six months** after the initial Asbestos testing is completed.
•Analytical results reflect the quality of the sample at the time of analysis only.
•Opinions and Interpretations expressed are outside our scope of accreditation.
•A deviating sample report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
•If a sample is outside of the calibration range or affected by interferences then it may need diluting. This will result in the limit of detection (LOD) being raised.
•Subcontracted Analysis: Please see the appended report for any deviations, current LODs and accreditation status of the test.

Key

Superscript "#"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "D" on Asbestos	Analysis performed on a dried aliquot of sample provided.
Subscript "^"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
Trace	Asbestos found not suitable for Gravimetric Quantification – not enough to accurately weigh.
N/A	Not applicable

Asbestos

Identification: Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis
"Trace Asbestos Identified" will be reported if there is not enough present to verify the type.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs
Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.					

Soil Chemical Analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH by method A-T-007:
For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:
EPH CWG results have humics mathematically subtracted through instrument calculation.
Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:
Results greater than 12900µS/cm @ 25^0C / 11550µS/cm @ 20^0C fall outside the calibration range and as such are unaccredited.

Please contact your client manager if you require any further information.

Envirolab Deviating Samples Report

Hattersley Science & Technology Park, Stockport Road, Hattersley, SK14 3QU
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: PP O'Connor Ltd, 61 Mosley Road, Trafford Park, Manchester, M17 1GJ

Project No: 25/12177

Date Received: 27/10/2025 (am)

Project: Wrexham AFC

Cool Box Temperatures (°C): 15.1

Clients Project No: N/A

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	25/12177/1	25/12177/2	25/12177/3
Client Sample No			
Client Sample ID/Depth	Small	Medium	Large
Date Sampled	24/10/25	24/10/25	24/10/25
A-T-045	27/10/2025	27/10/2025	27/10/2025

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

THOR (1)

WREXHAM

180627

FCC Environment

6 Sidings Court
White Rose Way
Doncaster
DN4 5NU
Tel: 01302303030
Fax: 01302303092

Customer
Provectus Soils Management Limited
Regent House
Bath Avenue
Wolverhampton
West Midlands
WV1 4EG

Customer Account Number DPROV2
Customer Order Number
Waste Carrier's Reg No CBDU101751

Site
Maw Green Soil Treatment - Tel:

Ticket No 33418209
Enquiry No 2253525
Site No 1243
Landfill Tax Not Applicable
Vehicle Reg MK21BZX
Round Number
Transfer Note PPWREX/29104
Source Trade

Waste Description
TPH impacted soil with asbestos for treatm
ent ex Wrexham FC , Mold Road, Wrexham, LL
11 2AH as per in

Comments

Time	Tally	Weight(kg)
30-Oct-2025 10:49:14	150418	44280
30-Oct-2025 10:49:15	1594C	
Nett Weight		28340

VAT No.: 637 8808 92
LFT No.: 01675 2920 15000
Operator's Signature

Ticket 33418209 - 30-Oct-2025 10:49

Driver's Signature

Ticket 33418209 - 30-Oct-2025 10:49

DW2253525 C0677

Form HWCN01v112

The Hazardous Waste Regulations 2005: Consignment Note

180627

Environment Agency

PRODUCER'S/HOLDER'S/CONSIGNOR'S COPY (Delete as appropriate)

PART A Notification details

1 Consignment note code: PPWFEX291004

2 The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile):
WREXHAM AIC, HFORDD, MOLD ROAD, MOLD, WREXHAM, LL11 2AH
Mark.Standeven@clarengroup.com
+442038958216

3 The waste will be taken to (name, address and postcode):
PROVECTUS SOILS MANAGEMENT, MAW GREEN ROAD, CREWE, CW1 5NG

4 The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile):
MCLAREN CONSTRUCTION GROUP PLC, 11TH FLOOR, CHEROUN ROAD, CANARY WHARF, LONDON, E14 5RS

PART B Description of the waste

If continuation sheet used, tick here

1 The process giving rise to the waste(s) was: EXCAVATION

2 SIC (2007) for the process giving rise to the waste: 82 990

3 WASTE DETAILS (where more than one waste type is collected all of the information given below must be completed for each EWC identified)

Description of waste	List of wastes (EWC code) 6 digits	Quantity (kg)	The chemical/biological components in the waste and their concentrations are: Component	Concentration (% or mg/kg)	Physical form (gas, liquid, solid, powder, sludge or mixed)	Hazard code(s)	Container type, number and size
Haz Soil & Stones	170503	30000	ASBESTOS	> 0.1%	SOLID	HP5 HP8 HP7	BULK

The information given below is to be completed for each EWC identified

EWC code	UN identification number(s)	Proper shipping name(s)	UN class(es)	Packing group(s)	Special handling requirements
170503	N/A	N/A	N/A	N/A	PPE.

PART C Carrier's certificate

(If more than one carrier is used, please attach schedule for subsequent carriers. If schedule of carriers is attached tick here. ☐)

I certify that I today collected the consignment and that the details in A2, A3 and B3 are correct and I have been advised of any specific handling requirements.

Where this note comprises part of a multiple collection the round number and collection number are:

1 Carrier name: PP O'CONNOR

On behalf of (name, address, postcode, telephone, e-mail, facsimile):
61 MOSLEY ROAD, TRAFFORD PARK, MANCHESTER, M17 1GJ

2 Carrier registration no./reason for exemption: CBDU101751

3 Vehicle registration no. (or mode of transport, if not road):

Signature: LIAM RYAN MK21 BZX

Date: 30 10 25 Time: 10:00

PART D Consignor's certificate

I certify that the information in A, B and C has been completed and is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

1 Consignor name: TONY BARRY

On behalf of (name, address, postcode, telephone, e-mail, facsimile): AS C1
tony.barry@pporourke.co.uk 07584 162291

Signature:

Date: 28 10 2025 Time: 08:00

PART E Consignee's certificate (where more than one waste type is collected all of the information given below must be completed for each EWC)

Individual EWC code(s) received	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste management operation (R or D code)
170503	28340	ACC	R05

1 I received this waste at the address given in A3 on: Date 30 10 2025 Time 10:54

2 Vehicle registration no. (or mode of transport if not road): MK21 BZX

3 Where waste is rejected please provide details:

I certify that waste described in this consignment note is operation number: BS7922ID authorises the management of the waste described in B at the address given in A3.

Where the consignment forms part of a multiple collection, as identified in Part C, I certify that the total number of consignments forming the collection are:

Name: A. STOCKTON
On behalf of (name, address, postcode, telephone, e-mail, facsimile):
Provectus Soils Management
Maw Green Soil Treatment Centre
Maw Green Road
Crewe CW1 5NG

Signature:

Date: 30 10 2025 Time: 10:54

Form HWCN01v112

The Hazardous Waste Regulations 2005: Consignment Note

Environment Agency

PRODUCER'S/HOLDER'S/CONSIGNOR'S COPY (Delete as appropriate)

PART A Notification details

1 Consignment note code: PPWREX 29104

2 The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile):
WREXHAM AIC, FFORDD, Maw Road, Nantwich, Cheshire, CW5 8AH
Mark.Saunderson@mclaren.com
+44 203 893 3821

3 The waste will be taken to (name, address and postcode):
Proactis Soils Management, Maw Green Road, Crewe, CW1 5NG

4 The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile):
McLaren Construction Group Ltd, 11th Floor, 20 Canada Place, Canary Wharf, London, E14 5NT

PART B Description of the waste

If continuation sheet used, tick here ☐

1 The process giving rise to the waste(s) was: EXCAVATION

2 SIC (2007) for the process giving rise to the waste: 82 990

3 WASTE DETAILS (where more than one waste type is collected all of the information given below must be completed for each EWC identified)

Description of waste	List of wastes (EWC code), 6 digit(s)	Quantity (kg)	The chemical/biological components in the waste and their concentrations are: Component	Concentration (% or mg/kg)	Physical form (gas, liquid, solid, powder, sludge or mixed)	Hazard code(s)	Container type, number and size
Mix Soil & Stones	17 05 03	30000	Asbestos	> 0.1%	Solid	HP5 & HP7	Bulk

The information given below is to be completed for each EWC identified

EWC code	UN identification number(s)	Proper shipping name(s)	UN class(es)	Packing group(s)	Special handling requirements
17 05 03	N/A	N/A	N/A	N/A	PPE.

PART C Carrier's certificate

(If more than one carrier is used, please attach schedule for subsequent carriers. If schedule of carriers is attached tick here. ☐)

I certify that I today collected the consignment and that the details in A2, A3 and B3 are correct and I have been advised of any specific handling requirements.

Where this note comprises part of a multiple collection the round number and collection number are:

1 Carrier name: PPO Towns

On behalf of (name, address, postcode, telephone, e-mail, facsimile):
61 Mosley Road, Trafford Park, Manchester, M17 1GJ

2 Carrier registration no./reason for exemption: CBDU101751

3 Vehicle registration no. (or mode of transport, if not road): MK21 BZX

Signature: Liam Ryan

Date: 30/10/25 Time:

PART D Consignor's certificate

I certify that the information in A, B and C has been completed and is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

1 Consignor name: TONY BARRY

On behalf of (name, address, postcode, telephone, e-mail, facsimile): As C1
tony.barry@ppoconnor.co.uk
07384 162291

Signature: TB

Date: 28/10/2025 Time: 0800

PART E Consignee's certificate (where more than one waste type is collected all of the information given below must be completed for each EWC)

Individual EWC code(s) received	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste management operation (R or D code)
170503	28340	ACC	R05

1 I received this waste at the address given in A3 on: Date 30/10/2025 Time 1054

2 Vehicle registration no. (or mode of transport, if not road): MK21 BZX

3 Where waste is rejected please provide details:

I certify that waste permit/exemption reference number:
BS7221D
authorises the management of the waste described in B as the address given in A3.

Where the consignment forms part of a multiple collection as identified in Part C, I certify that the total number of consignments forming the collection are:

Name: A. Stollon

On behalf of (name, address, postcode, telephone, e-mail, facsimile): Proactis Soils Management
Maw Green Soil Treatment Centre
Maw Green Road
Crewe CW1 5NG

Signature:

Date: 30/10/2025 Time: 1054

HWCN01v112

FCC Environment

5 Stirling Court
White Rose Way
Doncaster
DN4 5NU
Tel: 01302303030
Fax: 01302303092

Customer
Provectus Soils Management Limited
Regent House
Bath Avenue
Wolverhampton
West Midlands
WV1 4EG

180615

Customer Account Number DPROV2
Customer Order Number
Waste Carrier's Reg No CBDU101751

Site
Maw Green Soil Treatment - Tel:

Ticket No 33417450
Enquiry No 2253525
Site No 1243
Landfill Tax Not Applicable
Vehicle Reg MV24WLA
Round Number
Transfer Note PPWREX/29102
Source Trade

Waste Description
TPH impacted soil with asbestos for treatm
ent ex Wrexham FC , Mold Road, Wrexham, LL
11 2AH as per in

Comments

Time	Tally	Weight(kg)
30-Oct-2025 09:08:08	150405	44220
30-Oct-2025 09:26:21	150407	16200
Nett Weight		28020

VAT No.: 637 8808 92
LFT No.: 01675 2920 15000
Operator's Signature

Ticket 33417450 - 30-Oct-2025 09:27

Driver's Signature

Ticket 33417450 - 30-Oct-2025 09:26

It is the driver's responsibility to ensur
e that the details on this ticket are corr
ect.

C0677

Form HWCN01v112

The Hazardous Waste Regulations 2005: Consignment Note

180645

Environment Agency

PRODUCER'S/HOLDER'S/CONSIGNOR'S COPY (Delete as appropriate)

PART A Notification details

1 Consignment note code: PPWR CX 12910 2

2 The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile):
WREXHAM AIC, FFORDD, Maw Road, Maw, Wrexham, LL11 2AH
Mark.Shankland@mclennangroup.com
+44203813821b

3 The waste will be taken to (name, address and postcode):
Proyectus Soils Management, Maw Green Rd, Crewe, CW1 5NE

4 The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile):
MCLAREN CONSTRUCTION GROUP PLC, 11th Floor 20 Churchill Place, Canary Wharf, London, E14 5HJ

PART B Description of the waste

If continuation sheet used, tick here ☐

1 The process giving rise to the waste(s) was: EXCAVATION

2 SIC (2007) for the process giving rise to the waste: 82.990

3 WASTE DETAILS (where more than one waste type is collected all of the information given below must be completed for each EWC identified)

Description of waste	List of wastes (EWC code) (6 digits)	Quantity (kg)	The chemical/biological components in the waste and their concentrations are: Component	Concentration (% or mg/kg)	Physical form (gas, liquid, solid, powder, sludge or mixed)	Hazard code(s)	Container type, number and size
Mix Soil & Stones	170503	30000	ASBESTOS	> 0.1%	SOLID	HP5 HP7	8 x Skips Asbestos

The information given below is to be completed for each EWC identified

EWC code	UN identification number(s)	Proper shipping name(s)	UN class(es)	Packing group(s)	Special handling requirements
170503	N/A	N/A	N/A	N/A	PPE.

PART C Carrier's certificate

(If more than one carrier is used, please attach schedule for subsequent carriers. If schedule of carriers is attached tick here. ☐)

I certify that I today collected the consignment and that the details in A2, A3 and B3 are correct and I have been advised of any specific handling requirements.

Where this note comprises part of a multiple collection the round number and collection number are:

1 Carrier name: PPO'Connor

On behalf of (name, address, postcode, telephone, e-mail, facsimile):
61 Mosley Road, Trafford Park, Manchester, M17 1GJ

2 Carrier registration no./reason for exemption: CBDU101751

3 Vehicle registration no. (or mode of transport, if not road): MU24 WLA

Signature: M. Swift

Date: 30/10/25 Time: 0800

PART D Consignor's certificate

I certify that the information in A, B and C has been completed and is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

1 Consignor name: Tony Barry

On behalf of (name, address, postcode, telephone, e-mail, facsimile): As C1
tony.barry@pponorth.co.uk 07584 162293

Signature:

Date: 28/10/2025 Time: 08

PART E Consignee's certificate (where more than one waste type is collected all of the information given below must be completed for each EWC)

Individual EWC code(s) received	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste management operation (R or D code)
170503		ACC	R05
170605			

1 I received this waste at the address given in A3 on: Date 30/10/2025 Time 09:19

2 Vehicle registration no. (or mode of transport if not road): MV24 WLA

Name: A. Stockton

On behalf of (name, address, postcode, telephone, e-mail, facsimile):
Proyectus Soils Management
Maw Green Soil Treatment Centre
Maw Green Road
Crewe CW1 5NG

3 Where waste is rejected please provide details:

I certify that waste permit/exempt waste operation number: BS7722ID

authorises the management of the waste described in B at the address given in A3.

Where the consignment forms part of a multiple collection, as identified in Part C, I certify that the total number of consignments forming the collection are:

Signature:

Date: 30/10/2025 Time: 09:19

Form HWCN01v112

The Hazardous Waste Regulations 2005: Consignment Note

Environment Agency

PRODUCER'S/HOLDER'S/CONSIGNOR'S COPY (Delete as appropriate)

PART A Notification details

1 Consignment note code: PPWREX/29102

2 The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile):
WREXHAM AFC, RACECOURSE, MOLD ROAD, MOLD, WREXHAM, LL11 2AH
Mark.Shakeshaft@mclennangroup.com
+44 203 843827

3 The waste will be taken to (name, address and postcode):
PROJECTUS SOILS MANAGEMENT, MAW GREEN ROAD, CREWE, CW1 5NE

4 The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile):
MCLAREN CONSTRUCTION GROUP PLC, 11TH FLOOR, CHURCHILL PLACE, CANARY WHARF, LONDON, E14 5HJ

PART B Description of the waste

If continuation sheet used, tick here:

1 The process giving rise to the waste(s) was: EXCAVATION

2 SIC (2007) for the process giving rise to the waste: 42 990

3 WASTE DETAILS (where more than one waste type is collected all of the information given below must be completed for each EWC identified)

Description of waste	List of wastes (EWC code)(6 digits)	Quantity (kg)	The chemical/biological components in the waste and their concentrations are: Component	Concentration (% or mg/kg)	Physical form (gas, liquid, solid, powder, sludge or mixed)	Hazard code(s)	Container type, number and size
Haz Soil & Stones	170503	30000	ASBESTOS	> 0.1 %	SOLID	HP5 HP7	BULK

The information given below is to be completed for each EWC identified

EWC code	UN identification number(s)	Proper shipping name(s)	UN class(es)	Packing group(s)	Special handling requirements
170503	N/A	N/A	N/A	N/A	PPE.

PART C Carrier's certificate

(If more than one carrier is used, please attach schedule for subsequent carriers. If schedule of carriers is attached tick here. [ ])

I certify that I today collected the consignment and that the details in A2, A3 and B3 are correct and I have been advised of any specific handling requirements.

Where this note comprises part of a multiple collection the round number and collection number are:

1 Carrier name: P P O'CONNOR

On behalf of (name, address, postcode, telephone, e-mail, facsimile):
61 MOSLEY ROAD, TRAFFORD PARK, MANCHESTER, M17 1GJ

2 Carrier registration no./reason for exemption: CBDU101751

3 Vehicle registration no. (or mode of transport, if not road): MV24 WLA

Signature: M. SWIFT

Date: 30/10/25 Time: 08:00

PART D Consignor's certificate

I certify that the information in A, B and C has been completed and is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

1 Consignor name: TONY BARRY

On behalf of (name, address, postcode, telephone, e-mail, facsimile): AS [illegible]
tony.barry@ppoconnor.co.uk 07884 162293

Signature:

Date: 28/10/2025 Time: 08:00

PART E Consignee's certificate (where more than one waste type is collected all of the information given below must be completed for each EWC)

Individual EWC code(s) received	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste management operation (R or D code)
170903		ACC	R05
170604			

1 I received this waste at the address given in A3 on: Date 30/10/2025 Time 09:15

2 Vehicle registration no. (or mode of transport if not road): MV 24 WLA

3 Where waste is rejected please provide details:

Name: A. STOCKTON

On behalf of (name, address, postcode, telephone, e-mail, facsimile):
Projectus Soils Management
Maw Green Soil Treatment Centre
Maw Green Road
Crewe CW1 5NG

I certify that waste permit/exempt waste operation number: BS7722ID

authorises the management of the waste described in B at the address given in A3.

Where the consignment forms part of a multiple collection as identified in Part C, I certify that the total number of consignments forming the collection are:

Signature:

Date: 30/10/2025 Time: 09:15

FCC Environment

6 Sidings Court
White Rose Way
Doncaster
DN4 5NU
Tel: 01302303030
Fax: 01302503092

180757

Customer
Provectus Soils Management Limited
Regent House
Bath Avenue
Wolverhampton
West Midlands
WV1 4EG

Customer Account Number DPROV2
Customer Order Number
Waste Carrier's Reg No CBDU101751

Site
Maw Green Soil Treatment - Tel:

Ticket No 33417601
Enquiry No 2253525
Site No 1243
Landfill Tax Not Applicable
Vehicle Reg MK21CBU
Round Number
Transfer Note PPWREX/29120
Source Trace

Waste Description
TPH impacted soil with asbestos for treatm
ent ex Wrexham FC , Mold Road, Wrexham, LL
11 2AH as per in

Comments
OVERWEIGHT

Time	Tally	Weight(kg)
30-Oct-2025 09:31:35	150408	45260
30-Oct-2025 09:46:33	150410	15920
Nett Weight		29340

VAT No.: 637 8808 92
LFT No.: 01675 2920 15000
Operator s Signature

Ticket 33417601 - 30-Oct-2025 09:46

Driver's Signature

Ticket 33417601 - 30-Oct-2025 09:46

It is the driver's responsibility to ensur
e that the details on this ticket are corr
ect.

C0677

Form HWCN01v112

The Hazardous Waste Regulations 2005: Consignment Note

180757

Environment Agency

PRODUCER'S/HOLDER'S/CONSIGNOR'S COPY (Delete as appropriate)

PART A Notification details

1 Consignment note code: PPWRE/29120

2 The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile):
WREYHILL AIC, HIGHAM, MOLD ROAD, MOLD, DENBIGH, LL11 2AH
Mark.Shoulder@mclaughlingroup.com
+44203893826

3 The waste will be taken to (name, address and postcode):
PROVECTUS SOILS MANAGEMENT, MAW GREEN ROAD, CREWE, CW1 5NG

4 The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile):
MCLAREN CONSTRUCTION GROUP PLC, 11TH FLOOR 20 CANADA PLACE, CANARY WHARF, LONDON, E14 5RS

PART B Description of the waste

If continuation sheet used, tick here

1 The process giving rise to the waste(s) was: EXCAVATION

2 SIC (2007) for the process giving rise to the waste: 81.990

3 WASTE DETAILS (where more than one waste type is collected all of the information given below must be completed for each EWC identified)

Description of waste	List of wastes (EWC code)(6 digits)	Quantity (kg)	The chemical/biological components in the waste and their concentrations are: Component	Concentration (% or mg/kg)	Physical form (gas, liquid, solid, powder, sludge or mixed)	Hazard code(s)	Container type, number and size
Marl Soil & Stones	170503	30000	ASBESTOS	> 0.1 %	SOLID	HP5 HP7	8 SKIPS
	170605						

The information given below is to be completed for each EWC identified

EWC code	UN identification number(s)	Proper shipping name(s)	UN class(es)	Packing group(s)	Special handling requirements
170503	N/A	N/A	N/A	N/A	PPE
170605					

PART C Carrier's certificate

(If more than one carrier is used, please attach schedule for subsequent carriers. If schedule of carriers is attached tick here. [ ])

I certify that I today collected the consignment and that the details in A2, A3 and B3 are correct and I have been advised of any specific handling requirements.

Where this note comprises part of a multiple collection the round number and collection number are:

1 Carrier name: P P O'CONNOR

On behalf of (name, address, postcode, telephone, e-mail, facsimile):
61 MOSLEY ROAD, TRAFFORD PARK, MANCHESTER, M17 1GJ

2 Carrier registration no./reason for exemption: CBDU101751

3 Vehicle registration no. (or mode of transport, if not road): MK21 CBU

Signature

Date 30/10/25 Time 09:15

PART D Consignor's certificate

I certify that the information in A, B and C has been completed and is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

1 Consignor name: TONY BARRY

On behalf of (name, address, postcode, telephone, e-mail, facsimile): AS C1
tony.barry@pponor.ie.uk 07584 162241

Signature

Date 28/10/2025 Time 08:00

PART E Consignee's certificate (where more than one waste type is collected all of the information given below must be completed for each EWC)

Individual EWC code(s) received	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste management operation (R or D code)
170503		ACC	R05
170605			

1 I received this waste at the address given in A3 on: Date 30/10/2025 Time 09:37

2 Vehicle registration no. (or mode of transport if not road): MK21 CBU

Name: A. STOCKTON

On behalf of (name, address, postcode, telephone, e-mail, facsimile): Provectus Soils Management
Maw Green Soil Treatment Centre,
Maw Green Road
Crewe CW1 5NG

3 Where waste is rejected please provide details:

I certify that waste described in B has the operation number:

BS7722ID

authorises the management of the waste described in B at the address given in A3.

Where the consignment forms part of a multiple collection, as identified in Part C, I certify that the total number of consignments forming the collection are:

Signature

Date 30/10/2025 Time 09:37

Form HWCN01v112

The Hazardous Waste Regulations 2005: Consignment Note

80757

Environment Agency

PRODUCER'S/HOLDER'S/CONSIGNOR'S COPY (Delete as appropriate)

PART A Notification details

1 Consignment note code: PPWBEX291120

2 The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile):
WREXHAM AVE, FFORDD, Mold Road, Mold, Wrexham, LL11 2AH
Mark.Standeven@mclaughlin.com
+442038938216

3 The waste will be taken to (name, address and postcode):
Projectus Soils Management, Maw Green Road, Crewe, CW1 5NE

4 The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile):
McLaren Construction Group Plc, 11th floor 20 Churchill Place, Canary Wharf, London, E14 5HJ

PART B Description of the waste

If continuation sheet used, tick here ☐

1 The process giving rise to the waste(s) was: EXCAVATION

2 SIC (2007) for the process giving rise to the waste: 82 990

3 WASTE DETAILS (where more than one waste type is collected all of the information given below must be completed for each EWC identified)

Description of waste	List of wastes (EWC code)(6 digits)	Quantity (kg)	The chemical/biological components in the waste and their concentrations are: Component	Concentration (% or mg/kg)	Physical form (gas, liquid, solid, powder, sludge or mixed)	Hazard code(s)	Container type, number and size
Mix Soil & Stones	170503	30000	Asbestos	> 0.1 %	Solid	HP11	HP5 9 Skips
	170605					HP7	Asbestos

The information given below is to be completed for each EWC identified

EWC code	UN identification number(s)	Proper shipping name(s)	UN class(es)	Packing group(s)	Special handling requirements
170503	N/A	N/A	N/A	N/A	PPE.
170605					

PART C Carrier's certificate

(If more than one carrier is used, please attach schedule for subsequent carriers. If schedule of carriers is attached tick here. ☐)

I certify that I today collected the consignment and that the details in A2, A3 and B3 are correct and I have been advised of any specific handling requirements.

Where this note comprises part of a multiple collection the round number and collection number are:

1 Carrier name: PP O'Connor

On behalf of (name, address, postcode, telephone, e-mail, facsimile):
61 Mosley Road, Trafford Park, Manchester, M17 1GJ

2 Carrier registration no./reason for exemption: CBDU10175

3 Vehicle registration no. (or mode of transport, if not road): MK21 CBU

Signature

Date 30/10/25 Time 08:15

PART D Consignor's certificate

I certify that the information in A, B and C has been completed and is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labelled, correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

1 Consignor name: Tony Barry

On behalf of (name, address, postcode, telephone, e-mail, facsimile): As C1
tony.barry@pponnor.co.uk 07584 162291

Signature

Date 28/10/2025 Time 08:00

PART E Consignee's certificate (where more than one waste type is collected all of the information given below must be completed for each EWC)

Individual EWC code(s) received	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste management operation (R or D code)
170503		ACC	R05
170605			

1 I received this waste at the address given in A3 on: Date 30/10/2025 Time 09:37

2 Vehicle registration no. (or mode of transport if not road): MK21 CBU

3 Where waste is rejected please provide details.

I certify that waste permit/exempt waste operation number:

authorises the management of the waste described in B at the address given in A3.

Where the consignment forms part of a multiple collection, as identified in Part C, I certify that the total number of consignments forming the collection are:

Name: A. Stockton

On behalf of (name, address, postcode, telephone, e-mail, facsimile):
Projectus Soils Management
Maw Green Soil Treatment Centre
Maw Green Road
Crewe CW1 5NG

Signature

Date 30/10/25 Time 0937

61 Mosley Road
Trafford Park
Manchester
M17 1GJ

Tel: 0161 778 0333

www.ppoconnor.co.uk
salesledger@ppoconnor.co.uk

P. P. O'CONNOR
Committed To Excellence

WASTE CARRIERS LICENCE NO: CBDU101751

CONVEYANCE NOTE / PROOF OF DELIVERY

TICKET NO:	**180627**	**DATE:**	30-Oct-2025
CUSTOMER:	P.P. O'Connor Group Ltd	**DEPOT:**	P05
DELIVERY/COLLECTION ADDRESS C0677 C/O Maclaren Group, Stok Cae Ras, Off Crispin Lane, Wrexham LL11 2AH		**ORDER NO:**	C0677
		HAULIER:	PP O'Connor Plant Ltd
		VEHICLE REG:	MK21 BZX
		SITE CONTACT:	Dave Keating

PRODUCT DESCRIPTION	QUANTITY	
Hazardous	**GROSS WEIGHT**	44,280
	TARE WEIGHT	15,940
	NET WEIGHT	28,340

TIME ARRIVED ONSITE:	9:36	**CASH CUSTOMER:**
TIME FINISHED ONSITE:	9:36	
WAITING TIME/DAYWORK:	0.00	

DRIVER SIGNATURE:	**DRIVER NAME:** LIAM RYAN

SIGNED ON BEHALF OF THE CUSTOMER, I ACKNOWLEDGE THE DETAILS ON THIS TICKET AS CORRECT AND ARE SUBJECT TO OUR CONDITIONS OF SALE

PRINT NAME: Colin **CUSTOMER SIGNATURE:**

ALL RECYCLED PRODUCTS ARE PRODUCED IN COMPLIANCE WITH THE WRAP QUALITY PROTOCOL.
THIS MATERIAL IS SOLD SUBJECT TO THE TERMS AND CONDITIONS AS SHOW ON YOUR QUOTATION.
ALL VEHICLES ENTER CUSTOMERS PROPERTY AT CUSTOMER'S RISK. ALL GOODS ARE CARRIED SUBJECT TO RHA CONDITIONS OF ARRIAGE 1998. COPY AVAILABLE ON REQUEST.

61 Mosley Road
Trafford Park
Manchester
M17 1GJ

Tel: 0161 778 0333

www.ppoconnor.co.uk
salesledger@ppoconnor.co.uk

P. P. O'CONNOR
Committed To Excellence

WASTE CARRIERS LICENCE NO: CBDU101751

CONVEYANCE NOTE / PROOF OF DELIVERY

TICKET NO:	**180645**	**DATE:**	30-Oct-2025
CUSTOMER:	P.P. O'Connor Group Ltd	**DEPOT:**	P05
DELIVERY/COLLECTION ADDRESS C0677 C/O Maclaren Group, Stok Cae Ras, Off Crispin Lane, Wrexham LL11 2AH		**ORDER NO:**	C0677
		HAULIER:	PP O'Connor Plant Ltd
		VEHICLE REG:	MV24 WLA
		SITE CONTACT:	Dave Keating

PRODUCT DESCRIPTION	QUANTITY	
Hazardous	**GROSS WEIGHT**	44,220
	TARE WEIGHT	16,200
	NET WEIGHT	28,020

TIME ARRIVED ONSITE:	6:44	**CASH CUSTOMER:**
TIME FINISHED ONSITE:	8:04	
WAITING TIME/DAYWORK:	80.00	

DRIVER SIGNATURE:	**DRIVER NAME:** MARK SWIFT

SIGNED ON BEHALF OF THE CUSTOMER, I ACKNOWLEDGE THE DETAILS ON THIS TICKET AS CORRECT AND ARE SUBJECT TO OUR CONDITIONS OF SALE

PRINT NAME: Colin **CUSTOMER SIGNATURE:**

ALL RECYCLED PRODUCTS ARE PRODUCED IN COMPLIANCE WITH THE WRAP QUALITY PROTOCOL.
THIS MATERIAL IS SOLD SUBJECT TO THE TERMS AND CONDITIONS AS SHOW ON YOUR QUOTATION.
ALL VEHICLES ENTER CUSTOMERS PROPERTY AT CUSTOMER'S RISK. ALL GOODS ARE CARRIED SUBJECT TO RHA CONDITIONS OF ARRIAGE 1998. COPY AVAILABLE ON REQUEST.

61 Mosley Road
Trafford Park
Manchester
M17 1GJ

Tel: 0161 778 0333

www.ppoconnor.co.uk
salesledger@ppoconnor.co.uk

P. P. O'CONNOR
Committed To Excellence

WASTE CARRIERS LICENCE NO: CBDU101751

CONVEYANCE NOTE / PROOF OF DELIVERY

TICKET NO:	**180757**	**DATE:**	30-Oct-2025
CUSTOMER:	P.P. O'Connor Group Ltd	**DEPOT:**	P05
DELIVERY/COLLECTION ADDRESS	C0677 C/O Maclaren Group, Stok Cae Ras, Off Crispin Lane, Wrexham LL11 2AH	**ORDER NO:**	C0677
		HAULIER:	PP O'Connor Plant Ltd
		VEHICLE REG:	MK21 CBU
		SITE CONTACT:	Dave Keating

PRODUCT DESCRIPTION	**QUANTITY**	
Hazardous	**GROSS WEIGHT**	45,000
	TARE WEIGHT	16,000
	NET WEIGHT	29,000

TIME ARRIVED ONSITE:	8:54
TIME FINISHED ONSITE:	8:54
WAITING TIME/DAYWORK:	0.00

CASH CUSTOMER:

DRIVER SIGNATURE: LW

DRIVER NAME: LEWIS WHITE

SIGNED ON BEHALF OF THE CUSTOMER, I ACKNOWLEDGE THE DETAILS ON THIS TICKET AS CORRECT AND ARE SUBJECT TO OUR CONDITIONS OF SALE

PRINT NAME: Mick **CUSTOMER SIGNATURE:** Mick

ALL RECYCLED PRODUCTS ARE PRODUCED IN COMPLIANCE WITH THE WRAP QUALITY PROTOCOL.
THIS MATERIAL IS SOLD SUBJECT TO THE TERMS AND CONDITIONS AS SHOW ON YOUR QUOTATION.
ALL VEHICLES ENTER CUSTOMERS PROPERTY AT CUSTOMER'S RISK. ALL GOODS ARE CARRIED SUBJECT TO RHA CONDITIONS OF ARRIAGE 1998. COPY AVAILABLE ON REQUEST.

P M Dromgooles & Sons Agricultural Ltd
Broughton Cottage Farm, Mold Road, Broughton, Chester, CH4 0EW
Tel: 01244 661441
Email: accounts@dromgooles.co.uk
Website: https://www.dromgooles.co.uk/

Job No: 25177

Ref: 00000E1021 0000219642

DUTY OF CARE – WASTE TRANSFER / CONVEYANCE NOTE

A Waste

Description of Waste Material, Waste Contained and EWC Code:

Weight: 1
Quantity: 0
Description: SOIL AND STONES
Waste Code: 17 05 04 - Soil and stones other than those mentioned in 17 05 03

B Producer

☑ **I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England & Wales) Regulations 2011**

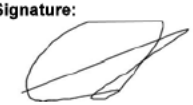
Company Name:
M.P.B Structures Ltd

Collection Address:
C/O McClaren Group/MPB Offices
Wrexham F.C Kop Stand
Crispin Lane
Wrexham
LL11 2BY

SIC Code:
38.11

Signed by:
Bal

Signature:



Time & Date:
1516 **on** 05/02/2026

C Transferee

Registered Waste Carrier

Company Name:
P M Dromgooles & Sons Agricultural Ltd

Waste Carrier No:
CBDU13593

Carrier Address:
Broughton Cottage Farm
Mold Road
Broughton
Chester
CH4 0EW

Signature:



Driver's Name: Seren Jones

Vehicle Reg: R121 PMD

Time & Date:
1516 **on** 05/02/2026

D Transfer

Disposal / Recycle / Transfer Facility:
Enovert Hafod LFG Site
101 Bangor Road

Johnstown
LL14 2SS

Site Permit / Exception No:
PP3139GB

Signed by:
Christine

Signature:



Time & Date:
1551 **on** 05/02/2026

I hereby certify that the above particulars are true and relate to the materials conveyed in the vehicle described

P M Dromgooles & Sons Agricultural Ltd
Broughton Cottage Farm, Mold Road, Broughton, Chester, CH4 0EW
Tel: 01244 661441
Email: accounts@dromgooles.co.uk
Website: https://www.dromgooles.co.uk/

Job No: 25177

Ref: 00000E1021 0000219642

DUTY OF CARE – WASTE TRANSFER / CONVEYANCE NOTE

A Waste

Description of Waste Material, Waste Contained and EWC Code:

Weight: 1
Quantity: 0
Description: SOIL AND STONES
Waste Code: 17 05 04 - Soil and stones other than those mentioned in 17 05 03

B Producer

☑ **I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England & Wales) Regulations 2011**

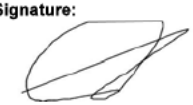
Company Name:
M.P.B Structures Ltd

Collection Address:
C/O McClaren Group/MPB Offices
Wrexham F.C Kop Stand
Crispin Lane
Wrexham
LL11 2BY

SIC Code:
38.11

Signed by:
Bal

Signature:



Time & Date:
1516 **on** 05/02/2026

C Transferee

Registered Waste Carrier

Company Name:
P M Dromgooles & Sons Agricultural Ltd

Waste Carrier No:
CBDU13593

Carrier Address:
Broughton Cottage Farm
Mold Road
Broughton
Chester
CH4 0EW

Signature:



Driver's Name: Seren Jones

Vehicle Reg: R121 PMD

Time & Date:
1516 **on** 05/02/2026

D Transfer

Disposal / Recycle / Transfer Facility:
Enovert Hafod LFG Site
101 Bangor Road

Johnstown
LL14 2SS

Site Permit / Exception No:
PP3139GB

Signed by:
Christine

Signature:



Time & Date:
1551 **on** 05/02/2026

I hereby certify that the above particulars are true and relate to the materials conveyed in the vehicle described

Certificate of Registration under the Waste (England and Wales) Regulations 2011

Regulation authority

Name	Environment Agency
Address	National Customer Contact Centre 99 Parkway Avenue Sheffield S9 4WF
Telephone number	03708 506506

The Environment Agency certify that the following information is entered in the register which they maintain under regulation 28 of the Waste (England and Wales) Regulations 2011.

Carriers details

Name of registered carrier	PP O'CONNOR GROUP LIMITED
Registered as	An upper tier waste carrier, broker and dealer
Registration number	CBDU101751
Address of place of business	P P O'CONNOR LTD 61 MOSLEY ROAD TRAFFORD PARK MANCHESTER M17 1GJ
Date of registration	2 May 2025
Expiry date of registration (unless revoked)	7 May 2028

This certificate was created on 6 May 2025. These details are correct at the time of certificate generation.

This copy has been issued under Regulation 6 of Waste (England and Wales) Amendment Act 2014 by the Environment Agency. This is copy number 1 of the certificate.

Making changes to your registration

Your registration will last 3 years and will need to be renewed after this period. If any of your details change, you must notify us within 28 days of the change.

Cyfoeth Naturiol Cymru
Natural Resources Wales

Mr Martin Womack
Office 26
Red Hill House
Hope Street
Saltney
CH4 8BU

Our ref: EPR/FB3734RP/A001

Date: 5th June 2013

Dear Mr Womack

Your new environmental permit

Permit reference: EPR/FB3734RP/A001
Waste returns reference: EAWML 104002
Operator: PM Dromgoole and Sons Agricultural Limited
Facility: PM Dromgoole and Sons Agricultural Limited, Broughton Cottage Farm, Mold Road, Nr Mold, Flintshire, CH4 0EW

Our determination of your application for a permit is complete. We're satisfied that you can carry out your activities in accordance with the enclosed permit, without harm to the environment or human health. I enclose your new permit. Please keep it in a safe place.

This letter contains web links to other documents. If you aren't able to access these phone our Customer Services Centre on 0300 065 3000 for help.

You need to read our document 'How to comply with your environmental permit'. This will help you understand what you need to do to meet the conditions of your permit. You can find this on the Environment Agency's guidance web page at http://www.environment-agency.gov.uk/business/topics/permitting/32320.aspx

Please look at the table below and note any of the things that apply to your permit.

Ffôn/Tel 029 2046 8809
Ffacs/Fax 029 2046 8874
Ebost/Email Hannah.Loughlin@cyfoethnaturiolcymru.gov.uk
Hannah.Loughlin@naturalresourceswales.gov.uk

Canolfan Trwyddedu Cymru (Caerdydd), Cyfoeth Naturiol Cymru, Tŷ Cambria, 29 Heol Casnewydd, Caerdydd. CF24 0TP
Wales Permitting Centre (Cardiff), Natural Resources Wales, Cambria House, 29 Newport Road, Cardiff. CF24 0TP

Gwefan/Website www.cyfoethnaturiolcymru.gov.uk
www.naturalresourceswales.gov.uk

Croesewir gohebiaeth yn y Gymraeg a'r Saesneg
Correspondence welcomed in Welsh and English

If...	then..
you plan to keep your records at a site other than where the activity takes place	you need to let us know within 20 working days of receiving this letter.
your permit includes pre-operational or improvement conditions	check the deadlines for completing measures and make sure you carry them out by the times stated
you are carrying out a waste operation or activity and need to submit quarterly waste returns on waste movements **Note:** This does not apply to permits that only have stand alone water discharge or groundwater activities.	you can get the forms you need from our website www.naturalresourceswales.gov.uk When you complete your return use the waste returns reference above.
your permit includes an installation	we enclose a legal notice and information about reporting to the Pollution Inventory.
you need to submit other returns	send these to your area office. Speak to your area officer to check local arrangements.

There is an annual subsistence charge for your permit unless:

- your permit is only for discharges of sewage effluent where the maximum daily volume of discharge permitted is five cubic metres or less (this does not apply to non trade effluent or any other type of discharge);
- or your permit is only for mobile plant, instead we will charge for each deployment.

The annual charge is due on demand in the year that we issue the permit and then on 1 April each year. The charge starts from the date we authorise the permit, unless there's a condition relating to a standalone water discharge which states a later start date. In that case we will charge for the discharge from the start date. If you need to know more about the subsistence charge please look at the charging guidance on our website at www.naturalresourceswales.gov.uk.

Rights of appeal

If you're not happy with any permit condition that has been imposed by the permit you may appeal to Welsh Ministers. You must make your appeal no later than six months after the permit issue date. Further information about making an appeal and the forms you will need are available from the Planning Inspectorate website or from the contact details below.

The Planning Inspectorate, Crown Buildings, Cathays Park, Cardiff, CF10 3NQ.

Phone: 029 2082 3866 / 389, Fax: 029 2082 5150 **Email:** wales@pins.gsi.gov.uk

You must send written notice of the appeal and the documents listed below to the Welsh Ministers to the respective Planning Inspectorate address above. At the same time you must send us a copy of the notice and documents to

Centre Manager, Wales Permitting Centre Cardiff, Natural Resources Wales, Cambria House, 29 Newport Road, Cardiff. CF24 0TP

Phone: 0300 065 3000

The documents are:

- a statement of the grounds of appeal;
- a copy of any relevant application;
- a copy of any relevant environmental permit;
- a copy of any relevant correspondence between the appellant and the regulator;
- a copy of any decision or notice which is the subject matter of the appeal; and

- a statement indicating whether you wish the appeal to be in the form of a hearing or dealt with by way of written representations.

You may withdraw an appeal by notifying the Welsh Ministers in writing and sending a copy of that notification to us.

If you have any questions about this permit please phone our Customer Services Centre on 0300 065 3000. They will put you in touch with a local area officer.

Yours sincerely

Hannah Loughlin
Permitting Officer

Cyfoeth Naturiol Cymru
Natural Resources Wales

Permit

The Environmental Permitting (England & Wales) Regulations 2010

P M Dromgoole and Sons
Agricultural Limited

P M Dromgoole and Sons
Agricultural Limited
Broughton Cottage Farm
Mold Road
Nr Mold
Flintshire
CH4 0EW

Permit number

EPR/FB3734RP

Permit

Permit number
EPR/FB3734RP

Natural Resources Body for Wales ("Natural Resources Wales") authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010

P M Dromgoole and Sons Agricultural Limited ("the operator"),

whose registered office is

Broughton Cottage farm
Mold Road
Nr Mold
Flintshire
CH4 0EW

company registration number 03811200

to operate waste operations described in standard rules **SR2010No12** at

P M Dromgoole and Sons Agricultural Limited
Broughton Cottage farm
Mold Road
Nr Mold
Flintshire
CH4 0EW

to the extent authorised by and subject to the conditions of this permit.

Under regulation 27(2) of the Regulations, standard rules **SR2010No12** are conditions of this permit.

Name	Date
Stephen Attwood	**05/06/13**

Authorised on behalf of Natural Resources Wales

Standard rules

Chapter 4, The Environmental Permitting (England and Wales) Regulations 2010

Standard rules SR2010No12
Treatment of waste to produce soil, soil substitutes and aggregate

Introductory note

This introductory note does not form part of these standard rules.

When referred to in an environmental permit, these standard rules will allow the operator to store waste at a specified location and treat it to produce soil, soil substitutes and aggregate. Permitted wastes do not include hazardous wastes. The total quantity of waste that can be stored and subsequently treated at the site under these standard rules shall be no more than 75,000 tonnes per year. These standard rules do not permit the burning of any wastes, either in the open, inside buildings or in any form of incinerator.

The permitted activities shall not be carried out within 500 metres of a European Site[1], Ramsar site or a Site of Special Scientific Interest (SSSI) nor within a specified Air Quality Management Area (AQMA)[2]. The permitted activities shall not be within:

- 10 metres of any watercourse;
- 50 metres from any spring or well, or from any borehole not used to supply water for domestic or food production purposes; and
- 50 metres from any well, spring or from any borehole used for the supply of water for human consumption. This must include private water supplies.
- 250metres within the presence of Great Crested Newts, where it is linked to the breeding ponds of the newts by good habitat.;
- 50 metres of a site that has relevant species or habitats protected under the Biodiversity Action Plan that the Environment Agency considers at risk to this activity.;.
    - 50 metres of a National Nature Reserve (NNR), Local Nature Reserves(LNR), Local Wildlife Site (LWS), Ancient woodland or Scheduled Ancient Monument.

These standard rules do not allow any point source emission into surface waters or groundwater. However, under the emissions of substances not controlled by emission limits rule:

- Liquids may be discharged into a foul sewer subject to a consent issued by the local water company.

[1] A candidate or Special Area of Conservation (cSAC or SAC) and proposed or Special Protection Area (pSPA or SPA) in England and Wales.

[2] An Air Quality Management Area within the meaning of the Environment Act 1995 which has been designated due to concerns about particulate matter in the form of PM10.

- Liquids may be taken off-site in a tanker for disposal or recovery.
- Clean surface water from roofs, or from areas of the site that are not being used in connection with storing and treating waste, may be discharged directly to surface waters, or to groundwater by seepage through the soil via a soakaway.

End of introductory note

Rules

1 – Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

(a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and

(b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with rule 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in these standard rules shall have convenient access to a copy of them kept at or near the place where those duties are carried out.

1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.2 Avoidance, recovery and disposal of wastes produced by the activities

1.2.1 The operator shall take appropriate measures to ensure that:

(a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and

(b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and

(c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 – Operations

2.1 Permitted activities

2.1.1 The operator is only authorised to carry out the operations specified in table 2.1 below ("the activities").

Table 2.1 Activities	
Description of activities	**Limits of activities**
R13: Storage of wastes pending the operations numbered R3 and R5. **R3:** recycling or reclamation of organic substances which are not used as solvents. **R5:** Recycling or reclamation of other inorganic materials.	Treatment of wastes listed in table 2.3 consisting only of sorting, separation, screening, crushing and blending of waste for recovery as a soil, soil substitute or aggregate. Secure storage of wastes listed in table 2.3 pending treatment. Storage of wastes listed in table 2.4 shall not exceed 10,000 tonnes in total at any one time. All other wastes stored shall not exceed 40,000 tonnes in total at any one time. No more than 75,000 tonnes of waste shall be treated per year.

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan attached to the permit.

2.2.2 The activities shall not be carried out within:

(a) 500 metres of a European Site or Site of Special Scientific Interest (SSSI);

(b) 10 metres of any watercourse;

(c) 50 metres of any spring or well, or any borehole not used to supply water for domestic or food production purposes;

(d) a specified AQMA.

(e) 50 metres from any well, spring or from any borehole used for the supply of water for human consumption. This must include private water supplies.

(f) 250metres within the presence of Great Crested Newts where it is linked to the breeding ponds of the newts by good habitat;

(g) 50 metres of a site that has species or habitats protected under the Biodiversity Action Plan that the Environment Agency considers at risk to this activity;.

(h) 50 metres of a National Nature Reserve (NNR), Local Nature Reserves(LNR), Local Wildlife Site (LWS), Ancient woodland or Scheduled Ancient Monument.

2.3 Waste acceptance

2.3.1 Waste shall only be accepted if:

(a) it is of a type listed in table 2.3 of these standard rules;

(b) it conforms to the description in the documentation supplied by the producer and holder;

(c) its chemical, physical and biological characteristics make it suitable for its intended treatment;

(d) any excavated soil from potentially contaminated sites has been shown by prior chemical analysis and assessment to be suitable for the intended use without significant risk of pollution; and

(e) it is visually inspected on arrival and before it enters the treatment process to ensure that it complies with these standard rules.

2.3.2. Any waste that does not comply with 2.3.1 shall be rejected and shall be;

(a) removed from the site; or

(b) moved to a designated quarantine area pending removal.

2.3.3 Records demonstrating compliance with rule 2.3 (including analysis and assessment of any excavated soil from potentially contaminated sites) shall be maintained.

Table 2.3 Waste types

Exclusions

Wastes having any of the following characteristics shall not be accepted:

- **Consisting solely or mainly of dusts, powders or loose fibres**
- **Hazardous wastes**
- **Wastes in liquid form**

Waste Code	Description
01	**WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS**
01 04	**wastes from physical and chemical processing of non-metalliferous minerals**
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
02 02	**waste from preparation and processing of meat, fish and other foods of animal origin**
02 02 02	shellfish shells from which the soft tissue or flesh has been removed only
03	**WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD**
03 01	**wastes from wood processing and the production of panels and furniture**
03 01 01	waste bark and cork
03 03	**wastes from pulp, paper and cardboard production and processing**
03 03 01	waste bark and wood
10	**WASTES FROM THERMAL PROCESSES**
10 01	**waste from power stations and other combustion plants**
10 01 01	bottom ash and slag only
10 01 02	pulverised fuel ash only
10 01 05	gypsum (solid) only
10 01 07	gypsum (sludge) only
10 01 15	bottom ash and slag only from co-incineration other than those mentioned in 10 01 14
10 11	**wastes from manufacture of glass and glass products**
10 11 12	clean glass other than those mentioned in 10 11 11

10 12	**wastes from manufacture of ceramic goods, brick, stiles and construction products**
10 12 08	waste ceramics, bricks, tiles and construction products(after thermal processing)
10 13	**wastes from manufacture of cement, lime and plaster products and articles and products made from them**
10 13 14	waste concrete only
15	**WASTE PACKAGING**
15 01	**packaging**
15 01 07	clean glass only
17	**CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)**
17 01	**concrete, bricks, tiles and ceramics**
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	**wood, glass and plastic**
17 02 02	clean glass only
17 03	**bituminous mixtures, coal tar and tarred products**
17 03 02	road base and road planings (other than those containing coal tar) only
17 05	**soil (including excavated soil from contaminated sites) stones and dredging spoil**
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 06	dredging spoil other than those mentioned in 17 05 05
17 05 08	track ballast other than those mentioned in 17 05 07
17 08	**gypsum based construction material**
17 08 02	gypsum only other than that mentioned in 17 08 01
19	**WASTES FROM WASTE MANAGEMENT FACILITIES, OFF SITE WASTE WATER TREATMENT PLANTS AND PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION / INDUSTRIAL WASTE**
19 05	**wastes from aerobic treatment of solid waste**
19 05 03	compost from source segregated biodegradable waste only
19 08	**wastes from waste water treatment plants not otherwise specified**
19 08 02	washed sewage grit (waste from desanding) free from sewage contamination only
19 08 99	stone filter media if free from sewage contamination only
19 09	**wastes from the preparation of water intended for human consumption or water for industrial use**
19 09 02	sludges from water clarification
19 12	**wastes from the mechanical treatment of wastes**
19 12 05	clean glass only
19 12 09	minerals (for example sand, stones)
19 12 12	treated bottom ash including IBA and slag other than that containing dangerous substances only
19 13	**wastes from soil and groundwater remediation**
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03
20	**MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS**
20 01	**separately collected fractions**
20 01 02	clean glass only
20 02	**garden and park wastes**
20 02 02	soil and stones

2.4 Operating techniques

2.4.1 The activities shall be operated using the techniques and in the manner described in Table 2.4 below.

Table 2.4 Operating techniques

When located within groundwater Source Protection Zones 1 or 2 the specified wastes below shall be stored and treated on an impermeable surface with a sealed drainage system.

When located outside groundwater Source Protection Zones 1 or 2 all permitted wastes shall be stored and treated on hard-standing or on an impermeable surface with sealed drainage system.

Waste Code	Description	
03 01 01	waste bark and cork	
03 03 01	waste bark and wood	
10 01 01	bottom ash and slag only	
10 01 05	gypsum (solid) only	
10 01 07	gypsum (sludge) only	
10 01 15	bottom ash and slag only from co-incineration other than those mentioned in 10 01 14	
17 05 06	dredging spoil other than those mentioned in 17 05 05	
17 08 02	gypsum only other than that mentioned in 17 08 01	
19 05 03	compost from source segregated biodegradable waste only	
19 09 02	sludges from water clarification	
19 12 12	treated bottom ash including IBA and slag other than that containing dangerous substances only	
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01	
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03	

3 – Emissions and monitoring

3.1 Emissions of substances not controlled by emission limits

3.1.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this rule if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.1.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan;

(b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.1.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container

3.2 Odour

3.2.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable, to minimise, the odour.

3.2.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan;

(b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.3 Noise and vibration

3.3.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan, to prevent or where that is not practicable, to minimise, the noise and vibration.

3.3.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan;

(b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

4 – Information

4.1 Records

4.1.1 All records required to be made by these standard rules shall:

(a) be legible;

(b) be made as soon as reasonably practicable;

(c) if amended, be amended in such a way that the original and any subsequent amendments remain legible or are capable of retrieval; and

(d) be retained, unless otherwise agreed by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:

(i) off-site environmental effects; and

(ii) matters which affect the condition of land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by these standard rules, unless otherwise agreed in writing by the Environment Agency

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by these standard rules to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.3 Notifications

4.3.1 The Environment Agency shall be notified without delay following the detection of:

(a) any malfunction, breakdown or failure of equipment or techniques, accident or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution;

(b) the breach of a limit specified in these standard rules; or

(c) any significant adverse environmental effects.

4.3.2 Written confirmation of actual or potential pollution incidents and breaches of emission limits shall be submitted within 24 hours.

4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters except where such disclosure is prohibited by Stock Exchange rules:

a) Where the operator is a registered company:

- any change in the operator's trading name, registered name or registered office address; and
- any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

b) Where the operator is a corporate body other than a registered company:

- any change in the operator's name or address; and
- any steps taken with a view to the dissolution of the operator.

c) In any other case:

- the death of any of the named operators (where the operator consists of more than one named individual);
- any change in the operator's name(s) or address(es); and
- any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case them being in a partnership, dissolving the partnership.

4.4 Interpretation

4.4.1 In these standard rules the expressions listed below shall have the meaning given.

4.4.2 In these standard rules references to reports and notifications mean written reports and notifications, except when reference is being made to notification being made "without delay", in which case it may be provided by telephone.

"accident" means an accident that may result in pollution.

"AQMA" means an air quality management area within the meaning of the Environment Act 1995 which has been designated due to concerns about particulate matter in the form of PM10.

"authorised officer" means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in Section 108(4) of that Act.

"dangerous substances" means any substance that has been or will be classified as dangerous in Directive 67/548/EEC and its subsequent amendments.

"*domestic purposes*" has the same meaning as in section 218 of the Water Industry Act 1991.

"emissions of substances not controlled by emission limits" means emissions of substances to air, water or land from the activities, either from emission points specified in these standard rules or from other localised or diffuse sources, which are not controlled by an emission limit.

"European Site" means Special Area of Conservation or candidate Special Area of Conservation or Special Protection Area or proposed Special Protection Area in England and Wales, within the meaning of Council Directives 79/409/EEC on the conservation of wild birds and 92/43/EEC on the conservation of natural habitats and of wild flora and fauna and the Conservation (Natural Habitats &c) Regulations 1994. Internationally designated Ramsar sites are dealt with in the same way as European sites as a matter of government policy and for the purpose of these rules will be considered as a European Site.
"food production purposes" means the manufacturing, processing, preserving or marketing purposes with respect to food or drink for which water supplied to food production premises may be used, and for the purposes of this definition "food production purposes" means premises used for the purposes of a business of preparing food or drink for consumption otherwise than on the premises.

"*good habitat"* means rough (especially tussocky) grassland, scrub and woodland

"groundwater" means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"impermeable surface" means a surface or pavement constructed and maintained to a standard sufficient to prevent the transmission of liquids beyond the pavement surface, and should be read in conjunction with the term "sealed drainage system" (below).

"hardstanding" is a compacted solid surface capable of withstanding the operation and the loading / unloading of wastes.

"IBA" means incinerator bottom ash derived from the incineration or pyrolosis of waste.

"pollution" means emissions as a result of human activity which may—

(a) be harmful to human health or the quality of the environment,
(b) cause offence to a human sense,
(c) result in damage to material property, or
(d) impair or interfere with amenities and other legitimate uses of the environment.

"*quarter*" means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

"R" means a recovery operation provided for in Annex IIB to Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on Waste.

"sealed drainage system" in relation to an impermeable surface, means a drainage system with impermeable components which does not leak and which will ensure that:

(a) no liquid will run off the surface otherwise than via the system;
(b) except where they may lawfully be discharged to foul sewer, all liquids entering the system are collected in a sealed sump.

"secure storage" means storage where waste cannot escape and members of the public do not have access to it.

"SSSI" means Site of Special Scientific Interest within the meaning of the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000).

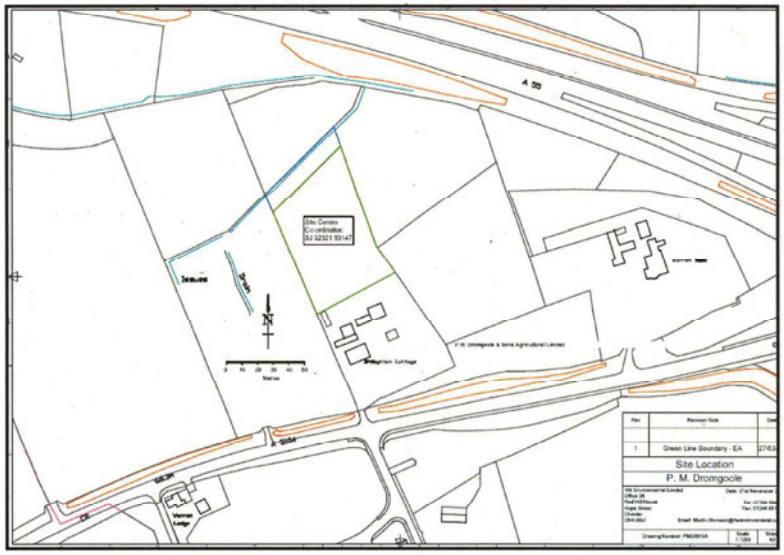
"waste code" means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

"year" means calendar year commencing on 1st January.

End of standard rules

Schedule 1 - Site plan

This is the plan referred to in the standard rules SR2010No12



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Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

3C Waste Limited

Maw Green Landfill Site
Maw Green Road
Coppenhall
Crewe
Cheshire
CW1 5NG

Variation application number

EPR/BS7722ID/V011

Permit number

EPR/BS7722ID

Maw Green Landfill Site
Permit number EPR/BS7722ID

Introductory note

This introductory note does not form a part of the notice

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. Only the variations specified in schedule 1 are subject to a right of appeal.

The variation has been issued as a result of an Appeal against conditions in the regulator initiated variation V010 of the permit and amends conditions regarding the asbestos screening and picking activity for soils impacted with bound asbestos at the Soil Treatment Facility (STF) located within the existing permitted landfill boundary.

The installation operates as follows.

This site undertakes the landfilling of non-hazardous wastes and will be subject to restoration.

In addition, there are a number of waste treatment activities within the boundary of the landfill. This includes a Soil Treatment Facility (STF) located within the boundary, this undertakes the sorting and separation of bound asbestos from contaminated soils along with biological treatment activities taking leachate and hazardous and non-hazardous wastes.

Screening of soils impacted with bound asbestos will be enclosed in a building with localised air extraction and abatement via a HEPA filter to prevent and minimise emissions from the process. The STF will accept and treat up to 50,000 tonnes per annum of hazardous and non-hazardous waste (including the soils impacted with bound asbestos). Once treated the wastes will be tested for suitability for use in the wider landfill restoration. Soils that do not meet the reuse criteria will be sent offsite for disposal.

The schedules specify the changes made to the permit.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	**Date**	**Comments**
Application EPR/BS7722ID/A001	09/10/2003	Received
Request for information	17/06/2004	Response received 19/07/2004
Request for information	23/06/2004	Response received 06/07/2004
Request for information	06/07/2004	Response received 20/07/2004
Request for information	25/08/2004	Response received 06/10/2004 and 11/10/2004
Request for information	30/12/2004	Response received 14/01/2005 and 27/01/2005
Permit determined EPR/BS7722ID	15/02/2005	
Variation notice UP3232LQ determined (EPR/BS7722ID/V002)	17/03/2005	

Status log of the permit		
Description	**Date**	**Comments**
Application for Permit variation (EPR/BS7722ID/V003)	10/10/2007	Application received
Variation notice FP3931XK determined (EPR/BS7722ID/V003)	30/05/2008	
Environment Agency variation determined (EPR/BS7722ID/V005)	14/05/2013	Agency variation to implement changes introduced by IED
Environment Agency Landfill Sector Review Permit reviewed Variation notice determined EPR/BS7722ID/V006	15/02/2017	Permit varied and consolidated permit issued in the modern format
Application EPR/BS7722ID/V007	Duly made 11/07/2019	Application to vary Permit to include soil treatment facility and associated Activities on site.
Request for information in Schedule 5 Notice	23/08/2019	Response received 23/10/2019
Request for information in Schedule 5 Notice	22/11/2019	Responses received13/12/2019 and 10/01/2020
Request for information by email	20/01/2020	Response received 12/02/2020
Variation determined EPR/BS7722ID/V007	18/03/2020	Varied permit issued.
Application EPR/BS7722ID/V008 (variation and consolidation)	Duly made 27/09/2022	Application to vary and update the permit. Increasing the treatment capacity for hazardous soils at the Soil Treatment Facility. Operator registered office change of address incorporated as administrative change.
Variation determined and consolidation issued EPR/BS7722ID	25/01/2023	Varied and consolidated permit issued in modern format.
Application EPR/BS7722ID/V009 (variation and consolidation)	Duly Made 13/04/2023	Application to add an additional listed activity for the treatment and storage of soils contaminated with asbestos at the Soil Treatment Facility (STF), add associated waste codes and increase hazardous storage capacity at any one time.
Variation determination and consolidation issued EPR/BS7722ID	20/07/2023	Varied and consolidated permit issued.
Variation determined and consolidation issued EPR/BS7722ID/V010 Billing Reference BS7722ID	05/10/2023	Environment Agency initiated variation. Varied and consolidated permit issued.
The Environment Agency has been directed by the Secretary of State for the Environment to issue this variation.	15/04/2025	Variation determined and issued as a result of an Appeal against Version V010 of the permit, Appeal reference APP/EPR/652.

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 has varied:

Permit number

EPR/BS7722ID

Issued to

3C Waste Limited ("the operator")

whose registered office is

3 Sidings Court
White Rose Way
Doncaster
DN4 5NU

company registration number 02632581

to operate a regulated facility at

Maw Green Landfill Site
Maw Green Road
Coppenhall
Crewe
Cheshire
CW1 5NG

to the extent set out in the schedules.

The notice shall take effect from 15/04/2025

Name	Date
Hannah Finney	**15/04/2025**

Authorised on behalf of the Environment Agency

Schedule 1

The following conditions are amended as a result of the variation:

Table S1.1, Table S1.2, Table S1.3, Table S1.4, Table S2.4, Table S3.2, Table S3.14.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/BS7722ID

This is the consolidated permit referred to in the variation and consolidation notice EPR/BS7722ID/V011 authorising,

3C Waste Limited ("the operator"),

whose registered office is

3 Sidings Court
White Rose Way
Doncaster
DN4 5NU

company registration number 02632581

to operate an installation at

Maw Green Landfill Site
Maw Green Road
Coppenhall
Crewe
Cheshire
CW1 5NG

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Hannah Finney	**15/04/2025**

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

(a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and

(b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.2 Finance

1.2.1 The financial provision for meeting the obligations under this permit shall be as set out in the Deed of Performance dated 17 October 2007 between the Waste Recycling Group Limited (now known as FCC Environment (UK) Limited) and the Environment Agency as varied by a Deed of Variation dated 15 October 2010 (as varied by further Deeds of Variation from time to time). The operator shall accordingly ensure that the Permit is and remains throughout its subsistence a Permit to which the Deed relates and the operator shall produce evidence of such provision whenever required by the Environment Agency.

1.2.2 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover all of the following:

(a) the costs of setting up and operating the landfill;

(b) the costs of the financial provision required by condition 1.2.1; and

(c) the estimated costs for the closure and aftercare of the landfill.

1.3 Energy efficiency

1.3.1 The operator shall:

(a) take appropriate measures to ensure that energy is used efficiently in the activities;

(b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and

(c) implement any appropriate measures identified by a review.

1.4 Efficient use of raw materials

1.4.1 The operator shall:

(a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;

(b) maintain records of raw materials and water used in the activities;

(c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and

(d) take any further appropriate measures identified by a review.

1.5 Avoidance, recovery and disposal of wastes produced by the activities

1.5.1 The operator shall take appropriate measures to ensure that:

(a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and

(b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and

(c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment

1.5.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").

2.1.2 For the following activities referenced in schedule 1, table S1.1 (AR3 to AR8 and AR16) waste authorised by this permit shall be clearly distinguished from any other waste on the site.

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in blue on the site plan at schedule 7 to this permit.

2.3 Operating techniques

2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

2.3.3 Any raw materials or fuels listed in schedule 2 table S2.5 shall conform to the specifications set out in that table.

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

2.5 Pre-operational conditions

2.5.1 The operations specified in schedule 1 table S1.4 shall not commence until the measures specified in that table have been completed.

2.6 Landfill Engineering

2.6.1 No construction of any new cell of the landfill shall commence until the operator has submitted construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.

2.6.2 Where the operator proposes to construct any new cell other than the first cell, but proposes no change from the design of the most recently approved cell which could have any impact on the performance of any element of the design, no construction of the new cell shall commence until the operator has submitted a cell layout drawing and the Environment Agency has confirmed that it is satisfied with the cell layout drawing.

2.6.3 The construction of a new cell shall take place only in accordance with the approved construction proposals unless:

(a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or

(b) a change has otherwise been agreed in writing by the Environment Agency.

2.6.4 No disposal of waste shall take place in a new cell until the operator has submitted a CQA Validation Report and the Environment Agency has confirmed that it is satisfied with the CQA Validation Report.

2.6.5 No construction of landfill infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.

2.6.6 The construction of the landfill infrastructure shall take place only in accordance with the approved construction proposals unless:

(a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or

(b) a change has otherwise been agreed in writing by the Environment Agency.

2.6.7 The operator shall submit a CQA Validation Report within four weeks of the completion of the construction of the relevant landfill infrastructure or other time period agreed in writing with the Environment Agency.

2.6.8 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.6.5 and 2.6.6 do not apply and the relevant landfill infrastructure may be constructed, provided that the construction proposals are submitted to the Environment Agency as soon as practicable.

2.6.9 For the purposes of conditions 2.6.1, 2.6.2, 2.6.4 and 2.6.5, the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the relevant construction proposals or CQA Validation Report, either:

(a) confirmed whether or not it is satisfied; or

(b) informed the operator that it requires further information.

2.6.10 Where the Environment Agency has required further information under condition 2.6.9(b), the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the further information, either:

(a) confirmed whether or not it is satisfied; or

(b) informed the operator that it requires further information.

2.7 Waste acceptance

2.7.1 For the following activities referenced in Schedule 1, Table S1.1 (AR1), wastes shall only be accepted for disposal if:

(a) they are listed in schedule 2, Table S2.1, and

(b) they are non-hazardous waste, and

(c) they are not whole used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400 mm), and

(d) they are not shredded used tyres, and

(e) they are not liquid waste (including waste waters but excluding sludge), and

(f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown, and

(g) all the relevant waste acceptance procedures have been completed, and

(h) they fulfil the relevant waste acceptance criteria, and

(i) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria, and

(j) they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment, and

(k) they are wastes with a code beginning with 07 05 and 16 03, they shall exclude waste medicinal products and pharmaceutically active waste materials arising from their manufacture.

2.7.2 Wastes shall only be accepted for restoration where:

(a) they are listed in schedule 2, table S2.2 and

(b) they are accepted in accordance with a restoration plan approved in writing by the Environment Agency.

2.7.3 For the following activities referenced in Schedule 1, Table S1.1 (AR1) the operator shall:

(1) visually inspect without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill and waste at the point of deposit; and

(2) be satisfied that the waste conforms to the requirements of condition 2.6.1.

2.7.4 For the following activities referenced in schedule 1, Table S1.1 (AR3 – AR8 and AR16) waste shall only be accepted if:

(a) it is of a type and quantity listed in schedule 2, Tables S2.3a and S2.3b and S2.4

(b) it conforms to the description in the documentation supplied by the producer and holder.

2.7.5 Where the operator has taken samples to establish that the waste is in conformity with the documentation submitted by the holder then the samples taken shall be retained for at least one month and results of any analysis for at least two years.

2.7.6 The operator on accepting each delivery of waste shall provide a receipt to the person delivering it.

2.7.7 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing reference 1351-01-08 Final Restoration Plan.

2.7.8 The quantity of waste that is deposited or recovered in the landfill in any year shall not exceed the limits in schedule 1 table S1.5.

2.7.9 The operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery and, where practicable, origin of any waste that is received for disposal or recovery and of the identity of the producer, or in the case of municipal waste and multiple collection vehicles, of the collector of such waste. Any information regarded by the operator as commercially confidential shall be clearly identified in the record.

2.7.10 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1 table S1.1 and appropriate measures are taken.

2.7.11 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:

(1) the nature of the process producing the waste;

(2) the composition of the waste;

(3) the handling requirements of the waste;

(4) the hazardous property associated with the waste, if applicable; and

(5) the waste code of the waste.

2.7.12 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.8 Leachate levels

2.8.1 The limits for the level of leachate listed in schedule 3 table S3.1 shall not be exceeded.

2.9 Closure and aftercare

2.9.1 The operator shall maintain a closure and aftercare management plan.

2.10 Landfill gas management

2.10.1 The operator shall take appropriate measures, including, but not limited to, those specified in any approved landfill gas management plan, to:

(a) collect landfill gas; and

(b) control the migration of landfill gas.

2.10.2 The operator shall use the collected landfill gas to produce energy. If the collected landfill gas cannot be used to produce energy, the operator shall use appropriate measures to flare or treat the gas in accordance with an approved landfill gas management plan.

2.10.3 The operator shall:

(a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a revised landfill gas management plan;

(b) implement the revised landfill gas management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3 Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 The limits in Schedule 3 shall not be exceeded.

3.1.2 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.2, S3.3 and S3.4.

3.1.3 The limits given in Table S3.2 shall not be exceeded, save that compliance with an emission limit in that table shall include incorporation of the uncertainty allowance stated in Environment Agency guidance LFTGN 05 and LFTGN 08.

3.1.4 The operator shall prevent the input of any hazardous substances from the activities into groundwater.

3.1.5 The operator shall submit to the Environment Agency a review of the Hydrogeological Risk Assessment:

(a) between nine and six months prior to the sixth anniversary of the granting of the permit, and

(b) between nine and six months prior to every subsequent six years after the fourth anniversary of the granting of the permit.

3.1.6 For the following activities referenced in schedule 1, table S1.1 (AR3 to AR8 and AR16) periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;

(b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;

(b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;

(b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring and any other actions specified in the following tables in schedule 3 to this permit:

(a) Leachate specified in tables S3.1 and S3.11;

(b) Point source emissions specified in tables S3.2, S3.3 and S3.4;

(c) Groundwater specified in tables S3.5 and S3.9;

(d) Landfill gas specified in tables S3.6, S3.8 and S3.10;

(e) Surface water specified in table S3.12;

(f) Particulate matter specified in table S3.7;

(g) Ambient air monitoring specified in table S3.14.

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.5.4 A topographical survey of the site referenced to ordnance datum shall be carried out and shall be used to produce a plan of a scale adequate to show the surveyed features of the site:

(a) annually, and

(b) prior to the disposal of waste in any new cell or new development area of the landfill, and

(c) following closure of the landfill or part of the landfill.

3.5.5 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 to S3.13 unless otherwise agreed in writing by the Environment Agency.

3.6 Pests

3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.

3.6.2 The operator shall:

(a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution hazard or annoyance from pests;

(b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.7 Fire prevention

3.7.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including, but not limited to, those specified in any approved fire prevention plan.

3.7.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to a risk of fire, submit to the Environment Agency for approval within the period specified, a fire prevention plan which prevents fires and minimises the risk of pollution from fires;

(b) implement the fire prevention plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

(a) be legible;

(b) be made as soon as reasonably practicable;

(c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and

(d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:

(i) the results of groundwater monitoring;

(ii) sub-surface landfill gas monitoring;

(iii) leachate levels, quality and quantities;

(iv) landfill gas generation and collection;

(v) waste types and quantities;

(vi) the specification and as built drawings of the basal, sidewall and capping engineering systems.

for the following activities referenced in schedule 1, table S1.1 (AR3 to AR8 and AR16):

(vii) off-site environmental effects; and

(viii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 The operator shall send reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 For the following activities referenced in schedule 1, Table S1.1 (AR1 and AR2), a report or reports on the performance of the activities over the previous year ('the annual report') shall be submitted to the Environment Agency by 31st January each year or such other date as may be agreed in writing by the Agency, with the exception of 4.2.2(c) that must be provided by the end of February each year. The report(s) shall include as a minimum:

(a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the risk assessments submitted in relation to this installation and any agreed amendments thereto. The review will include written descriptions of the improvements made to operational performance during the year, action plans developed and planned improvements for the coming year;

(b) the energy consumed at the site, reported in the format set out in schedule 4 table S4.3;

(c) the annual production/treatment set out in schedule 4 table S4.2;

(d) the topographical surveys required by condition 3.5.3 other than those submitted as part of a CQA validation report;

(e) the volumetric difference (reported in cubic metres) between the most recent topographical survey and the previous annual topographical survey i.e. the additional volume of the landfill void that is occupied by waste;

(f) an assessment of the settlement behaviour of the landfill body based on the difference between the most recent topographical survey and previous annual topographical survey for the areas of the landfill which did not receive waste between the surveys;

(g) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey;

(h) a plan(s) ('the monitoring and extraction point plan – MEPP') showing the locations of existing and any new leachate and landfill gas extraction and all monitoring points.

4.2.3 For the following activities referenced in schedule 1, table S1.1 (AR3 to AR8 and A16) a report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31st January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

(a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;

(b) the annual production/treatment data set out in schedule 4 table S4.2; and

(c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

4.2.4 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

(a) in respect of the parameters and emission points specified in schedule 4 table S4.1;

(b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and

(c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.5 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.2.6 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

4.3.1 In the event:

(a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—

(i) inform the Environment Agency,

(ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and

(iii) take the measures necessary to prevent further possible incidents or accidents.

(b) in the event of a breach of any permit condition the operator must immediately—

(i) inform the Environment Agency, and

(ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;

(c) in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 For the following activities referenced in schedule 1, table S1.1 (AR3 to AR8 and AR16) where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

(a) any change in the operator's trading name, registered name or registered office address; and

(b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

(a) any change in the operator's name or address; and

(b) any steps taken with a view to the dissolution of the operator.

In any other case:

(a) the death of any of the named operators (where the operator consists of more than one named individual);

(b) any change in the operator's name(s) or address(es); and

(c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

(a) the Environment Agency shall be notified at least 14 days before making the change; and

(b) the notification shall contain a description of the proposed change in operation.

4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities				
Activity reference	**WFD Annex I and II operations (where applicable)**	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity**	**Limits of specified activity**
AR1	D5 –Specially engineered landfill; R5 - the recycling or reclamation of inorganic material and R10 – Land treatment resulting in benefit to agriculture or ecology	Section 5.2 Part A(1) (a), The disposal of waste in a landfill.	Landfill for non-hazardous waste and landfill restoration.	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions 2.7, as an integral part of landfilling.
AR2	D8 – Biological treatment of waste	Section 5.4, Part A(1)(a)(i), Biological treatment of non-hazardous waste.	Treatment of leachate in a facility with a capacity of >50 tonnes/day.	Leachate arising from the landfill.
AR3	D8 – Biological treatment of waste and R5 - the recycling or reclamation of inorganic material	Section 5.3 Part A(1)(a)(ii)	Bioremediation process for hazardous waste.	A maximum treatment capacity of 38,000 tonnes at any one time. Hazardous waste types and quantities as specified in table S2.3b.
AR4	D8 – Biological treatment of waste and R5 - the recycling or reclamation of inorganic material	Section 5.4 Part A(1)(b)(i), Biological treatment of non-hazardous waste.	Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving biological treatment.	A maximum treatment capacity of 38,000 tonnes at any one time. Non-hazardous waste types and quantities as specified in table S2.3b.

Table S1.1 activities				
AR5	D8 – Biological treatment of waste and R5 - the recycling or reclamation of inorganic material	Section 5.3 Part A(1)(a)(ii)	Screening to remove oversize material.	A maximum treatment capacity of 38,000 tonnes at any one time. Hazardous waste types and quantities as specified in table S2.3a.
AR6	R13 - Storage of waste pending any of the operations numbered R1 to R12	Section 5.6 Part A(1)(a)	Temporary storage of hazardous waste.	A maximum of 38,000 tonnes at any one time on site for wastes due to undergo treatment as per Activities AR3, AR4, AR5 or AR7. All storage shall take place on an impermeable surface with a sealed drainage system. No more than 38,000 tonnes of hazardous waste shall be stored in aggregate. Soil impacted with visible asbestos shall be stored in a way that minimises asbestos fibre emissions such as spraying and sheeting. Hazardous waste types and quantities as specified in table S2.3a, S2.3b and S2.4.

AR7	R5 - the recycling or reclamation of inorganic material	Section 5.3 Part A(1)(a)(vi) Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico-chemical treatment.	Recovery of soils impacted with identifiable pieces of bonded asbestos by separation.	From treatment of soils impacted with identifiable pieces of bonded asbestos, by handpicking of bonded asbestos only, or by 3-way screener into oversize, medium size and silt-sized fractions prior to handpicking of bonded asbestos from fractions containing visible bonded asbestos, to storage of recovered soils and separated bonded asbestos. Screening and handpicking shall take place on an impermeable surface with a sealed drainage system. The screener shall be in an enclosed building with an abated air extraction system as described in in 'Requirements for Enclosed Building' listed in Table S1.2. Handpicking shall take place in a dedicated enclosed picking line. No more than 38,000 tonnes at any one time of soils impacted with identifiable pieces of bonded asbestos shall be treated (in aggregate). The screening and handpicking of asbestos wastes shall not increase the asbestos fibre load in the waste. Screened soil impacted with visible asbestos shall be stored in a way that minimises asbestos fibre emissions such as spraying and sheeting. Separated bonded asbestos fragments shall be bagged whilst handpicking is in progress. Once handpicked asbestos shall be stored double bagged in sealed, closed and locked containers. Treated waste shall be stored for no longer than 6 months prior to transfer off-site or to the landfill as restoration soil.

Table S1.1 activities				
				No more than 10 tonnes of picked asbestos shall be stored on site. No more than 38,000 tonnes of treated soils shall be stored on site at any one time. Non-hazardous treated soils shall be kept separate from hazardous soils. Waste types (soil wastes only) and quantities as specified in schedule 2, table S2.4.
AR8	R5 - the recycling or reclamation of inorganic material	Section 5.4 Part A (1)(a)(ii) Physico-chemical treatment of non-hazardous waste with a capacity exceeding 50 tonnes per day.	Screening of non-hazardous waste to remove oversized material for recovery.	Non-hazardous waste following treatment on site by Activity AR4. Non-hazardous waste types and quantities as specified in table S2.3b.
Directly Associated Activities				
AR9	R1 – use principally as a fuel to generate energy		Pre-treatment and utilisation of landfill gas for energy recovery in an appliance with a rated thermal input < 50MW.	Treatment and utilisation of landfill gas arising from the landfill.
AR10	N/A		Temporary storage of waste (leachate).	Leachate arising from the landfill.
AR11	N/A		Flaring of landfill gas for disposal in an appliance.	Landfill gas arising from the landfill.
AR12	D6 – release to water body except seas/ oceans		Discharges of site drainage from the landfill.	From surface water management system to point of entry to controlled waters.
AR13	N/A		Fuel Storage.	Storage of diesel for use in mobile plant at Soil Treatment Facility.
AR14	N/A		Water Storage.	Collection and storage of process water.

Table S1.1 activities				
AR15	N/A		Pipework between the leachate treatment plant and public sewerage system.	From the point of discharge from the leachate treatment plant to the point where the pipework leaves the land under the control of the operator.
AR16	R13 – Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)		Storage of waste.	Temporary storage of non-hazardous waste prior to treatment on site.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	The response to questions 1.2, 2.1, 2.2, 2.3, 2.4 and 2.5 in part B of the Application Form, excluding the following sections: 2.2.4 to 2.2.6, 2.3.32, 2.3.33, 2.3.34, 2.3.35, 2.3.39, 2.3.43, 2.3.50 to 2.3.54, 2.3.68, 2.3.69, 2.3.71, 2.3.72 and 2.3.78	09/10/2003
SLR letter and supporting documents regarding requests for information dated 17/06/2004.	All Parts	19/07/2004
SLR letter and supporting documents regarding requests for information dated 06/07/2004.	All Parts	20/07/2004
SLR letter and supporting documents regarding requests for information dated 25/08/2004.	All Parts	11/10/2004
SLR e-mail and supporting documents regarding revised waste list.	All Parts	14/01/2005
SLR e-mail and supporting documents All parts 14/01/2005 and 27/01/2005 regarding requests for information dated 30/12/2004.	All Parts	28/02/2006
Correspondence dated 27/02/2006 re: 27/02/2006 re: Improvement condition 1.4.1.1	All Parts	28/02/2006
Correspondence dated 03/04/2006 re: Improvement condition 1.4.1.2	All Parts	03/04/2006
Correspondence dated 01/03/2006 re: Improvement condition 1.4.1.3	All Parts	06/03/2006
Correspondence dated 15/02/2006, (ref: 404- 0197-00178) re: Improvement condition 1.4.1.5	All Parts	16/02/2006
Correspondence dated 02/2006 (ref 404-0197-00178), CQA plan for downstream monitoring wells)	All Parts	02/2006
Correspondence dated 06/04/2006 (ref:402.0197.00423) re: Improvement condition 1.4.1.7	All Parts	12/04/2006
Correspondence dated 13/04/2006 (ref: 404.0197.00178) Re: improvement condition 1.4.1.9	All Parts	18/04/2006
Correspondence dated 15/03/2005 (ref: 4D-197-178) re improvement condition 1.4.1.12	All Parts	21/05/2005

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Correspondence 'Maw Green Leachate Extraction Review' re improvement condition 1.4.1.13	All parts	06/2006
Revised monitoring location plan (drawing no. ESID 14, dated August 2007)	All parts	22/01/2008
Monitoring reduction letter Ref ALM/MG/EAL53	All Parts	22/01/2014
FCC letter ref MG/LC2.2AR/ 20140829	All Parts	29/08/2014
FCC Document E mail from FCC 29 Jan 2016Attached updated tables for Doc ref: ALM/MG/EAL53	All Parts	29/01/2015
Landfill Restoration Plan (referenced report 10228-R07 and dated May 2017)	All Parts	15/05/2017
Application	Application Forms (All Parts) ESID Amendment Site Condition Report (referenced 3695-CAU-XX-XX-RP-V-0305.A0-C2 and dated March 2019) Soil Treatment Facility Amenity and Accident Plan (referenced 3695-CAU-XX-XX-RP-V-0302.A0-C2 and dated March 2019)	01/04/2019
Response to Schedule 5 Notice (1) dated 23/08/2019	Soil Treatment Facility Dust Management Plan (reference 3695-CAU-XX-XX-RP-V-0307-A0-C1 and dated October 2019) Soil Treatment Facility Operating Techniques (reference 3695-CAU-XX-XX-RP-V-0303 and dated October 2019) Response includes clarification on area drainage, clarification on waste codes and biofilter/air quality monitoring details.	02/10/2019
Response to Schedule 5 Notice (2) follow up request dated 22/11/2019 and 02/01/2020	STC Soil Characterisation Procedure (referenced WI-003) and dated 26/11/2019) Response includes further detail on waste code acceptance, biofilter and air quality monitoring.	13/12/2019
	Soil Treatment Facility Odour Management Plan (reference 3695-CAU-XX-XX-RP-V-0308-	10/01/2020

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
	A0-C3 OMP Combined and dated December 2019)	
Response to request for more information dated 20/01/2020	Drawings Leachate Pipeline Route (ref. 3695-CAU-XX-XX-DR-V-1802 P1) and Proposed Layout Plan (ref. 3695-CAU-XX-XX-DR-V-1801 P3) detailing sewer connections to site and proposed monitoring locations respectively.	12/02/2020
Response to Improvement Condition 4	H1 Assessment (referenced 5193-CAU-XX-XX-RP-V-0308.A0.C1 Final and dated November 2021)	08/11/2021
Application	Application Forms (All Parts) Updated Supporting Document (reference 5193-CAU-XX-XX-RP-V-0300.A0.C1 and dated December 2021) Updated Amenity and Accident Plan (reference 5193-CAU-XX-XX-RP-V-0301-A0.C1 and dated December 2021) Addendum to ESID Report (referenced 5193-CAU-XX-XX-RP-V-0302-A0.C1 and dated December 2021) Updated Operating Techniques Document (referenced 5193-CAU-XX-XX-RP-V-0306.A0.C1 and dated December 2021) Updated BAT Review (referenced 5193-CAU-XX-XX-RP-V-0307.A0.C1 and dated December 2021)	15/12/2021
Application EPR/BS7722ID/V009	Documents received in response to Section 3a of form Part C3: Treatment process & BAT review - reference 10012023, excluding all references to mechanical screener that is not enclosed. • Dust & Emissions Management Plan (Document Ref: 5193-CAU-XX-XX-RP-V-0313.A0.C1), excluding all references to mechanical screener that is not enclosed. • Environmental Setting and Installation Design (ESID) - Addendum 2022 (Document Ref: 5193-CAU-XX-XX-RP-V-0309.A0.C1), excluding all reference to mechanical screener that is not enclosed. Amenity & Accidents Risk Assessment (Document Ref: 5193-CAU-XX-XX-RP-	10/01/2023

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
	V-0310.A0.C1), excluding all references to mechanical screener that is not enclosed. Activities & Operating Techniques Report (Document Ref: 5193-CAU-XX-XX-RP-V-0311.A0.C1), excluding all references to mechanical screener that is not enclosed	
Description - Chemical waste: appropriate measures for permitted facilities Version published 18 November 2020	Parts: All parts of the appropriate measures guidance shall apply.	05/10/2023
Appeal submission 30 April 2024	Plan 3982-CAU-XX-XX-DR-V-1815_S2-P01 'TREATMENT PAD DESIGN DETAIL' to replace the use of a crushed concrete surface where proposed previously.	30/04/2024
Appeal submission 08 May 2024	Plans 5193-CAU-XX-XX-DR-1810_S2-P01 'PROPOSED MONITORING PLAN – PAD 1' and 5193-CAU-XX-XX-DR-1806_S2-P02 'PROPOSED MONITORING PLAN – PAD 2' regarding revised monitoring locations.	08/05/2024
Appeal submission 20 May 2024	Requirements for Enclosed Building, document reference 3982-CAU-XX-XX-RP-V-0311.	20/05/2024

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
4	(b) The operator shall submit to the Environment Agency in writing for approval, a report detailing monthly chemical analysis monitoring results of collected waters from the Soil Treatment Facility (STF) at the point of discharge from the STF. The report should contain details of comparison of results from the chemical analysis to existing discharge consent limits and the Environment Agency's H1 Guidance.	Complete
5	The operator shall provide a report on the monitoring undertaken as part of the sampling of the incoming waste and the separated wastes streams, from the operation of the asbestos screening process over 4 months of operation, for approval by the Environment Agency. The sampling report shall: • detail the method(s) used to sample and analyse the treated waste streams for asbestos fibres;	Within 6 months of completion of commissioning

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	• demonstrate a high percentile level of confidence in the treatment process taking account of the amount of waste treated per batch and the number of samples required to adequately sample each waste stream, both initially and on an ongoing basis; • demonstrate that additional asbestos fibre contamination is not being created by the screening process. • recommend any additional measures to be undertaken to ensure compliance with the permit conditions. The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission of the plan. The operator shall implement the additional measures as approved, and from the date stipulated by, the Environment Agency.	

Table S1.4 Pre-operational measures for future development		
Reference	**Operation**	**Pre-operational Measures**
1	Deposit of wastes in any area of the Permitted installation where waste deposit commences after the issue of the permit	As part of any construction proposals required by condition 2.5.1 the operator shall include a design for leachate collection infrastructure, which includes details of the leachate collection layer, drainage pipework, collection systems and drilling targets.
2	Deposit of waste over previously completed areas of phase 1	A leachate drainage layer shall be incorporated into the design of the internal slope between phase 1 and future phases. The design specification of this layer shall be approved in accordance with condition 2.5.1.
3	Engineering of any new cell	As part of any construction proposals required by condition 2.5.1, the operator shall submit a report investigating the existence of sand horizons beneath the cell base. The report shall detail the thickness of any encountered sand horizon, the presence of groundwater including the piezometric head and shall also include an assessment into the possibility of basal heave and any necessary preventative action required for the cell, together with any required amendments to CQA procedures for engineering at the site. If in the preparation of the report, extra intrusive site investigation is undertaken, the report shall contain all relevant borehole logs and descriptions.
4	Operation of the mechanical screener for treatment of asbestos impacted wastes	Prior to the use of the mechanical screener for the pre-screening of asbestos contaminated soils under activity reference AR7 a report shall be submitted for written approval detailing the following aspects: • Evidence to demonstrate that the mechanical screener is located in a fully enclosed building as set out in 'Requirements for Enclosed Building' listed in Table S1.2 and all dust emissions from the building screening operation are directed to an emission point via an active abatement system with a HEPA filter or other suitable design. • Details of the proposed commissioning, operational and maintenance procedures associated with the mechanical screener, building and active abatement system to be implemented on site. • Details of monitoring checks, audits and emergency procedures to be implemented on site to ensure both the mechanical screener, building and active abatement system are fully operational and working as designed.

Table S1.4 Pre-operational measures for future development		
Reference	**Operation**	**Pre-operational Measures**
		No mechanical pre-screening of asbestos contaminated soils under activity reference AR7 shall commence unless the Environment Agency has given prior approval under this condition.

Table S1.5 Annual waste input limits	
Category	**Limit Tonnes/ Year**
Non-hazardous waste	450,000
Inert waste	450,000
Waste for restoration	75,000

Schedule 2 – List of permitted wastes

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
01	**Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals**
01 01	**wastes from mineral excavation**
01 01 01	wastes from mineral metalliferous excavation
01 01 02	wastes from mineral non-metalliferous excavation
01 03	**wastes from physical and chemical processing of metalliferous minerals**
01 03 06	tailings other than those mentioned in 01 03 04 and 01 03 05
01 03 08	dusty and powdery wastes other than those mentioned in 01 03 07
01 03 09	red mud from alumina production other than the wastes mentioned in 01 03 10
01 04	**wastes from physical and chemical processing of non-metalliferous minerals**
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
01 04 10	dusty and powdery wastes other than those mentioned in 01 04 07
01 04 11	wastes from potash and rock salt processing other than those mentioned in 01 04 07
01 04 12	tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11
01 04 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07
01 05	**drilling muds and other drilling wastes**
01 05 04	freshwater drilling muds and wastes
01 05 07	barite-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06
01 05 08	chloride-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06
02	**Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing**
02 01	**wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing**
02 01 01	sludges from washing and cleaning
02 01 02	animal-tissue waste
02 01 03	plant-tissue waste
02 01 04	waste plastics (except packaging)
02 01 06	animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site
02 01 07	wastes from forestry
02 01 09	agrochemical waste other than those mentioned in 02 01 08
02 01 10	waste metal
02 02	**wastes from the preparation and processing of meat, fish and other foods of animal origin**

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
02 02 01	sludges from washing and cleaning
02 02 02	animal-tissue waste
02 02 03	materials unsuitable for consumption or processing
02 02 04	sludges from on-site effluent treatment
02 03	**wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation**
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation
02 03 02	wastes from preserving agents
02 03 03	wastes from solvent extraction
02 03 04	materials unsuitable for consumption or processing
02 03 05	sludges from on-site effluent treatment
02 04	**wastes from sugar processing**
02 04 01	soil from cleaning and washing beet
02 04 02	off-specification calcium carbonate
02 04 03	sludges from on-site effluent treatment
02 05	**wastes from the dairy products industry**
02 05 01	materials unsuitable for consumption or processing
02 05 02	sludges from on-site effluent treatment
02 06	**wastes from the baking and confectionery industry**
02 06 01	materials unsuitable for consumption or processing
02 06 02	wastes from preserving agents
02 06 03	sludges from on-site effluent treatment
02 07	**wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)**
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	wastes from spirits distillation
02 07 03	wastes from chemical treatment
02 07 04	materials unsuitable for consumption or processing
02 07 05	sludges from on-site effluent treatment
03	**Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard**
03 01	**wastes from wood processing and the production of panels and furniture**
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	**wastes from pulp, paper and cardboard production and processing**
03 03 01	waste bark and wood
03 03 02	green liquor sludge (from recovery of cooking liquor)
03 03 05	de-inking sludges from paper recycling

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
03 03 09	lime mud waste
03 03 10	fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
03 03 11	sludges from on-site effluent treatment other than those mentioned in 03 03 10
04	**Wastes from the leather, fur and textile industries**
04 01	**wastes from the leather and fur industry**
04 01 01	fleshings and lime split wastes
04 01 02	liming waste
04 01 06	sludges, in particular from on-site effluent treatment containing chromium
04 01 07	sludges, in particular from on-site effluent treatment free of chromium
04 01 08	waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
04 01 09	wastes from dressing and finishing
04 02	**wastes from the textile industry**
04 02 09	wastes from composite materials (impregnated textile, elastomer, plastomer)
04 02 10	organic matter from natural products (for example grease, wax)
04 02 15	wastes from finishing other than those mentioned in 04 02 14
04 02 17	dyestuffs and pigments other than those mentioned in 04 02 16
04 02 20	sludges from on-site effluent treatment other than those mentioned in 04 02 19
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
05	**Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal**
05 01	**wastes from petroleum refining**
05 01 10	sludges from on-site effluent treatment other than those mentioned in 05 01 09
05 01 13	boiler feedwater sludges
05 01 14	wastes from cooling columns
05 01 16	sulphur-containing wastes from petroleum desulphurisation
05 01 17	bitumen
05 06	**wastes from the pyrolytic treatment of coal**
05 06 04	waste from cooling columns
05 07	**wastes from natural gas purification and transportation**
05 07 02	wastes containing sulphur
06	**Wastes from inorganic chemical processes**
06 03	**wastes from the MFSU of salts and their solutions and metallic oxides**
06 03 14	solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13
06 03 16	metallic oxides other than those mentioned in 06 03 15
06 05	**sludges from on-site effluent treatment**

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
06 05 03	sludges from on-site effluent treatment other than those mentioned in 06 05 02
06 06	**wastes from the MFSU of sulphur chemicals, sulphur chemical processes and desulphurisation processes**
06 06 03	wastes containing sulphides other than those mentioned in 06 06 02
06 09	**wastes from the MSFU of phosphorous chemicals and phosphorous chemical processes**
06 09 02	phosphorous slag
06 09 04	calcium-based reaction wastes other than those mentioned in 06 09 03
06 11	**wastes from the manufacture of inorganic pigments and opacificiers**
06 11 01	calcium-based reaction wastes from titanium dioxide production
06 13	**wastes from inorganic chemical processes not otherwise specified**
06 13 03	carbon black
07	**Wastes from organic chemical processes**
07 01	**wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals**
07 01 12	sludges from on-site effluent treatment other than those mentioned in 07 01 11
07 02	**wastes from the MFSU of plastics, synthetic rubber and man-made fibres**
07 02 12	sludges from on-site effluent treatment other than those mentioned in 07 02 11
07 02 13	waste plastic
07 02 15	wastes from additives other than those mentioned in 07 02 14
07 02 17	waste containing silicones other than those mentioned in 07 02 16
07 03	**wastes from the MFSU of organic dyes and pigments (except 06 11)**
07 03 12	sludges from on-site effluent treatment other than those mentioned in 07 03 11
07 04	**wastes from the MFSU of organic plant protection products (except 02 01 08 and 02 01 09), wood preserving agents (except 03 02) and other biocides**
07 04 12	sludges from on-site effluent treatment other than those mentioned in 07 04 11
07 05	**wastes from the MFSU of pharmaceuticals**
07 05 12	sludges from on-site effluent treatment other than those mentioned in 07 05 11
07 05 14	solid wastes other than those mentioned in 07 05 13
07 06	**wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics**
07 06 12	sludges from on-site effluent treatment other than those mentioned in 07 06 11
07 07	**wastes from the MFSU of fine chemicals and chemical products not otherwise specified**
07 07 12	sludges from on-site effluent treatment other than those mentioned in 07 07 11
08	**Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks**
08 01	**wastes from MFSU and removal of paint and varnish**
08 01 12	waste paint and varnish other than those mentioned in 08 01 11
08 01 14	sludges from paint or varnish other than those mentioned in 08 01 13

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
08 01 16	aqueous sludges containing paint or varnish other than those mentioned in 08 01 15
08 01 18	wastes from paint or varnish removal other than those mentioned in 08 01 17
08 02	**wastes from MFSU of other coatings (including ceramic materials)**
08 02 01	waste coating powders
08 02 02	aqueous sludges containing ceramic materials
08 03	**wastes from MFSU of printing inks**
08 03 07	aqueous sludges containing ink
08 03 13	waste ink other than those mentioned in 08 03 12
08 03 15	ink sludges other than those mentioned in 08 03 14
08 03 18	waste printing toner other than those mentioned in 08 03 17
08 04	**wastes from MFSU of adhesives and sealants (including water proofing products)**
08 04 10	waste adhesives and sealants other than those mentioned in 08 04 09
08 04 12	adhesive and sealant sludges other than those mentioned in 08 04 11
08 04 14	aqueous sludges containing adhesives or sealants other than those mentioned in 08 04 13
09	**Wastes from the photographic industry**
09 01	**wastes from the photographic industry**
09 01 07	photographic film and paper containing silver or silver compounds
09 01 08	photographic film and paper free of silver or silver compounds
09 01 10	single-use cameras without batteries
09 01 12	single-use cameras containing batteries other than those mentioned in 09 01 11
10	**Wastes from thermal processes**
10 01	**wastes from power stations and other combustion plants (except 19)**
10 01 01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 02	coal fly ash
10 01 03	fly ash from peat and untreated wood
10 01 05	calcium-based reaction wastes from flue-gas desulphurisation in solid form
10 01 07	calcium-based reaction wastes from flue-gas desulphurisation in sludge form
10 01 15	bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
10 01 17	fly ash from co-incineration other than those mentioned in 10 01 16
10 01 19	wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
10 01 21	sludges from on-site effluent treatment other than those mentioned in 10 01 20
10 01 23	aqueous sludges from boiler cleansing other than those mentioned in 10 01 22
10 01 24	sands from fluidised beds
10 01 25	wastes from fuel storage and preparation of coal-fired power plants
10 01 26	wastes from cooling-water treatment

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
10 02	**wastes from the iron and steel industry**
10 02 01	wastes from the processing of slag
10 02 02	unprocessed slag
10 02 08	solid wastes from gas treatment other than those mentioned in 10 02 07
10 02 10	mill scales
10 02 12	wastes from cooling-water treatment other than those mentioned in 10 02 11
10 02 14	sludges and filter cakes from gas treatment other than those mentioned in 10 02 13
10 02 15	other sludges and filter cakes
10 03	**wastes from aluminium thermal metallurgy**
10 03 02	anode scraps
10 03 05	waste alumina
10 03 16	skimmings other than those mentioned in 10 03 15
10 03 18	carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17
10 03 20	flue-gas dust other than those mentioned in 10 03 19
10 03 22	other particulates and dust (including ball-mill dust) other than those mentioned in 10 03 21
10 03 24	solid wastes from gas treatment other than those mentioned in 10 03 23
10 03 26	sludges and filter cakes from gas treatment other than those mentioned in 10 03 25
10 03 28	wastes from cooling-water treatment other than those mentioned in 10 03 27
10 03 30	wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29
10 04	**wastes from lead thermal metallurgy**
10 04 10	wastes from cooling-water treatment other than those mentioned in 10 04 09
10 05	**wastes from zinc thermal metallurgy**
10 05 01	slags from primary and secondary production
10 05 04	other particulates and dust
10 05 09	wastes from cooling-water treatment other than those mentioned in 10 05 08
10 05 11	dross and skimmings other than those mentioned in 10 05 10
10 06	**wastes from copper thermal metallurgy**
10 06 01	slags from primary and secondary production
10 06 02	dross and skimmings from primary and secondary production
10 06 04	other particulates and dust
10 06 10	wastes from cooling-water treatment other than those mentioned in 10 06 09
10 07	**wastes from silver, gold and platinum thermal metallurgy**
10 07 01	slags from primary and secondary production
10 07 02	dross and skimmings from primary and secondary production
10 07 03	solid wastes from gas treatment
10 07 04	other particulates and dust

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
10 07 05	sludges and filter cakes from gas treatment
10 07 08	wastes from cooling-water treatment other than those mentioned in 10 07 07
10 08	**wastes from other non-ferrous thermal metallurgy**
10 08 04	particulates and dust
10 08 09	other slags
10 08 11	dross and skimmings other than those mentioned in 10 08 10
10 08 13	carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12
10 08 14	anode scrap
10 08 16	flue-gas dust other than those mentioned in 10 08 15
10 08 18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 08 17
10 08 20	wastes from cooling-water treatment other than those mentioned in 10 08 19
10 09	**wastes from casting of ferrous pieces**
10 09 03	furnace slag
10 09 06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
10 09 08	casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07
10 09 10	flue-gas dust other than those mentioned in 10 09 09
10 09 12	other particulates other than those mentioned in 10 09 11
10 09 14	waste binders other than those mentioned in 10 09 13
10 09 16	waste crack-indicating agent other than those mentioned in 10 09 15
10 10	**wastes from casting of non-ferrous pieces**
10 10 03	furnace slag
10 10 06	casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 05
10 10 08	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07
10 10 10	flue-gas dust other than those mentioned in 10 10 09
10 10 12	other particulates other than those mentioned in 10 10 11
10 10 14	waste binders other than those mentioned in 10 10 13
10 10 16	waste crack-indicating agent other than those mentioned in 10 10 15
10 11	**wastes from manufacture of glass and glass products**
10 11 03	waste glass-based fibrous materials
10 11 05	particulates and dust
10 11 10	waste preparation mixture before thermal processing, other than those mentioned in 10 11 09
10 11 12	waste glass other than those mentioned in 10 11 11
10 11 14	glass-polishing and -grinding sludge other than those mentioned in 10 11 13

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
10 11 16	solid wastes from flue-gas treatment other than those mentioned in 10 11 15
10 11 18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 11 17
10 11 20	solid wastes from on-site effluent treatment other than those mentioned in 10 11 19
10 12	**wastes from manufacture of ceramic goods, bricks, tiles and construction products**
10 12 01	waste preparation mixture before thermal processing
10 12 03	particulates and dust
10 12 05	sludges and filter cakes from gas treatment
10 12 06	discarded moulds
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
10 12 10	solid wastes from gas treatment other than those mentioned in 10 12 09
10 12 12	wastes from glazing other than those mentioned in 10 12 11
10 12 13	sludge from on-site effluent treatment
10 13	**wastes from manufacture of cement, lime and plaster and articles and products made from them**
10 13 01	waste preparation mixture before thermal processing
10 13 04	wastes from calcination and hydration of lime
10 13 06	particulates and dust (except 10 13 12 and 10 13 13)
10 13 07	sludges and filter cakes from gas treatment
10 13 10	wastes from asbestos-cement manufacture other than those mentioned in 10 13 09
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 13	solid wastes from gas treatment other than those mentioned in 10 13 12
10 13 14	waste concrete and concrete sludge
11	**Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydro-metallurgy**
11 01	**wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)**
11 01 10	sludges and filter cakes other than those mentioned in 11 01 09
11 01 14	degreasing wastes other than those mentioned in 11 01 13
11 02	**wastes from non-ferrous hydrometallurgical processes**
11 02 03	wastes from the production of anodes for aqueous electrolytical processes
11 02 06	wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05
11 05	**wastes from hot galvanising processes**
11 05 01	hard zinc
11 05 02	zinc ash
12	**Wastes from shaping and physical and mechanical surface treatment of metals and plastics**

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
12 01	**wastes from shaping and physical and mechanical surface treatment of metals and plastics**
12 01 01	ferrous metal filings and turnings
12 01 02	ferrous metal dust and particles
12 01 03	non-ferrous metal filings and turnings
12 01 04	non-ferrous metal dust and particles
12 01 05	plastics shavings and turnings
12 01 13	welding wastes
12 01 15	machining sludges other than those mentioned in 12 01 14
12 01 17	waste blasting material other than those mentioned in 12 01 16
12 01 21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20
15	**Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified**
15 01	**packaging (including separately collected municipal packaging waste)**
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 07	glass packaging
15 01 09	textile packaging
15 02	**absorbents, filter materials, wiping cloths and protective clothing**
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16	**Wastes not otherwise specified in the list**
16 01	**end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)**
16 01 03	end-of-life tyres
16 01 12	brake pads other than those mentioned in 16 01 11
16 01 17	ferrous metal
16 01 18	non-ferrous metal
16 01 19	plastic
16 01 20	glass
16 02	**wastes from electrical and electronic equipment**
16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13
16 02 16	components removed from discarded equipment other than those mentioned in 16 02 15

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
16 03	**off-specification batches and unused products**
16 03 04	inorganic wastes other than those mentioned in 16 03 03
16 03 06	organic wastes other than those mentioned in 16 03 05
16 08	**spent catalysts**
16 08 01	spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07)
16 08 03	spent catalysts containing transition metals or transition metal compounds not otherwise specified
16 11	**waste linings and refractories**
16 11 02	carbon-based linings and refractories from metallurgical processes others than those mentioned in 16 11 01
16 11 04	other linings and refractories from metallurgical processes other than those mentioned in 16 11 03
16 11 06	linings and refractories from non-metallurgical processes others than those mentioned in 16 11 05
17	**Construction and demolition wastes (including excavated soil from contaminated sites)**
17 01	**concrete, bricks, tiles and ceramics**
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	**wood, glass and plastic**
17 02 01	wood
17 02 02	glass
17 02 03	plastic
17 03	**bituminous mixtures, coal tar and tarred products**
17 03 02	bituminous mixtures other than those mentioned in 17 03 01
17 04	**metals (including their alloys)**
17 04 01	copper, bronze, brass
17 04 02	aluminium
17 04 03	lead
17 04 04	zinc
17 04 05	iron and steel
17 04 06	tin
17 04 07	mixed metals
17 04 11	cables other than those mentioned in 17 04 10
17 05	**soil (including excavated soil from contaminated sites), stones and dredging spoil**
17 05 04	soil and stones other than those mentioned in 17 05 03

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
17 05 06	dredging spoil other than those mentioned in 17 05 05
17 05 08	track ballast other than those mentioned in 17 05 07
17 06	**insulation materials and asbestos-containing construction materials**
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 09	**other construction and demolition wastes**
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
18	**Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)**
18 01	**wastes from natal care, diagnosis, treatment or prevention of disease in humans**
18 01 04	wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)
18 02	**wastes from research, diagnosis, treatment or prevention of disease involving animals**
18 02 03	wastes whose collection and disposal is not subject to special requirements in order to prevent infection
18 02 06	chemicals other than those mentioned in 18 02 05
19	**Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use**
19 01	**wastes from incineration or pyrolysis of waste**
19 01 02	ferrous materials removed from bottom ash
19 01 12	bottom ash and slag other than those mentioned in 19 01 11
19 01 14	fly ash other than those mentioned in 19 01 13
19 01 16	boiler dust other than those mentioned in 19 01 15
19 01 18	pyrolysis wastes other than those mentioned in 19 01 17
19 01 19	sands from fluidised beds
19 02	**wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)**
19 02 03	premixed wastes composed only of non-hazardous wastes
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09
19 03	**stabilised/solidified wastes**
19 03 05	stabilised wastes other than those mentioned in 19 03 04
19 03 07	solidified wastes other than those mentioned in 19 03 06
19 04	**vitrified waste and wastes from vitrification**
19 04 01	vitrified waste
19 05	**wastes from aerobic treatment of solid wastes**
19 05 01	non-composted fraction of municipal and similar wastes
19 05 02	non-composted fraction of animal and vegetable waste

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
19 05 03	off-specification compost
19 06	**wastes from anaerobic treatment of waste**
19 06 04	digestate from anaerobic treatment of municipal waste
19 06 06	digestate from anaerobic treatment of animal and vegetable waste
19 08	**wastes from waste water treatment plants not otherwise specified**
19 08 01	screenings
19 08 02	waste from desanding
19 08 05	sludges from treatment of urban waste water
19 08 09	grease and oil mixture from oil/water separation containing only edible oil and fats
19 08 12	sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11
19 08 14	sludges from other treatment of industrial waste water other than those mentioned in 19 08 13
19 09	**wastes from the preparation of water intended for human consumption or water for industrial use**
19 09 01	solid waste from primary filtration and screenings
19 09 02	sludges from water clarification
19 09 03	sludges from decarbonation
19 09 04	spent activated carbon
19 09 05	saturated or spent ion exchange resins
19 09 06	solutions and sludges from regeneration of ion exchangers
19 10	**wastes from shredding of metal-containing wastes**
19 10 01	iron and steel waste
19 10 02	non-ferrous waste
19 10 04	fluff-light fraction and dust other than those mentioned in 19 10 03
19 10 06	other fractions other than those mentioned in 19 10 05
19 11	**wastes from oil regeneration**
19 11 06	sludges from on-site effluent treatment other than those mentioned in 19 11 05
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 01	paper and cardboard
19 12 02	ferrous metal
19 12 03	non-ferrous metal
19 12 04	plastic and rubber
19 12 05	glass
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 09	minerals (for example sand, stones)
19 12 10	combustible waste (refuse derived fuel)

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
19 13	**wastes from soil and groundwater remediation**
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03
19 13 06	sludges from groundwater remediation other than those mentioned in 19 13 05
20	**Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions**
20 01	**separately collected fractions (except 15 01)**
20 01 01	paper and cardboard
20 01 02	glass
20 01 08	biodegradable kitchen and canteen waste
20 01 10	clothes
20 01 11	textiles
20 01 25	edible oil and fat
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27
20 01 30	detergents other than those mentioned in 20 01 29
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 40	metals
20 01 41	wastes from chimney sweeping
20 02	**garden and park wastes (including cemetery waste)**
20 02 01	biodegradable waste
20 02 02	soil and stones
20 02 03	other non-biodegradable wastes
20 03	**other municipal wastes**
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 03	street-cleaning residues
20 03 04	septic tank sludge
20 03 06	waste from sewage cleaning
20 03 07	bulky waste

Table S2.2 Permitted waste types for restoration	
Waste code	**Description**
01	**Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals**
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
02	**Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing**
02 04	wastes from sugar processing
02 04 01	soil from cleaning and washing beet
03	**Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard**
03 03	wastes from pulp, paper and cardboard production and processing
03 03 05	de-inking sludges from paper recycling
03 03 09	lime mud waste
17	**Construction and demolition wastes (including excavated soil from contaminated sites)**
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 06	dredging spoil other than those mentioned in 17 05 05
19	**Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use**
19 05	wastes from aerobic treatment of solid wastes
19 05 03	off-specification compost
19 08	wastes from waste water treatment plants not otherwise specified
19 08 05	sludges from treatment of urban waste water
19 09	wastes from the preparation of water intended for human consumption or water for industrial use
19 09 02	sludges from water clarification
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 09	minerals (for example sand, stones)
19 13	wastes from soil and groundwater remediation
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03
20	**Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions**
20 02	garden and park wastes (including cemetery waste)
20 02 02	soil and stones

Table S2.3a Permitted waste types for Physico-Chemical Treatment (Activity A5 in Table S1.1) at Soil Treatment Facility	
Maximum Quantity	**Annual throughput shall not exceed 50,000 tonnes for activities AR3, AR4, AR5, AR6, AR7, AR8, AR16**
Waste code	**Description**
01	**Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals**
01 04	**wastes from physical and chemical processing of non-metalliferous minerals**
01 04 09	waste sand and clays
01 05	**Drilling muds and other wastes**
01 05 05*	oil-containing drilling muds and wastes
01 05 06*	drilling muds and other drilling wastes containing hazardous substances
05	**Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal**
05 01	**wastes from petroleum refining**
05 01 05*	oil spills
13	**Oil wastes and wastes of liquid fuels (except edible oils, and those in chapters 05, 12 and 19)**
13 05	**Oil/water separator contents**
13 05 01*	solids from grit chambers and oil/water separators
13 05 02*	sludges from oil/water separators
13 05 03*	interceptor sludges
13 05 08*	mixtures of wastes from grit chambers and oil/water separators
17	**Construction and demolitions wastes (including excavated soil from contaminated sites)**
17 02	**Wood, glass and plastic**
17 02 01	wood
17 05	**Soil (including excavated soil from contaminated sites), stones and dredging spoil**
17 05 03*	soil and stones containing hazardous substances
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 05*	dredging spoil containing hazardous substances
17 05 06	dredging spoil other than those mentioned in 17 05 05
17 05 07*	track ballast containing hazardous substances
17 05 08	track ballast other than those mentioned in 17 05 07
19	**Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use**
19 02	**Wastes from physico/chemical treatment treatments of waste (including dechromatation, decyanidation, neutralisation)**
19 02 05*	sludges from physico/chemical treatment containing hazardous substances – wastes suitable for biological treatment only
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05 – wastes suitable for biological treatment only
19 05	**wastes from aerobic treatment of solid wastes**

Table S2.3a Permitted waste types for Physico-Chemical Treatment (Activity A5 in Table S1.1) at Soil Treatment Facility	
Maximum Quantity	**Annual throughput shall not exceed 50,000 tonnes for activities AR3, AR4, AR5, AR6, AR7, AR8, AR16**
Waste code	**Description**
19 05 03	off-specification compost
19 08	**wastes from waste water treatment plants not otherwise specified**
19 08 02	waste from desanding
19 08 13*	sludges containing hazardous substances from other treatment of industrial waste water
19 08 14	sludges from other treatment of industrial waste water other than those mentioned in 19 08 13
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 07	wood other than those mentioned in 19 12 06
19 13	**Wastes from soil and groundwater remediation**
19 13 01*	solid wastes from soil remediation containing hazardous substances
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
19 13 03*	sludges from soil remediation containing hazardous substances
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03
20	**Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions**
20 01	**Separately collected fractions (except 15 01)**
20 01 38	wood other than that mentioned in 20 01 37
20 02	**Garden and park wastes (including cemetery waste)**
20 02 01	biodegradable waste
20 02 02	soil and stones
20 03	**Other municipal wastes**
20 03 03	street cleaning residues

Table S2.3b Permitted waste types for Biological Treatment (Activity A3/A4 in Table S1.1) at Soil Treatment Facility	
Maximum Quantity	**Annual throughput shall not exceed 50,000 tonnes for activities AR3, AR4, AR5, AR6, AR7, AR8, AR16**
Waste code	**Description**
01	**Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals**
01 04	**wastes from physical and chemical processing of non-metalliferous minerals**
01 04 09	waste sand and clays
01 05	**Drilling muds and other wastes**
01 05 05*	oil-containing drilling muds and wastes
01 05 06*	drilling muds and other drilling wastes containing hazardous substances
05	**Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal**
05 01	**wastes from petroleum refining**
05 01 05*	oil spills
13	**Oil wastes and wastes of liquid fuels (except edible oils, and those in chapters 05, 12 and 19)**
13 05	**Oil/water separator contents**
13 05 01*	solids from grit chambers and oil/water separators
13 05 02*	sludges from oil/water separators
13 05 03*	interceptor sludges
13 05 08*	mixtures of wastes from grit chambers and oil/water separators
17	**Construction and demolitions wastes (including excavated soil from contaminated sites)**
17 02	**Wood, glass and plastic**
17 02 01	wood
17 05	**Soil (including excavated soil from contaminated sites), stones and dredging spoil**
17 05 03*	soil and stones containing hazardous substances
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 05*	dredging spoil containing hazardous substances
17 05 06	dredging spoil other than those mentioned in 17 05 05
17 05 07*	track ballast containing hazardous substances
17 05 08	track ballast other than those mentioned in 17 05 07
19	**Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use**
19 02	**Wastes from physico/chemical treatment treatments of waste (including dechromatation, decyanidation, neutralisation)**
19 02 05*	sludges from physico/chemical treatment containing hazardous substances – wastes suitable for biological treatment only
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05 – wastes suitable for biological treatment only
19 05	**wastes from aerobic treatment of solid wastes**

Table S2.3b Permitted waste types for Biological Treatment (Activity A3/A4 in Table S1.1) at Soil Treatment Facility	
Maximum Quantity	**Annual throughput shall not exceed 50,000 tonnes for activities AR3, AR4, AR5, AR6, AR7, AR8, AR16**
Waste code	**Description**
19 05 03	off-specification compost
19 08	**wastes from waste water treatment plants not otherwise specified**
19 08 02	waste from desanding
19 08 13*	sludges containing hazardous substances from other treatment of industrial waste water
19 08 14	sludges from other treatment of industrial waste water other than those mentioned in 19 08 13
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 07	wood other than those mentioned in 19 12 06
19 12 11*	other wastes (including mixtures of materials) from mechanical treatment of waste containing hazardous substances
19 13	**Wastes from soil and groundwater remediation**
19 13 01*	solid wastes from soil remediation containing hazardous substances
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
19 13 03*	sludges from soil remediation containing hazardous substances
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03
20	**Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions**
20 01	**Separately collected fractions (except 15 01)**
20 01 38	wood other than that mentioned in 20 01 37
20 02	**Garden and park wastes (including cemetery waste)**
20 02 01	biodegradable waste
20 03	**Other municipal wastes**
20 03 03	street cleaning residues

Table S2.4 Permitted waste types and quantities for screening and handpicking, and storage of soils impacted with bonded asbestos (AR6, AR7)	
Maximum quantity	**Annual throughput shall not exceed 50,000 tonnes for activities AR3, AR4, AR5, AR6, AR7, AR8, AR16**
Waste code	**Description**
Exclusions	**Wastes having any of the following characteristics shall not be accepted:** **Asbestos in unbound fibrous form (free chrysotile fibrous asbestos in the soil must be <0.1% w/w. Other forms or mixed forms of fibrous asbestos in the soil must be <0.01% w/w.)**
17	**CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITE**
17 05	**soil (including excavated soil from contaminated sites), stones and dredging spoil**
17 05 03* and 17 06 05*	soil and stones containing hazardous substances which are impacted with identifiable pieces of bonded asbestos (any particle of a size that can be identified as potentially being asbestos by a competent person, if examined by the naked eye)
17 05 04 and 17 06 05*	soil and stones other than those mentioned in 17 05 03 which are impacted with identifiable pieces of bonded asbestos (any particle of a size that can be identified as potentially being asbestos by a competent person, if examined by the naked eye)

Table S2.5 Raw materials and fuels	
Raw materials and fuel description	**Specification**
NPK fertilizers	50 tonnes storage maximum at any one time

Schedule 3 – Emissions and monitoring

Table S3.1 Leachate level limits and monitoring requirements			
Monitoring point reference/Description	**Limit**	**Monitoring frequency**	**Monitoring method**
Phase 1: Two leachate monitoring points in addition to the collection sump for each hydraulically separate cell unless otherwise agreed in writing with the Agency.	3 m above cell base	Monthly	In accordance with Environment Agency document LFTGN02 (February 2003) 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' or such other subsequent guidance as may be agreed in writing with the Environment Agency.
Phase 2: Two leachate monitoring points in addition to the collection sump for each hydraulically separate cell unless otherwise agreed in writing with the Agency.	6 m above cell base		

Table S3.2 Point source emissions to air – emission limits and monitoring requirements						
Emission point Ref. & Location	**Parameter**	**Source**	**Limit (including unit)**	**Reference Period**	**Monitoring Frequency**	**Monitoring Standard or Method**
Engines 1-5 Landfill gas engine on Plan ESID4	Oxides of Nitrogen	Gas utilisation plant	650 mg/m^3	Hourly mean	Annually	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency.
	CO		1500 mg/m^3			
	Total VOCs		1750 mg/m^3			
A1: Flare on plan 116-1-3026/A dated 27/02/2006	Oxides of Nitrogen	Landfill Gas Flares	150 mg/m^3	Hourly mean	Annually	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency. Monitoring is unnecessary where the flare is active for <10% of the year.
	CO		50 mg/m^3			
	Total VOCs		10 mg/m^3			

Table S3.2 Point source emissions to air – emission limits and monitoring requirements						
Emission point Ref. & Location	**Parameter**	**Source**	**Limit (including unit)**	**Reference Period**	**Monitoring Frequency**	**Monitoring Standard or Method**
Biofilter Monitoring Point as shown on plan 3695-CAU-XX-XX-DR-V-1801	Ammonia	Biofilter at Soil Treatment Facility	20 mg/m^3	Hourly mean	Every six months	As agreed in writing with the Environment Agency.
	TVOCs		40 mg/m^3			
	Hydrogen Sulphide		No Limit			
Building air extraction emissions point (to be confirmed by pre-operational condition PO4)	Asbestos fibres	Air extraction emission point	0.1 fibre/ml	Hourly average	Monthly (Note 1, Note 2)	ISO 10397: 1993
	Particulate matter		5 mg/m^3	Average value of 3 consecutive measurements of at least 30 minutes each	Every 6 months (Note 2)	BS EN 13284-1
Note 1: May be reduced to a quarterly frequency after 12 monthly monitoring events with the written agreement of the Environment Agency. Note 2: To the extent possible, the measurements shall be carried out at the highest expected emission state under normal operating conditions.						

Table S3.3 Point source emissions to water (other than sewer) – emission limits and monitoring requirements						
Emission point Ref. & Location	**Parameter**	**Source**	**Limit (incl unit)**	**Reference Period**	**Monitoring Frequency**	**Monitoring Standard or Method**
W1 On Plan ESID14 dated	Suspended Solids	Site drainage from the site surface water drainage system	75 mg/l	Spot Sample	Monthly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other subsequent
	Oil or grease		No visible discharge	Spot Sample	Monthly	
	pH		>6 and <9	Spot Sample	Monthly	

Table S3.3 Point source emissions to water (other than sewer) – emission limits and monitoring requirements						
Emission point Ref. & Location	**Parameter**	**Source**	**Limit (incl unit)**	**Reference Period**	**Monitoring Frequency**	**Monitoring Standard or Method**
August 2007	Volume		750 m^3/day	24 hours	Monthly	guidance as may be agreed in writing with the Environment Agency
	Flow rate		20 l/s	Instantaneous	Monthly	
	Conductivity		No limit set	Spot Sample	Monthly	
	Ammoniacal Nitrogen		No limit set	Spot Sample	Monthly	
	Chloride		No limit set	Spot Sample	Monthly	
	DO		No limit set	Spot Sample	Monthly	
	Sulphate		No limit set	Spot Sample	Quarterly	
	Alkalinity (as $CaCO_3$)		No limit set	Spot Sample	Quarterly	
	COD		No limit set	Spot Sample	Quarterly	
	TON		No limit set	Spot Sample	Quarterly	
	Na		No limit set	Spot Sample	Quarterly	
	K		No limit set	Spot Sample	Quarterly	
	Ca		No limit set	Spot Sample	Quarterly	
	Mg		No limit set	Spot Sample	Quarterly	
	Cr		No limit set	Spot Sample	Quarterly	

Table S3.3 Point source emissions to water (other than sewer) – emission limits and monitoring requirements						
Emission point Ref. & Location	**Parameter**	**Source**	**Limit (incl unit)**	**Reference Period**	**Monitoring Frequency**	**Monitoring Standard or Method**
	Cd		No limit set	Spot Sample	Quarterly	
	Mn		No limit set	Spot Sample	Quarterly	
	Fe		No limit set	Spot Sample	Quarterly	
	Cu		No limit set	Spot Sample	Quarterly	
	Ni		No limit set	Spot Sample	Quarterly	
	Zn		No limit set	Spot Sample	Quarterly	
	Pb		No limit set	Spot Sample	Quarterly	
	Hg		No limit set	Spot Sample	Quarterly	
	List 1 substances identified in leachate, unless otherwise agreed in writing with the Environment Agency		No limit set	Spot Sample	Annually	

Table S3.4 Point source emissions to sewer, effluent treatment plant or by tankering or other transfer off-site – emission limits and monitoring requirements						
Emission point Ref. & Location	**Parameter**	**Source**	**Limit (including unit)**	**Reference Period**	**Monitoring Frequency**	**Monitoring Standard or Method**
Treated Process Water Monitoring Point as shown on Plan 3695-CAU-XX-XX-DR-V-1801	No parameters	Soil Treatment Facility	No limits	-	-	As agreed in writing with the Environment Agency

Table S3.5 Groundwater – emission limits and monitoring requirements					
Monitoring point reference	**Parameter**	**Limit (including unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method**
GW5.01 as detailed on drawing number 124E232 dated February 2013	Ammoniacal Nitrogen	1.41 mg/l[1]	Spot Sample	Monthly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency
	Chloride	225 mg/l[1]		Monthly	
	Mecoprop	0.04 µg/l[1]		Quarterly	
	Xylene	3.0 µg/l[1]		Quarterly	
	Trichlorobenzene	0.01 µg/l[1]		Quarterly	
GW08 as detailed on drawing number 124E232 dated February 2013	Ammoniacal Nitrogen	1.80 mg/l		Monthly	
	Chloride	410 mg/l		Monthly	
	Mecoprop	0.04 µg/l		Quarterly	
	Xylene	3.0 µg/l		Quarterly	
	Trichlorobenzene	0.01 µg/l		Quarterly	
1. Unless otherwise agreed in writing by the Environment Agency					

Table S3.6 Landfill gas in external monitoring boreholes – limits and monitoring requirements				
Monitoring point Ref. /description	**Parameter**	**Limit (including units)**	**Monitoring frequency**	**Monitoring standard or method**
BH1, BH2, BH5-BH18, BH22-BH35 as detailed on drawing no. 124E232 dated February 2013	Methane	1% v/v	Monthly	As per LFTGN03 (Sept 2004) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Record whether the ground is: waterlogged frozen snow covered
	Carbon Dioxide	1.5% v/v		
	Oxygen	No limit		
	Atmospheric pressure	No limit		
	Differential Pressure	No limit		
BH3, BH3.01, BH3.02, BH4.00, BH4.01 as detailed on drawing no. 124E232 dated February 2013	Methane	1% v/v		
	Carbon Dioxide	2% v/v		
	Oxygen	No limit		
	Atmospheric pressure	No limit		
	Differential Pressure	No limit		
BH4.02 as detailed on drawing no. 124E232 dated February 2013	Methane	1% v/v		
	Carbon Dioxide	11.5% v/v		
	Oxygen	No limit		
	Atmospheric pressure	No limit		
	Differential Pressure	No limit		
BH36, BH37, BH38.1, BH39.1, BH40.1, BH41-BH44 as detailed on drawing no. 124E232 dated February 2013	Methane	1% v/v		
	Oxygen	No limit		
	Atmospheric pressure	No limit		
	Differential Pressure	No limit		
BH36 and BH37	Carbon Dioxide	1.5% v/v		
BH38.1	Carbon Dioxide	2.6% v/v		
BH39.1	Carbon Dioxide	5.5% v/v		

Table S3.6 Landfill gas in external monitoring boreholes – limits and monitoring requirements				
Monitoring point Ref. /description	**Parameter**	**Limit (including units)**	**Monitoring frequency**	**Monitoring standard or method**
BH40.1	Carbon Dioxide	3.3% v/v	Monthly	As per LFTGN03 (Sept 2004) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Record whether the ground is: waterlogged frozen snow covered
BH41	Carbon Dioxide	3.0% v/v		
BH42	Carbon Dioxide	2.7% v/v		
BH43	Carbon Dioxide	2.2% v/v		
BH44	Carbon Dioxide	2.3% v/v		

Table S3.7 Particulate matter in ambient air - monitoring requirements					
Monitoring Point Ref. /Description	**Parameter**	**Limit**	**Reference Period**	**Monitoring Frequency**	**Monitoring Standard or Method**
Dust monitoring points as detailed on drawing no.ESID14, dated August 2007	Deposited dust	200 mg/m^2/day	24 hours	Monthly	
	Suspended particulate PM10	None set	In accordance with correspondence ref: 402.0197.00423 dated 06/04/2006	In accordance with correspondence ref: 402.0197.00423 dated 06/04/2006	

Table S3.8 Landfill gas emissions from capped surfaces for cells that have accepted non-hazardous biodegradable waste – monitoring requirements			
Monitoring point Ref. /description	**Parameter**	**Monitoring frequency**	**Monitoring Standard or method**
Permanently capped zone	Methane concentration	Every 12 months	As per LFTGN 07 (v2 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.

Table S3.8 Landfill gas emissions from capped surfaces for cells that have accepted non-hazardous biodegradable waste – monitoring requirements			
Monitoring point Ref. /description	**Parameter**	**Monitoring frequency**	**Monitoring Standard or method**
Temporarily capped zone	Methane concentration	Every 12 months	As per LFTGN 07 (v2 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.
Whole site	Total methane emission	As agreed with the Environment Agency	As per LFTGN 07 (v2 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.
Uncapped areas	Methane concentration	Every 12 months	As agreed with the Environment Agency based on the wording of revised LFTGN 07 or landfill sector guidance or such other subsequent guidance as may be agreed in writing with the Environment Agency.

Table S3.9 Groundwater – other monitoring requirements			
Monitoring Point Ref./Description	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**
Up gradient MEPP	Water level, electrical conductivity, chloride, ammoniacal nitrogen, pH,	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency
	total alkalinity, magnesium, potassium, total sulphates, calcium, sodium, chromium, copper, iron, lead, nickel, zinc, manganese	Annually	
	Hazardous substances	Annually for first six years of operation	
Down or cross gradient MEPP	Water level, electrical conductivity, chloride, ammoniacal nitrogen, pH,	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency After the initial 6 year monitoring period for hazardous substances, if the results of quarterly or annual monitoring suggest an increase in contamination, the operator shall also undertake a full leachate hazardous substances screen.
	total alkalinity, magnesium, potassium, total sulphates, calcium, sodium, chromium, copper, iron, lead, nickel, zinc, manganese	Annually	
	Hazardous substances detected in leachate	Annually for first six years of operation then every two years	
MEPP	Base of monitoring point (mAoD)	Annually	

Table S3.10 Landfill gas – other monitoring requirements				
Monitoring Point Ref. /Description	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
In waste gas monitoring boreholes or sealed leachate wells or sacrificial gas extraction system	Methane Carbon Dioxide Oxygen Carbon Monoxide Differential pressure Atmospheric pressure	Monthly until gas extraction commences	Calibrated handheld monitoring instrument	For cells or phases which have no active gas extraction. Gas extraction system shall be installed and extraction commenced once monitoring shows onset of methane production in waste at a rate that can be sustainably extracted. Once gas extraction has commenced in a particular cell or phase, there is no longer a requirement to carry out this monitoring.
	Hydrogen sulphide	Quarterly	Calibrated handheld monitoring instrument or Tedlar Bag sample in accordance with LFTGN04 (V3, March 2010) or other such subsequent guidance as may be agreed in writing with the Environment Agency or a method agreed with the Environment Agency.	For cells or phases which have no active gas extraction. Once gas extraction has commenced in a particular cell or phase, there is no longer a requirement to carry out this monitoring. Concentrations of hydrogen sulphide shall be assessed in accordance with the gas and odour management plans

Table S3.10 Landfill gas – other monitoring requirements				
Monitoring Point Ref. /Description	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Gas collection system at well control valve, manifolds (if applicable) and strategic points on gas system	Methane Carbon Dioxide Oxygen Carbon Monoxide Atmospheric pressure Gas flow rate or suction % Balance Gas (calculated as the difference between the sum of measured gases and 100%)	Monthly or at such other frequency as may be agreed in writing with the Environment Agency.	Calibrated handheld monitoring instrument	Where the oxygen concentration exceeds 5% or the % balance gas is greater than 20% an assessment of air ingress into the system shall be undertaken. Where the concentration of carbon monoxide exceeds 100ppm then further investigation shall be undertake Record the ambient air temperature and whether the ground is: waterlogged frozen snow covered
Gas collection system at well control valve	Hydrogen sulphide	Six monthly	Calibrated handheld monitoring instrument or Tedlar Bag sample in accordance with LFTGN04 (v3, March 2010) or other such subsequent guidance as may be agreed in writing with the Environment Agency or a method agreed with the Environment Agency.	Concentrations of hydrogen sulphide shall be assessed in accordance with the gas and odour management plans

Table S3.10 Landfill gas – other monitoring requirements				
Monitoring Point Ref. /Description	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Output to flare or LFG Utilisation Compound	Trace gas	Annually	Trace gas analysis in accordance with LFTGN04 (v3, March 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency [or a trace gas characterisation method agreed with the Environment Agency].	The concentration of trace gas components shall be assessed against the assumptions made in the Landfill gas risk assessment and dispersion modelling.
Output to flare or LFG Utilisation Compound	Methane Carbon Dioxide Oxygen Gas flow rate Suction % Balance Gas (calculated as the difference between the sum of measured gases and 100%)	Weekly		Where the oxygen concentration exceeds 5% or the % balance gas is greater than 20% an assessment of air ingress into the system shall be undertaken.

Table S3.10 Landfill gas – other monitoring requirements				
Monitoring Point Ref. /Description	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Flare 1 shown on Plan 3026/A dated 27/02/2006	Temperature	As per LFTGN05 (v2, March 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency.	
Gas engines 1-5, post turbo	NOx and CO	Quarterly	In accordance with Appendix C of LFTGN08, (v2, 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.	Where monitoring using hand-held, electrochemical equipment indicates an exceedance of the emissions standards specified in Table S3.2, these shall be used as action levels and the operator shall investigate the cause and take appropriate measures to reduce emissions.

Table S3.11 Leachate – other monitoring requirements				
Monitoring point reference or description	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Operational Cells or Phases **(Any cell or phases that do not have a final engineered cap agreed in accordance with condition 2.6)**			At leachate compliance point as listed in table S3.1.	
MEPP	pH, EC, total alkalinity, ammoniacal nitrogen, Chloride, COD, BOD, cadmium, chromium, copper, lead, nickel, iron, arsenic, magnesium, potassium, total sulphates, calcium, sodium, zinc, manganese	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency	None
MEPP	Hazardous substances	Annually		None
MEPP	Depth to base (mAoD)	Annually		None
Non Operational Cells or Phases **(Any cell or phases that have a final engineered cap agreed in accordance with condition 2.6)**				
MEPP	pH, EC, total alkalinity, ammoniacal nitrogen, Chloride, COD, BOD, cadmium, chromium, copper, lead, nickel, iron, arsenic, magnesium, potassium, total sulphates, calcium, sodium, zinc, manganese	Annually		
MEPP	Hazardous substances	Once every four years		None
MEPP	Depth to base (mAoD)	Annually		

Table S3.12 Surface water – other monitoring requirements				
Monitoring Point Ref. /Description	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
MEPP	Ammoniacal nitrogen Chloride Suspended Solids Visual Oil and Grease pH electrical conductivity	Monthly	Spot sample	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency

Table S3.13 Process monitoring requirements				
Monitoring Point	**Substance or parameter**	**Monitoring frequency**	**Monitoring method**	**Other specifications**
Biofilter Monitoring Point as shown on Plan 3695-CAU-XX-XX-DR-V-1801	Moisture content, flow rate, nutrient levels, contaminant elimination	As required	As required	Biofilter should be checked and maintained to ensure appropriate temperature and moisture content on a daily basis. Monitoring equipment shall be available on-site and used as required.

Table S3.14 Ambient air monitoring requirements					
Location or description of point of measurement	**Parameter**	**Limit**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Ambient Air sampling when asbestos contaminated soils are being received, handled and moved within the site (points as shown on plans 5193-CAU-XX-XX-DR-V-1810_S2-P01 or 5193-CAU-XX-XX-DR-V-1806_S2-P02 depending on the activity location).	Asbestos fibres	0.01 fibres/ml. Where total fibre concentration exceeds 0.01 fibres/ml in any sample, that sample must be submitted for electron microscopy to confirm the concentration of asbestos fibres present.	During receipt, handling and movement of asbestos contaminated soil within the site. 1 hour at 8 l/min or other agreed period in writing.	In line with M17 monitoring guidance. While asbestos contaminated soils are being received, handled and moved within the site. • Pumped sampling • 1 m above ground level • Flow rate = 8 litres/minute • Minimum sample volume = 480 litres • Filter pore size = 0.8-1.2 µm • Asbestos fibre limit of detection = 0.001 fibres/ml.	-

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data		
Parameter	**Reporting period**	**Period ends**
Leachate and/ or groundwater level As specified by schedule 3, table S3.1	Every 3 months	31 March, 30 June, 30 September, 31 December
Point source emission to air As specified by schedule 3, table S3.2	Every 12 months	31 December
Point source emission to water (other than sewer) As specified by schedule 3, table S3.3	Every 3 months	31 March, 30 June, 30 September, 31 December
Point source emission to sewer As specified by schedule 3, table S3.4	Every 3 months	31 March, 30 June, 30 September, 31 December
Emission to groundwater As specified by schedule 3, table S3.5	Every 3 months	31 March, 30 June, 30 September, 31 December
Landfill gas in external monitoring boreholes As specified by schedule 3, table S3.6	Every 3 months	31 March, 30 June, 30 September, 31 December
Particulate matter in ambient air. As required by schedule 3, table S3.7	Every 6 months	30 June, 31 December
Emission of landfill gas from capped surfaces As specified by schedule 3, table S3.8	Every 12 months	31 December
Other groundwater monitoring As specified by schedule 3, table S3.9	Every 3 months	31 March, 30 June, 30 September, 31 December
Other Landfill gas monitoring As specified by schedule 3, table S3.10	Every 3 months	31 March, 30 June, 30 September, 31 December
Trace gas monitoring	Every 12 months	31 December
Other leachate monitoring As specified by schedule 3, table S3.11	Every 12 months	31 December
Other surface water monitoring As specified by schedule 3, table S3.12	Every 12 months	31 December

Table S4.1 Reporting of monitoring data		
Parameter	**Reporting period**	**Period ends**
Process monitoring requirements As specified by Schedule 3, table S3.13	As agreed with the Environment Agency	31 December
Meteorological data Landfill Directive, annex III, section 2	Every 12 months	31 December
Ambient air monitoring Parameters as required by condition 3.5.	Every 12 months	31 December

* - where the reporting period is 12 months, you may submit this information as part of the 'annual report' required by condition 4.2.2.

Table S4.2 Annual production/treatment	
Leachate: Disposed of off site; Disposed of to any onsite effluent treatment plant; Recirculated into the waste mass. Accepted from offsite for treatment at any onsite effluent treatment plant.	Cubic metres/year
Landfill gas: combustion in flares; combustion in gas engines; Other methods of gas utilisation. Average methane content entering the landfill gas utilisation or treatment compound (based on the annual average of Table S3.9 monitoring) Methane generation rate (50%ile from a representative model)	Normalised cubic metres/year % methane v/v m3 /hr

Table S4.3 Performance Parameters			
Parameter	**Frequency of assessment**	**Annual total**	**Unit**
Energy used (including for leachate treatment)	Annually		MWh of electricity or natural gas

Table S4.4 Reporting Forms		
Media/parameter	**Reporting Format**	**Date of Form**
Leachate	Form leachate 1 or other reporting format to be agreed in writing with the Environment Agency	02/02/17
Air	Form Air 1 or other reporting format to be agreed in writing with the Environment Agency	Version 1, 08/03/2021
Controlled water	Form Water 1 or other reporting format to be agreed in writing with the Environment Agency	02/02/17
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with the Environment Agency	02/02/17
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with the Environment Agency	02/02/17
Particulate matter	Form Particulate 1 or other reporting format to be agreed in writing with the Environment Agency	02/02/17
Waste Return	Waste Return Form RATS2E	02/02/17
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Environment Agency	02/02/17
Ambient air monitoring	Ambient Air Monitoring Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021

Schedule 5 – Notification

This page outlines the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any incident or accident which significantly affects or may significantly affect the environment	
To be notified within 24 hours of detection	
Date and Time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	**Notification period**

(c) Notification requirements in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B to be supplied as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“annually” means once every year.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“Background concentration” means such concentration of that substance as is present in:

- For emissions to surface water, the surface water quality up-gradient of the site; or
- For emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge; or
- For emissions of landfill gas, the ground or air outside the site and not attributable to the site.

(3) “Cell layout drawing” means: A drawing or drawings of the proposed new cell that illustrate(s) in sufficient detail:

(i) the location of the new cell on the site;

(ii) the proposed level (Above Ordnance Datum) of the base of the excavation;

(iii) the proposed finished levels of all containment and leachate drainage layers;

(iv) the positions of leachate management infrastructure; and

(v) the positions of landfill gas infrastructure (if appropriate).

(4) A detailed written explanation of any minor design changes from the most recently approved cell that result from the new cell layout. This would include, for example:

(i) changes to slope length and gradient within the cell;

(ii) new leachate or landfill gas infrastructure construction design;

(iii) slope stability issues such as new basal excavation level; and/or

(iv) depth of waste.

“Construction Proposals” means written information, at a level of detail appropriate to the complexity and pollution risk, on the design, specifications of materials selected, stability assessment (where relevant) and the construction quality assurance (CQA) programme in relation to the New Cell or Landfill Infrastructure.

“CQA Validation Report” means the final “as built” construction and engineering details of the New Cell or of the Landfill Infrastructure. It must provide a comprehensive record of the construction and must include, where relevant:

- The results of all testing required by the CQA programme - this must include the records of any failed tests with a written explanation, details of the remedial action taken, referenced to the appropriate secondary testing;
- Plans showing the location of all tests;
- “As-built” plans and sections of the works;
- Copies of the site engineer’s daily records;
- Records of any problems or non-compliances and the solution applied;

- Any other site specific information considered relevant to proving the integrity of the New Cell or Landfill Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the Construction Proposals.

"emissions to land" includes emissions to groundwater.

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations 2016, SI 2016 No.1154 and words and expressions used in this permit which are also used in those Regulations have the same meanings as in those Regulations.

"emissions of substances not controlled by emission limits" means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

"exceeded" means that a value is above a permitted limit, or where a range of values or a minimum value is set as a permitted limit it means a value outside that range or below the minimum value, whichever is applicable.

'Hazardous property' has the meaning in Annex III of the Waste Framework Directive.

"Hazardous substances" as defined by the Environmental Permitting (England and Wales) Regulations 2010, SI 2010 No.675, schedule 22 and listed in our Hydrogeological risk assessment guidance, annex J to our H1 risk assessment guidance.

'Hazardous waste' has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 (as amended).

"Landfill Infrastructure" means any specified element of the:

- permanent capping;
- temporary capping (i.e. engineered temporary caps not cover materials);
- leachate abstraction systems;
- leachate transfer, treatment and storage systems;
- surface water drainage systems;
- leachate monitoring wells;
- groundwater monitoring boreholes;
- landfill gas monitoring boreholes;
- landfill gas management systems;
- lining within the installation.

within the site.

"Liquids" means any liquid other than leachate within the engineered landfill containment system.

"List of Wastes" means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended from time to time.

"LFTGN 05" means Environment Agency Guidance for monitoring enclosed landfill gas flares.

"LFTGN 07" means Environment Agency Guidance on monitoring landfill gas surface emissions.

"LFTGN 08" means Environment Agency Guidance for monitoring landfill gas engines.

"Groundwater" means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

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

“Medicinal product” means any medicine licensed by the Medicines and Healthcare products Regulatory Agency (MHRA) or their predecessors under the Medicines Act 1968, section 130.

“MEPP” Monitoring and extraction point plan, required by condition 4.2.2(h) to specify extraction points and routine monitoring locations.

“M2” means Environment Agency Guidance Monitoring of stack emissions to air.

“New Cell” means any new cell, part of a cell or other similar new area of the site where waste deposit is to commence after issue of this permit and can comprise:

- groundwater under-drainage system;
- permanent geophysical leak location system;
- leak detection layer;
- sub-grade;
- barriers;
- liners;
- leachate collection system;
- leachate abstraction system;
- separation bund/layer;
- cell or area surface water drainage system;
- side wall subgrade and containment systems;

for the New Cell.

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“No impact” means that the change made to the construction process will not affect the agreed design criteria, specification or performance in a way that has a negative effect.

“Pests” means Birds, Vermin and Insects.

“Previous year” means the 12 month period preceding the month the annual report is submitted in.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“Relevant waste acceptance procedures” means the procedure for the acceptance of waste at landfills and the associated sampling and test methods specified in the Council Decision Annex (2003/33/EC, European Council of 19 December 2002).

“Relevant waste acceptance criteria” means the waste acceptance criteria and the associated sampling and test methods specified in the Council Decision Annex (2003/33/EC, European Council of 19 December 2002).

“Review of the Hydrogeological Risk Assessment” means a written review of the hydrogeological risk assessment included in the Application, together with any other parts of the Application that addressed the requirements of the EP Regulations. The review shall assess whether the activities of disposal or tipping for the purpose of disposal of waste authorised by the permit continue to meet the requirements of the EP Regulations.

‘Sustainably extracted’ means where suction can be applied to the extraction wells such that a flow rate of landfill gas, with a methane content capable of either being combusted, or treated by bio-oxidation, can be extracted without increasing the risk of air ingress to the waste or inducing aerobic degradation within the waste.

‘Waste code’ - See ‘List of Wastes’.

“WFD” means Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste [and repealing certain Directives] – the Waste Framework Directive.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means the standards included in Environment Agency Guidance for Monitoring Enclosed Landfill Gas Flares LFTGN 05 or Guidance for Monitoring Landfill Gas Engine Emissions LFTGN 08.

Where the following terms appear in the waste code list in Tables S2.1 or S2.2 they have the meaning given below:

‘hazardous substance’ means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008;

‘heavy metal’ means any compound of antimony, arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as hazardous substances;

‘polychlorinated biphenyls and polychlorinated terphenyls’ (‘PCBs’) means PCBs as defined in Article 2(a) of Council Directive 96/59/EC’.
Article 2(a) says that ‘PCBs’ means:

- polychlorinated biphenyls
- polychlorinated terphenyls
- monomethyl-tetrachlorodiphenyl methane, Monomethyl-dichloro-diphenyl methane, Monomethyldibromo-diphenyl methane
- any mixture containing any of the above mentioned substances in a total of more than 0,005 % by weight;

‘transition metals’ means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances;

‘stabilisation’ means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste;

‘solidification’ means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste;

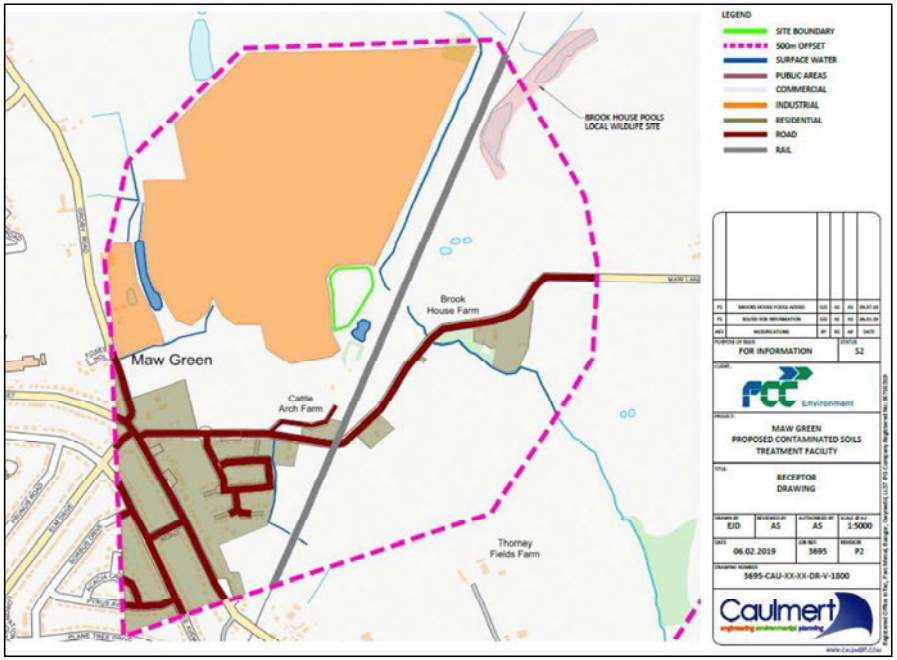
‘partly stabilised wastes’ means wastes containing, after the stabilisation process, hazardous constituents which have not been changed completely into non-hazardous constituents and could be released into the environment in the short, middle or long term.

Schedule 7

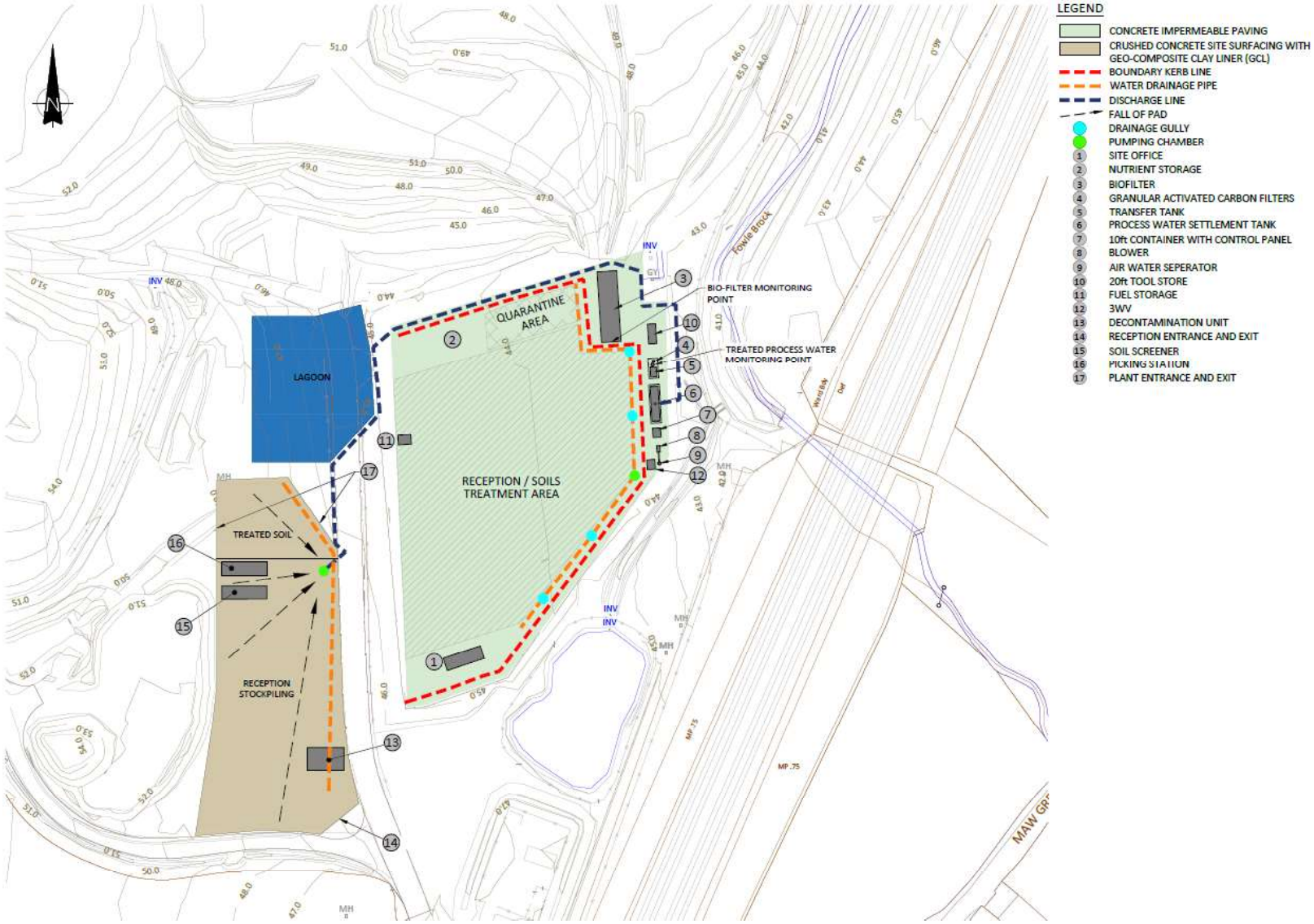
Site boundary plan



"© Crown Copyright. All rights reserved. Environment Agency, 100024198, 2023."



Site layout plan



END OF PERMIT

Ambient Air Monitoring Form

Permit number: *[EPR/AB1234CB]*

Operator: *[A Company Name Limited]*

Facility name: *[Unit A, Anytown]*

Ambient Air Monitoring Form: version 1, 08/03/2021

Reporting of monitoring ambient air for the period from *[DD/MM/YY]* to *[DD/MM/YY]*

Monitoring point	Substance / parameter	Compliance limit	Reference period	Test method [1]	Result [2]	Sample dates and times [3]	Uncertainty [4]
[e.g. P1]	*[e.g. PM_{10} suspended particulate matter]*	*[e.g. 50 µg/m^3]*	*[24 hour average]*	*[e.g. BS EN 12341:2014]*	*[State result]*	*[State relevant dates and time periods]*	*[State uncertainty if not 95% confidence interval]*

Signed: *[Name]* **Date:** *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your monitoring results.
Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

[1] Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.
[2] Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.
[3] For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.

Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

Emissions to Air Reporting Form

Permit number: *[EPR/AB1234CB]* **Operator:** *[A Company Name Limited]*

Facility name: *[Unit A, Anytown]* **Emissions to Air Reporting Form: version 1, 08/03/2021**

Reporting of emissions to air for the period from *[DD/MM/YY]* to *[DD/MM/YY]*

Emission point	Substance / parameter	Emission Limit Value	Reference period	Test method [1]	Result [2]	Sample dates and times [3]	Uncertainty [4]
[e.g. A1]	*[e.g. Oxides of nitrogen (NO and NO_2 expressed as NO_2)]*	*[e.g. 200 mg/m^3]*	*[e.g. daily average]*	*[e.g. BS EN 14181]*	*[State result]*	*[State relevant dates and time periods]*	*[State uncertainty if not 95% confidence interval]*

Signed: *[Name]* **Date:** *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your monitoring results.
Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

[1] Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.
[2] Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.
[3] For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.
[4] Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

SMARTWASTE

bre

Date:Tue Dec 23 08:51:23 GMT 2025

KPIs for Wrexham AFC KOP Stand

Traffic lights show the performance against target. Green = Within target. Red = Over target.

Start date 1/11/2025 **- end date** 30/11/2025

KPI name	Target Value	KPI Performance	KPI Unit	Comments
Tonnes excavation waste	-	247.00	tonnes	

SMARTWASTE

bre

Date:Tue Dec 23 08:50:47 GMT 2025

KPIs for Wrexham AFC KOP Stand

Traffic lights show the performance against target. Green = Within target. Red = Over target.

Start date 1/10/2025 **- end date** 31/10/2025

KPI name	Target Value	KPI Performance	KPI Unit	Comments
Tonnes excavation waste	-	8,429.48	tonnes	

BRE SMARTWASTE

Project : **Wrexham AFC KOP Stand** Start Date : 1/12/2025 End Date : 31/1/2026

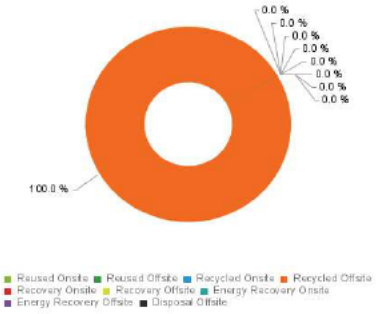
Actual waste sent offsite

	Total (t)	t /Ã£100k	t /100m2	Diverted from landfill (t)	Diverted from landfill (%)
Construction	0.0	0.0	0.0	0.0	0.00
Demolition	0.0	0.0	0.0	0.0	0.00
Excavation	5,632.0	10.1	59.3	5,632.0	100.00
Modular	0.0	0.0	0.0	0.0	0.00
Post-Completion	0.0	0.0	0.0	0.0	0.00
Operational	0.0	0.0	0.0	0.0	0.00
Total (offsite):	5,632.0	10.1	59.3	5,632.0	100.00
Total (offsite & onsite):	5,632.0	10.1	59.3	5,632.0	100.00

Tonnage of waste to date by product group



Waste management routes (for actual waste)



Actual waste (onsite)



Other waste KPIs

Waste cost KPIs		Number of waste containers to date	303
Total	Ã£0.00		
/Ã£100k	Ã£0.00		
/100m2	Ã£0.00		

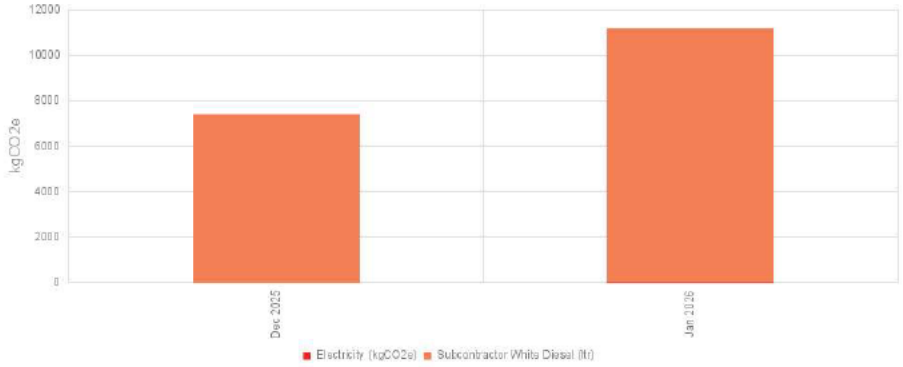
BRE SMARTWASTE

Project : Wrexham AFC KOP Stand

Energy use

Electricity	176.0	kW h	43.2	kg CO_2e	kg CO_2e /Â£100k	33.1
Natural Gas	0.0	kW h	0.0	kg CO_2e	kg CO_2e /100m^2	195.4
Fuel Litres	5,820.0	Litres	18,518.3	kg CO_2e		
Fuel KGs	0.0	KGs	0.0	kg CO_2e		
Total CO_2e production			18,561.4	kg CO_2e		

CO_2e by Month and Source



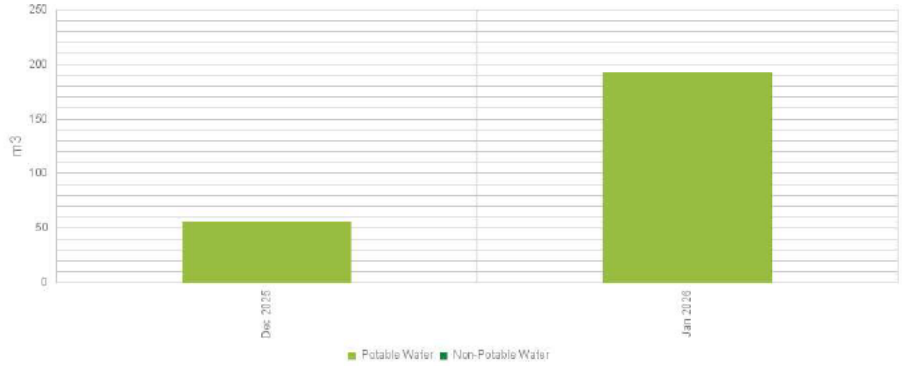
BRE SMARTWASTE

Project : **Wrexham AFC KOP Stand**

Mains water use

Total usage	247.456 m³
/Ã£100k	0.4
/100m²	2.6

Monthly water use



Monthly water discharge

No Data Available

BRE SMARTWASTE

Project : **Wrexham AFC KOP Stand**

Timber Use

Total usage	0.0 m³
% from certified & reused sources – Temporary	0.0
% from certified & reused sources – Permanent	0.0
% from certified & reused sources	0.0

Total timber usage to date by month

No Data Available

BRE SMARTWASTE

Project : **Wrexham AFC KOP Stand**

Material use

Total usage	0 m³
% Certified	0.0

Volume of materials to date by certification types

No Data Available

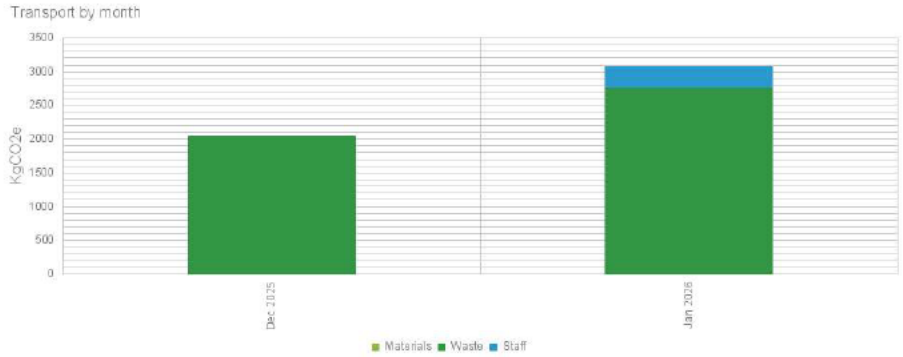
BRE SMARTWASTE

Project : Wrexham AFC KOP Stand

Transport use

	kgCO_2e	kgCO_2e /A£100k	Distance Travelled (Kms)	Distance Travelled (Miles)	Fuel Consumption (litres)
Materials	0.0	0.0	0.0	0.0	0.0
Staff	317.7	0.6	1,416.2	880.0	0.0
Waste	4,810.1	8.6	4,435.3	2,756.0	1,430.0
Total	5,127.8	9.2	5,851.5	3,636.0	1,430.0

Transport by month



BRE SMARTWASTE

Project : **Wrexham AFC KOP Stand**

Considerate Constructors Scheme

Project CCS score	-
Project CCS target	40.00

Appendix D Soil Import

D.1 Chemical data

D.2 Waste Transfer Notes

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P. P. O'CONNOR
Committed To Excellence

MATERIALS APPROVAL REGISTER

Contract No: C0677 Contract Name: **Wrexham AFC**

Ref	Material	Supplier	Date Submitted For Approval	Date Approved	Approved By	Comments
MA - 001	Class 6F2 Matieral	PPOC	28/10/2025			

P M Dromgooles & Sons Agricultural Ltd
Broughton Cottage Farm, Mold Road, Broughton, Chester, CH4 0EW
Tel: 01244 661441
Email: accounts@dromgooles.co.uk
Website: https://www.dromgooles.co.uk/

Job No: 25177

Ref: 00000E1021 0000219642

DUTY OF CARE – WASTE TRANSFER / CONVEYANCE NOTE

A Waste

Description of Waste Material, Waste Contained and EWC Code:

Weight: 1
Quantity: 0
Description: SOIL AND STONES
Waste Code: 17 05 04 - Soil and stones other than those mentioned in 17 05 03

B Producer

☑ **I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England & Wales) Regulations 2011**

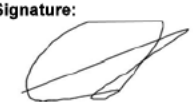
Company Name:
M.P.B Structures Ltd

Collection Address:
C/O McClaren Group/MPB Offices
Wrexham F.C Kop Stand
Crispin Lane
Wrexham
LL11 2BY

SIC Code:
38.11

Signed by:
Bal

Signature:



Time & Date:
1516 **on** 05/02/2026

C Transferee

Registered Waste Carrier

Company Name:
P M Dromgooles & Sons Agricultural Ltd

Waste Carrier No:
CBDU13593

Carrier Address:
Broughton Cottage Farm
Mold Road
Broughton
Chester
CH4 0EW

Signature:



Driver's Name: Seren Jones

Vehicle Reg: R121 PMD

Time & Date:
1516 **on** 05/02/2026

D Transfer

Disposal / Recycle / Transfer Facility:
Enovert Hafod LFG Site
101 Bangor Road

Johnstown
LL14 2SS

Site Permit / Exception No:
PP3139GB

Signed by:
Christine

Signature:



Time & Date:
1551 **on** 05/02/2026

I hereby certify that the above particulars are true and relate to the materials conveyed in the vehicle described

P M Dromgooles & Sons Agricultural Ltd
Broughton Cottage Farm, Mold Road, Broughton, Chester, CH4 0EW
Tel: 01244 661441
Email: accounts@dromgooles.co.uk
Website: https://www.dromgooles.co.uk/

Job No: 25177

Ref: 00000E1021 0000219642

DUTY OF CARE – WASTE TRANSFER / CONVEYANCE NOTE

A Waste

Description of Waste Material, Waste Contained and EWC Code:

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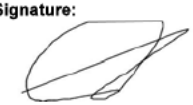
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M.P.B Structures Ltd

Collection Address:
C/O McClaren Group/MPB Offices
Wrexham F.C Kop Stand
Crispin Lane
Wrexham
LL11 2BY

SIC Code:
38.11

Signed by:
Bal

Signature:



Time & Date:
1516 **on** 05/02/2026

C Transferee

Registered Waste Carrier

Company Name:
P M Dromgooles & Sons Agricultural Ltd

Waste Carrier No:
CBDU13593

Carrier Address:
Broughton Cottage Farm
Mold Road
Broughton
Chester
CH4 0EW

Signature:



Driver's Name: Seren Jones

Vehicle Reg: R121 PMD

Time & Date:
1516 **on** 05/02/2026

D Transfer

Disposal / Recycle / Transfer Facility:
Enovert Hafod LFG Site
101 Bangor Road

Johnstown
LL14 2SS

Site Permit / Exception No:
PP3139GB

Signed by:
Christine

Signature:



Time & Date:
1551 **on** 05/02/2026

I hereby certify that the above particulars are true and relate to the materials conveyed in the vehicle described

envirolab
Hattersley Science & Technology Park
Stockport Road, Hattersley, SK14 3QU

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 25/03539
Issue Number: 1 **Date:** 15 April, 2025

Client:
PP O'Connor Ltd
61 Mosley Road
Trafford Park
Manchester
M17 1GJ

Project Manager: Tony Barry
Project Name: Eccles
Project Ref: N/A
Order No: M-C0555/000212
Date Samples Received: 04/04/25
Date Instructions Received: 07/04/25
Date Analysis Completed: 15/04/25

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 25/03539

Client Project Name: Eccles

Client Project Ref: N/A

Lab Sample ID	25/03539/1	25/03539/2	25/03539/3	25/03539/4				Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	Sample 12	Sample 13	Sampel 14	Sample 15						
Depth to Top										
Depth To Bottom										
Date Sampled	04-Apr-25	04-Apr-25	04-Apr-25	04-Apr-25						
Sample Type	SOLID	SOIL	SOIL	SOIL						
Sample Matrix Code	7	GAB	GAB	GAB						
% Stones >10mm$_A$	<0.1	37.8	16.4	36.5				% w/w	0.1	A-T-044
pH$_D$ [M#]	10.72[U]	10.45	10.41	10.35				pH	0.01	A-T-031s
Sulphate (acid soluble)$_D$ [M#]	18000[U]	16000	18000	13000				mg/kg	200	A-T-028s
Phenols - Total by HPLC$_A$	<0.2	<0.2	<0.2	<0.2				mg/kg	0.2	A-T-050s
Arsenic$_D$ [M#]	6[U]	4	7	4				mg/kg	1	A-T-024s
Beryllium$_D$	0.6	<0.5	0.5	<0.5				mg/kg	0.5	A-T-024s
Cadmium$_D$ [M#]	<0.5[U]	<0.5	0.6	<0.5				mg/kg	0.5	A-T-024s
Copper$_D$ [M#]	23[U]	20	31	20				mg/kg	1	A-T-024s
Chromium$_D$ [M#]	15[U]	10	14	10				mg/kg	1	A-T-024s
Lead$_D$ [M#]	50[U]	45	50	62				mg/kg	1	A-T-024s
Mercury$_D$	<0.17	<0.17	<0.17	<0.17				mg/kg	0.17	A-T-024s
Nickel$_D$ [M#]	11[U]	7	11	8				mg/kg	1	A-T-024s
Phosphorus$_D$	306	165	241	191				mg/kg	5	A-T-072s
Selenium$_D$ [M#]	<1[U]	<1	<1	<1				mg/kg	1	A-T-024s
Vanadium$_D$ [M#]	20[U]	12	18	13				mg/kg	1	A-T-024s
Zinc$_D$ [M#]	118[U]	313	146	105				mg/kg	1	A-T-024s

Envirolab Job Number: 25/03539

Client Project Name: Eccles

Client Project Ref: N/A

Lab Sample ID	25/03539/1	25/03539/2	25/03539/3	25/03539/4				Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	Sample 12	Sample 13	Sampel 14	Sample 15						
Depth to Top										
Depth To Bottom										
Date Sampled	04-Apr-25	04-Apr-25	04-Apr-25	04-Apr-25						
Sample Type	SOLID	SOIL	SOIL	SOIL						
Sample Matrix Code	7	6AB	6AB	6AB						
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil[#]	NAD[U]	NAD	NAD	NAD						A-T-045
Asbestos Matrix (visual)[D]	-	-	-	-						A-T-045
Asbestos Matrix (microscope)[D]	-	-	-	-						A-T-045
Asbestos ACM - Suitable for Water Absorption Test?[D]	N/A	N/A	N/A	N/A						A-T-045

envirolab

Envirolab Job Number: 25/03539

Client Project Name: Eccles

Client Project Ref: N/A

Lab Sample ID	25/03539/1	25/03539/2	25/03539/3	25/03539/4				Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	Sample 12	Sample 13	Sampel 14	Sample 15						
Depth to Top										
Depth To Bottom										
Date Sampled	04-Apr-25	04-Apr-25	04-Apr-25	04-Apr-25						
Sample Type	SOLID	SOIL	SOIL	SOIL						
Sample Matrix Code	7	6AB	6AB	6AB						
PAH-16MS										
Acenaphthene$_A^{M\#}$	0.06^U	0.03	0.07	0.11				mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	0.05^U	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	0.11^U	0.08	0.15	0.19				mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	0.33^U	0.17	0.35	0.29				mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	0.34^U	0.19	0.33	0.27				mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	0.22^U	0.18	0.34	0.25				mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	0.32^U	0.19	0.33	0.21				mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	0.13^U	0.07	0.14	0.10				mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	0.37^U	0.20	0.38	0.31				mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	0.11^U	0.07	0.10	0.07				mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	0.79^U	0.39	0.81	0.72				mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	0.05^U	0.03	0.07	0.10				mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	0.22^U	0.13	0.23	0.17				mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	0.07^U	<0.03	0.05	0.25				mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	0.85^U	0.29	0.64	0.71				mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	0.67^U	0.33	0.67	0.61				mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	4.73^U	2.35	4.66	4.36				mg/kg	0.01	A-T-019s
TPH Banded 2										
>C6-C10$_A^{M\#}$	<5^U	<5	<5	<5				mg/kg	5	A-T-007s
>C10-C25$_A^{M\#}$	31^U	64	109	72				mg/kg	5	A-T-007s
>C25-C40$_A^{M\#}$	101^U	237	566	222				mg/kg	5	A-T-007s
Total TPH Banded 2$_A^{M\#}$	132^U	301	675	294				mg/kg	5	A-T-007s

Report Notes

General

•This report shall not be reproduced, except in full, without written approval from Envirolab.
•The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client and can affect the validity of results.
•The results reported herein relate only to the material supplied to the laboratory.
•The residue of any samples contained within this report, and any received within the same delivery, will be disposed of **four weeks** after the initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of **six months** after the initial Asbestos testing is completed.
•Analytical results reflect the quality of the sample at the time of analysis only.
•Opinions and Interpretations expressed are outside our scope of accreditation.
•A deviating sample report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
•If a sample is outside of the calibration range or affected by interferences then it may need diluting. This will result in the limit of detection (LOD) being raised.
•Subcontracted Analysis: Please see the appended report for any deviations, current LODs and accreditation status of the test.

Key

Superscript "#"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "D" on Asbestos	Analysis performed on a dried aliquot of sample provided.
Subscript "^"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
Trace	Asbestos found not suitable for Gravimetric Quantification – not enough to accurately weigh.
N/A	Not applicable

Asbestos

Identification: Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis
"Trace Asbestos Identified" will be reported if there is not enough present to verify the type.
Quantification: Generally a 2 stage process including visual identification, hand picking and weighing, and fibre counting. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres). "TRACE" will be reported as a quantification result.
PLEASE INFORM THE LABORATORY IF YOU WOULD LIKE THE STAGE 3 SEDIMENTATION PROCESS CARRIED OUT. Note this will be subcontracted.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs
Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.					

Soil Chemical Analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH by method A-T-007:
For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:
EPH CWG results have humics mathematically subtracted through instrument calculation.
Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:
Results greater than 12900µS/cm @ 25^0C / 11550µS/cm @ 20^0C fall outside the calibration range and as such are unaccredited.

Please contact your client manager if you require any further information.

Envirolab Deviating Samples Report

Hattersley Science & Technology Park, Stockport Road, Hattersley, SK14 3QU
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: PP O'Connor Ltd, 61 Mosley Road, Trafford Park, Manchester, M17 1GJ

Project No: 25/03539

Date Received: 07/04/2025 (am)

Project: Eccles

Cool Box Temperatures (°C): 13.0

Clients Project No: N/A

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

MURRAY RIX

CONSULTANCY, SITE INVESTIGATION
CONSTRUCTION MATERIALS TESTING

TEST REPORT

Client P.P. O'Connor Ltd

Address 61 Mosley Road
Trafford Park
Manchester
M17 1GJ

Contract Eccles

Job Number MRN 25009/4
Date of Issue 28 April 2025

Approved Signatories

[redacted]

Notes

1 All remaining samples and remnants from this contract will be disposed 28 days from the date of this report unless you notify us to the contrary.

2 Result certificates, in this report, not bearing a UKAS mark, are not included in our UKAS accreditation schedule.

3 Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation.

4 Certified that the samples have been examined and tested in accordance with the terms of the contract/order and unless otherwise stated conform to the standards/specifications quoted.

5 The results included within the report are representative of the samples submitted for analysis.

6 This certificate should not be reproduced, except in full, without the express permission of the laboratory.

Andrew House, Hadfield Street, Dukinfield, Cheshire SK16 4QX Tel: 0161 475 0870
Email: enquiries@murrayrix.com Website: www.murrayrix.com

Also at: London: 020 8523 1999

Murray Rix is the trading name of Murray Rix (Northern) Limited. Registered in England 2878361

MURRAY RIX
ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870

UKAS TESTING 1580

TEST CERTIFICATE

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4:2016

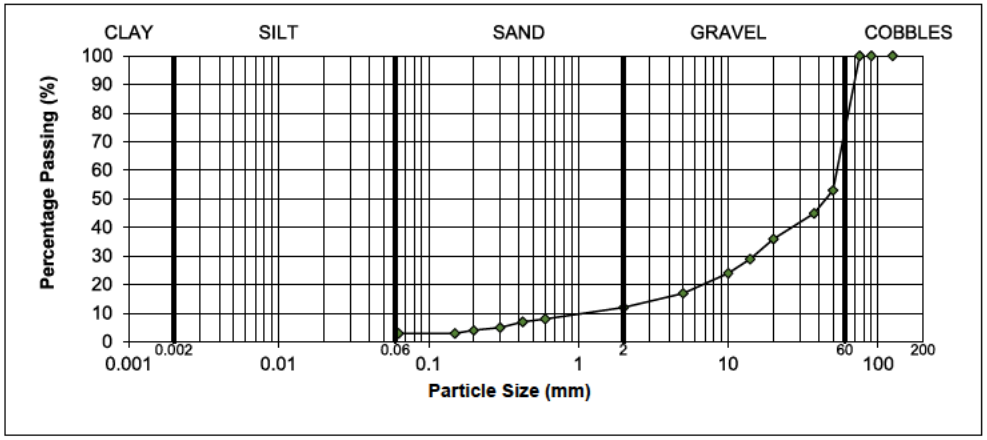
Determination of Water Content in accordance with BS EN ISO 17892-1:2014+A1:2022 (Oven Dry)

CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

SAMPLE LABEL	Sample 12	DATE SAMPLED	Not advised
LAB SAMPLE No	5057801	DATE RECEIVED	08-Apr-25
DATE TESTED	12-Apr-25	SAMPLED BY	Client

MATERIAL	Recycled 6F2
ADVISED SOURCE	As client & site above

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100	100	5	17	10-45
90	100	80-100	2	12	
75	100	65-100	0.6	8	0-25
50	53		0.425	7	
37.5	45	45-100	0.3	5	
20	36		0.2	4	
14	29		0.15	3	
10	24	15-60	0.063	3	0-12



REMARKS
Sample complies with the advised grading specification for a 6F2 material (SHW, Feb. 2017)
As received water content = 7.5%

SIGNED

NAME O.P. Davies BA (Hons) DATE 28-Apr-25
(Director / Head of Laboratory)

MURRAY RIX
ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870

UKAS TESTING 1580

TEST CERTIFICATE

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4:2016

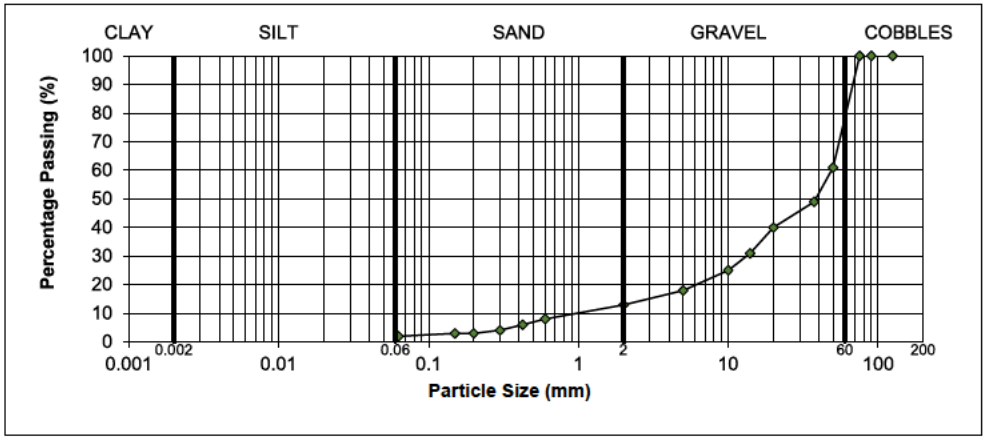
Determination of Water Content in accordance with BS EN ISO 17892-1:2014+A1:2022 (Oven Dry)

CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

SAMPLE LABEL	Sample 13	DATE SAMPLED	Not advised
LAB SAMPLE No	5057802	DATE RECEIVED	08-Apr-25
DATE TESTED	12-Apr-25	SAMPLED BY	Client

MATERIAL	Recycled 6F2
ADVISED SOURCE	As client & site above

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100	100	5	18	10-45
90	100	80-100	2	13	
75	100	65-100	0.6	8	0-25
50	61		0.425	6	
37.5	49	45-100	0.3	4	
20	40		0.2	3	
14	31		0.15	3	
10	25	15-60	0.063	2	0-12



REMARKS
Sample complies with the advised grading specification for a 6F2 material (SHW, Feb. 2017)
As received water content = 6.0%

SIGNED

NAME O.P. Davies BA (Hons) DATE 28-Apr-25
(Director / Head of Laboratory)

MURRAY RIX
ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870

UKAS TESTING 1580

TEST CERTIFICATE

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4:2016

Determination of Water Content in accordance with BS EN ISO 17892-1:2014+A1:2022 (Oven Dry)

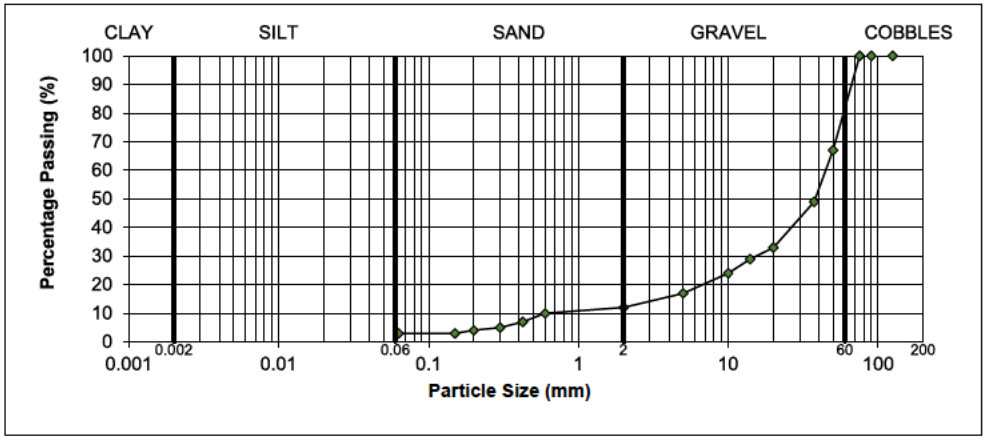
CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

SAMPLE LABEL	Sample 14	DATE SAMPLED	Not advised
LAB SAMPLE No	5057803	DATE RECEIVED	08-Apr-25
DATE TESTED	12-Apr-25	SAMPLED BY	Client

MATERIAL	Recycled 6F2
ADVISED SOURCE	As client & site above

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100	100	5	17	10-45
90	100	80-100	2	12	
75	100	65-100	0.6	10	0-25
50	67		0.425	7	
37.5	49	45-100	0.3	5	
20	33		0.2	4	
14	29		0.15	3	
10	24	15-60	0.063	3	0-12

3



REMARKS
Sample complies with the advised grading specification for a 6F2 material (SHW, Feb. 2017)
As received water content = 5.6%

SIGNED

NAME O.P. Davies BA (Hons) DATE 28-Apr-25
(Director / Head of Laboratory)

MURRAY RIX
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UKAS TESTING 1580

TEST CERTIFICATE

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4:2016

Determination of Water Content in accordance with BS EN ISO 17892-1:2014+A1:2022 (Oven Dry)

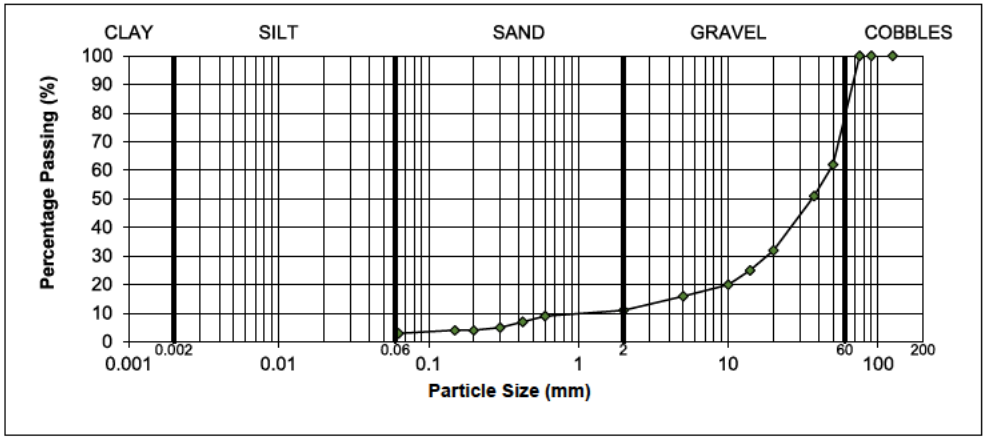
CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

SAMPLE LABEL	Sample 15	DATE SAMPLED	Not advised
LAB SAMPLE No	5057804	DATE RECEIVED	08-Apr-25
DATE TESTED	12-Apr-25	SAMPLED BY	Client

MATERIAL	Recycled 6F2
ADVISED SOURCE	As client & site above

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100	100	5	16	10-45
90	100	80-100	2	11	
75	100	65-100	0.6	9	0-25
50	62		0.425	7	
37.5	51	45-100	0.3	5	
20	32		0.2	4	
14	25		0.15	4	
10	20	15-60	0.063	3	0-12

3



REMARKS
Sample complies with the advised grading specification for a 6F2 material (SHW, Feb. 2017)
As received water content = 4.6%

SIGNED

NAME O.P. Davies BA (Hons) DATE 28-Apr-25
(Director / Head of Laboratory)

MURRAY RIX

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UKAS TESTING 1580

TEST CERTIFICATE

DRY DENSITY/WATER CONTENT RELATIONSHIP VIBRATING HAMMER
BS 1377-2:2022 Cl.11
PARTICLE DENSITY METHOD BS 1377-2:2022 Cl.9.2

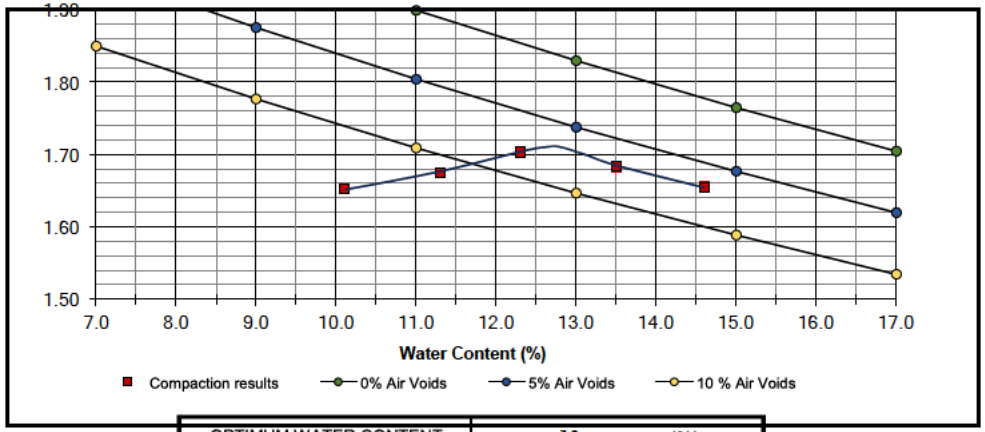
CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

SAMPLE LABEL	Sample 12	DATE SAMPLED	Not advised
SAMPLE NUMBER	5057801	DATE RECEIVED	08-Apr-25
DATE TESTED	12-Apr-25	SAMPLED BY	Client

MATERIAL	Recycled 6F2
ADVISED SOURCE	As client & site above
PRE TREATMENT	Air Dried / Separate Batches

RETAINED 37.5mm	55 %	GRADING ZONE	Zone X
RETAINED 20mm	64 %	PARTICLE DENSITY	2.40 Mg/m3 (Assumed)

POINT NUMBER	WATER CONTENT (%)	DRY DENSITY (Mg/m³)
1	10.1	1.652
2	11.3	1.675
3	12.3	1.703
4	13.5	1.683
5	14.6	1.655



OPTIMUM WATER CONTENT	13	(%)
MAXIMUM DRY DENSITY	1.71	(Mg/m³)

REMARKS

NAME O.P. Davies BA (Hons) SIGNED DATE 28-Apr-25
(Director / Head of Laboratory)

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TEST CERTIFICATE

DRY DENSITY/WATER CONTENT RELATIONSHIP VIBRATING HAMMER
BS 1377-2:2022 Cl.11
PARTICLE DENSITY METHOD BS 1377-2:2022 Cl.9.2

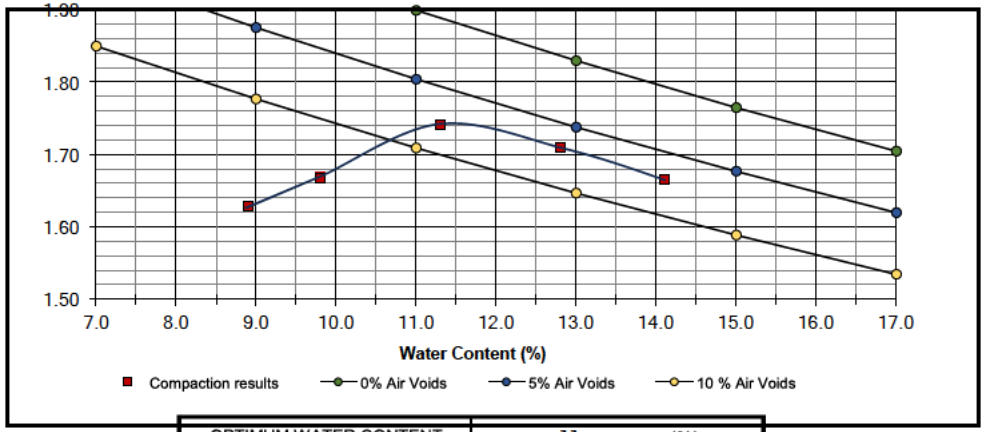
CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

SAMPLE LABEL	Sample 13	DATE SAMPLED	Not advised
SAMPLE NUMBER	5057802	DATE RECEIVED	08-Apr-25
DATE TESTED	12-Apr-25	SAMPLED BY	Client

MATERIAL	Recycled 6F2
ADVISED SOURCE	As client & site above
PRE TREATMENT	Air Dried / Separate Batches

RETAINED 37.5mm	51 %	GRADING ZONE	Zone X
RETAINED 20mm	60 %	PARTICLE DENSITY	2.40 Mg/m3 (Assumed)

POINT NUMBER	WATER CONTENT (%)	DRY DENSITY (Mg/m³)
1	8.9	1.628
2	9.8	1.668
3	11.3	1.740
4	12.8	1.710
5	14.1	1.665



OPTIMUM WATER CONTENT	11	(%)
MAXIMUM DRY DENSITY	1.74	(Mg/m³)

REMARKS

NAME O.P. Davies BA (Hons) SIGNED DATE 28-Apr-25
(Director / Head of Laboratory)

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UKAS TESTING 1580

TEST CERTIFICATE

DRY DENSITY/WATER CONTENT RELATIONSHIP VIBRATING HAMMER
BS 1377-2:2022 Cl.11
PARTICLE DENSITY METHOD BS 1377-2:2022 Cl.9.2

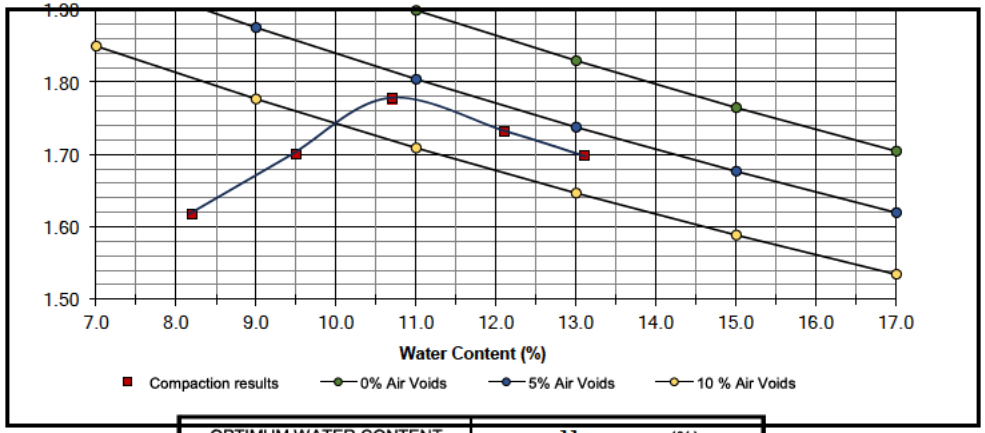
CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

SAMPLE LABEL	Sample 14	DATE SAMPLED	Not advised
SAMPLE NUMBER	5057803	DATE RECEIVED	08-Apr-25
DATE TESTED	12-Apr-25	SAMPLED BY	Client

MATERIAL	Recycled 6F2
ADVISED SOURCE	As client & site above
PRE TREATMENT	Air Dried / Separate Batches

RETAINED 37.5mm	51 %	GRADING ZONE	Zone X
RETAINED 20mm	67 %	PARTICLE DENSITY	2.40 Mg/m3 (Assumed)

POINT NUMBER	WATER CONTENT (%)	DRY DENSITY (Mg/m³)
1	8.2	1.618
2	9.5	1.700
3	10.7	1.777
4	12.1	1.732
5	13.1	1.699



OPTIMUM WATER CONTENT	11	(%)
MAXIMUM DRY DENSITY	1.78	(Mg/m³)

REMARKS

NAME O.P. Davies BA (Hons) SIGNED DATE 28-Apr-25
(Director / Head of Laboratory)

MURRAY RIX

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UKAS TESTING 1580

TEST CERTIFICATE

DRY DENSITY/WATER CONTENT RELATIONSHIP VIBRATING HAMMER
BS 1377-2:2022 Cl.11
PARTICLE DENSITY METHOD BS 1377-2:2022 Cl.9.2

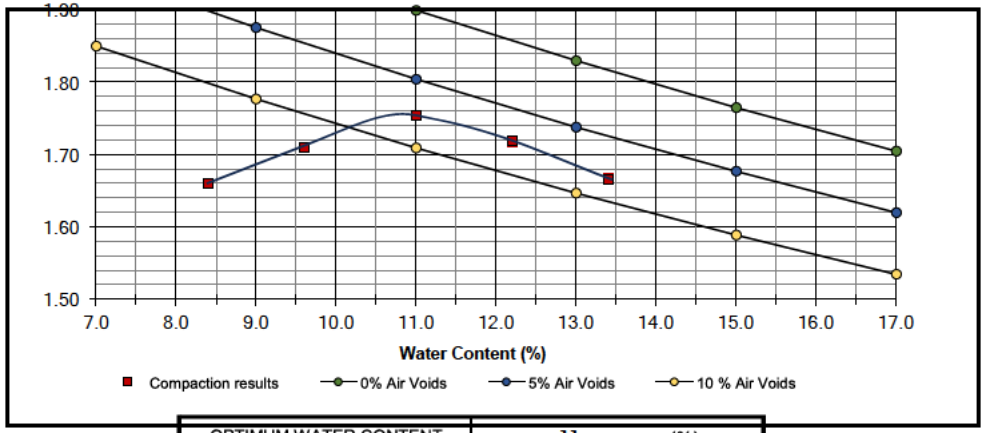
CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

SAMPLE LABEL	Sample 15	DATE SAMPLED	Not advised
SAMPLE NUMBER	5057804	DATE RECEIVED	08-Apr-25
DATE TESTED	12-Apr-25	SAMPLED BY	Client

MATERIAL	Recycled 6F2
ADVISED SOURCE	As client & site above
PRE TREATMENT	Air Dried / Separate Batches

RETAINED 37.5mm	49 %	GRADING ZONE	Zone X
RETAINED 20mm	68 %	PARTICLE DENSITY	2.40 Mg/m3 (Assumed)

POINT NUMBER	WATER CONTENT (%)	DRY DENSITY (Mg/m³)
1	8.4	1.660
2	9.6	1.710
3	11.0	1.754
4	12.2	1.718
5	13.4	1.666



OPTIMUM WATER CONTENT	11	(%)
MAXIMUM DRY DENSITY	1.75	(Mg/m³)

REMARKS

NAME O.P. Davies BA (Hons) SIGNED DATE 28-Apr-25
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UKAS TESTING 1580

TEST CERTIFICATE

DETERMINATION OF RESISTANCE TO FRAGMENTATION BY THE LOS ANGELES TEST METHOD

BS EN 1097-2:2020

CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

SAMPLE DETAILS

Laboratory sample number	:	5057801
Site mark	:	Sample 12
Advised source	:	As client & site above
Material	:	Recycled 6F2
Certificate of sampling received	:	No
Date and time of sampling	:	Not advised
Date received at Laboratory	:	08-Apr-25
Date of start of test	:	14-Apr-25
Sampling Location	:	Site
Method of sampling	:	BS EN 932-1 : 1997
Sampled by	:	Client
Size Fraction	:	35% passing 14mm retained 12.5mm 65% passing 12.5mm retained 10mm
Mass of dry sample tested	:	5000g
Target specification	:	<50

RESULT

Los Angeles Coefficient	:	**40**

Comment

SIGNED

NAME O.P. Davies BA (Hons)
(Director / Head of Laboratory)

DATE 28-Apr-25

MURRAY RIX

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DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870

UKAS TESTING 1580

TEST CERTIFICATE

DETERMINATION OF RESISTANCE TO FRAGMENTATION BY THE LOS ANGELES TEST METHOD

BS EN 1097-2:2020

CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

SAMPLE DETAILS

Laboratory sample number	:	5057802
Site mark	:	Sample 13
Advised source	:	As client & site above
Material	:	Recycled 6F2
Certificate of sampling received	:	No
Date and time of sampling	:	Not advised
Date received at Laboratory	:	08-Apr-25
Date of start of test	:	14-Apr-25
Sampling Location	:	Site
Method of sampling	:	BS EN 932-1 : 1997
Sampled by	:	Client
Size Fraction	:	34% passing 14mm retained 12.5mm 66% passing 12.5mm retained 10mm
Mass of dry sample tested	:	5000g
Target specification	:	<50

RESULT

Los Angeles Coefficient	:	**38**

Comment

SIGNED

NAME O.P. Davies BA (Hons)
(Director / Head of Laboratory)

DATE 28-Apr-25

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870

UKAS TESTING 1580

TEST CERTIFICATE

DETERMINATION OF RESISTANCE TO FRAGMENTATION BY THE LOS ANGELES TEST METHOD
BS EN 1097-2:2020

CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

SAMPLE DETAILS

Laboratory sample number	:	5057803
Site mark	:	Sample 14
Advised source	:	As client & site above
Material	:	Recycled 6F2
Certificate of sampling received	:	No
Date and time of sampling	:	Not advised
Date received at Laboratory	:	08-Apr-25
Date of start of test	:	14-Apr-25
Sampling Location	:	Site
Method of sampling	:	BS EN 932-1 : 1997
Sampled by	:	Client
Size Fraction	:	32% passing 14mm retained 12.5mm 68% passing 12.5mm retained 10mm
Mass of dry sample tested	:	5000g
Target specification	:	<50

RESULT

Los Angeles Coefficient	:	**38**

Comment

SIGNED

NAME O.P. Davies BA (Hons)
(Director / Head of Laboratory)

DATE 28-Apr-25

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870

UKAS TESTING 1580

TEST CERTIFICATE

DETERMINATION OF RESISTANCE TO FRAGMENTATION BY THE LOS ANGELES TEST METHOD

BS EN 1097-2:2020

CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

SAMPLE DETAILS

Laboratory sample number	:	5057804
Site mark	:	Sample 15
Advised source	:	As client & site above
Material	:	Recycled 6F2
Certificate of sampling received	:	No
Date and time of sampling	:	Not advised
Date received at Laboratory	:	08-Apr-25
Date of start of test	:	14-Apr-25
Sampling Location	:	Site
Method of sampling	:	BS EN 932-1 : 1997
Sampled by	:	Client
Size Fraction	:	34% passing 14mm retained 12.5mm 66% passing 12.5mm retained 10mm
Mass of dry sample tested	:	5000g
Target specification	:	<50

RESULT

Los Angeles Coefficient	:	**38**

Comment

SIGNED

NAME O.P. Davies BA (Hons)
(Director / Head of Laboratory)

DATE 28-Apr-25

MURRAY RIX

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UKAS TESTING 1580

TEST CERTIFICATE

DETERMINATION OF CONSTITUENTS OF COARSE RECYCLED AGGREGATE

BS EN 933-11:2009

CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

SAMPLE DETAILS

Laboratory sample number	:	5057801
Site mark	:	Sample 12
Advised source	:	As client & site above
Material	:	Recycled 6F2
Certificate of sampling received	:	No
Date and time of sampling	:	Not advised
Date received at Laboratory	:	08-Apr-25
Date of start of test	:	14-Apr-25
Sampling Location	:	Site
Method of sampling	:	BS EN 932-1 : 1997
Sampled by	:	Client
Mass of dry sample tested	:	50 kg
Drying Temperature	:	110 ± 5°C

RESULT

Constituent	Description	Proportion (%)
Rc	Concrete, Concrete products, Mortar, Concrete masonry units	**98**
Ru	Unbound aggregate, Natural stone, Hydraulically bound aggregate	**0.8**
Rb	Clay masonry units (i.e. bricks & tiles), Calcium silicate masonry units, Aerated non-floating concrete	**0.9**
Ra	Bituminous materials	**0.0**
Rg	Glass	**0.0**
X	Other: Cohesive (i.e. clay & soil), Metals (ferrous & non-ferrous), Non-floating wood, plastic & rubber, Gypsum plaster	**0.0**
FL	Floating Particles (cm^3/kg)	**0.0**

Comment

SIGNED

NAME O.P. Davies BA (Hons)
(Director / Head of Laboratory)

DATE 28-Apr-25

MURRAY RIX

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DUKINFIELD, CHESHIRE SK16 4QX
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UKAS TESTING 1580

TEST CERTIFICATE

DETERMINATION OF CONSTITUENTS OF COARSE RECYCLED AGGREGATE

BS EN 933-11:2009

CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

SAMPLE DETAILS

Laboratory sample number	:	5057802
Site mark	:	Sample 13
Advised source	:	As client & site above
Material	:	Recycled 6F2
Certificate of sampling received	:	No
Date and time of sampling	:	Not advised
Date received at Laboratory	:	08-Apr-25
Date of start of test	:	14-Apr-25
Sampling Location	:	Site
Method of sampling	:	BS EN 932-1 : 1997
Sampled by	:	Client
Mass of dry sample tested	:	50 kg
Drying Temperature	:	110 ± 5°C

RESULT

Constituent	Description	Proportion (%)
Rc	Concrete, Concrete products, Mortar, Concrete masonry units	**95**
Ru	Unbound aggregate, Natural stone, Hydraulically bound aggregate	**0.8**
Rb	Clay masonry units (i.e. bricks & tiles), Calcium silicate masonry units, Aerated non-floating concrete	**4.2**
Ra	Bituminous materials	**0.0**
Rg	Glass	**0.0**
X	Other: Cohesive (i.e. clay & soil), Metals (ferrous & non-ferrous), Non-floating wood, plastic & rubber, Gypsum plaster	**0.0**
FL	Floating Particles (cm^3/kg)	**0.0**

Comment

SIGNED

NAME O.P. Davies BA (Hons)
(Director / Head of Laboratory)

DATE 28-Apr-25

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TEL 0161 475 0870

UKAS TESTING 1580

TEST CERTIFICATE

DETERMINATION OF CONSTITUENTS OF COARSE RECYCLED AGGREGATE

BS EN 933-11:2009

CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

SAMPLE DETAILS

Laboratory sample number	:	5057803
Site mark	:	Sample 14
Advised source	:	As client & site above
Material	:	Recycled 6F2
Certificate of sampling received	:	No
Date and time of sampling	:	Not advised
Date received at Laboratory	:	08-Apr-25
Date of start of test	:	14-Apr-25
Sampling Location	:	Site
Method of sampling	:	BS EN 932-1 : 1997
Sampled by	:	Client
Mass of dry sample tested	:	50 kg
Drying Temperature	:	110 ± 5°C

RESULT

Constituent	Description	Proportion (%)
Rc	Concrete, Concrete products, Mortar, Concrete masonry units	**98**
Ru	Unbound aggregate, Natural stone, Hydraulically bound aggregate	**1.1**
Rb	Clay masonry units (i.e. bricks & tiles), Calcium silicate masonry units, Aerated non-floating concrete	**0.7**
Ra	Bituminous materials	**0.0**
Rg	Glass	**0.0**
X	Other: Cohesive (i.e. clay & soil), Metals (ferrous & non-ferrous), Non-floating wood, plastic & rubber, Gypsum plaster	**0.0**
FL	Floating Particles (cm^3/kg)	**0.0**

Comment

SIGNED

NAME O.P. Davies BA (Hons)
(Director / Head of Laboratory)

DATE 28-Apr-25

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UKAS TESTING 1580

TEST CERTIFICATE

DETERMINATION OF CONSTITUENTS OF COARSE RECYCLED AGGREGATE

BS EN 933-11:2009

CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

SAMPLE DETAILS

Laboratory sample number	:	5057804
Site mark	:	Sample 15
Advised source	:	As client & site above
Material	:	Recycled 6F2
Certificate of sampling received	:	No
Date and time of sampling	:	Not advised
Date received at Laboratory	:	08-Apr-25
Date of start of test	:	14-Apr-25
Sampling Location	:	Site
Method of sampling	:	BS EN 932-1 : 1997
Sampled by	:	Client
Mass of dry sample tested	:	50 kg
Drying Temperature	:	110 ± 5°C

RESULT

Constituent	Description	Proportion (%)
Rc	Concrete, Concrete products, Mortar, Concrete masonry units	**97**
Ru	Unbound aggregate, Natural stone, Hydraulically bound aggregate	**2.1**
Rb	Clay masonry units (i.e. bricks & tiles), Calcium silicate masonry units, Aerated non-floating concrete	**0.9**
Ra	Bituminous materials	**0.0**
Rg	Glass	**0.0**
X	Other: Cohesive (i.e. clay & soil), Metals (ferrous & non-ferrous), Non-floating wood, plastic & rubber, Gypsum plaster	**0.0**
FL	Floating Particles (cm^3/kg)	**0.0**

Comment

SIGNED

NAME O.P. Davies BA (Hons)
(Director / Head of Laboratory)

DATE 28-Apr-25

MURRAY RIX

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DUKINFIELD, CHESHIRE SK16 4QX
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TEST CERTIFICATE

DETERMINATION OF WATER-SOLUBLE SULFATES

BS EN 1744-1:2009+A1:2012, Cl. 10

CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

DATE SAMPLED	Not advised	DATE RECEIVED	08-Apr-25
DATE TESTED	12-Apr-25	SAMPLED BY	Client

Laboratory Sample Number	Site Reference	Aggregate Type	Water Soluble Sulfate % SO_4
5057801	Sample 12	Recycled 6F2	0.11
5057802	Sample 13	Recycled 6F2	0.08
5057803	Sample 14	Recycled 6F2	0.06
5057804	Sample 15	Recycled 6F2	0.09

COMMENT / ANOMALIES

NAME O.P. Davies BA (Hons) (Director / Head of Laboratory) SIGNED DATE 28-Apr-25

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
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TEST CERTIFICATE

DETERMINATION OF TOTAL SULFUR CONTENT

BS EN 1744-1:2009+A1:2012, Cl. 11

CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

DATE SAMPLED	Not advised	DATE RECEIVED	08-Apr-25
DATE TESTED	12-Apr-25	SAMPLED BY	Client

Laboratory Sample Number	Site Reference	Aggregate Type	Total Sulfur % S
5057801	Sample 12	Recycled 6F2	0.2
5057802	Sample 13	Recycled 6F2	0.2
5057803	Sample 14	Recycled 6F2	0.1
5057804	Sample 15	Recycled 6F2	0.3

COMMENT / ANOMALIES

NAME O.P. Davies BA (Hons)
(Director / Head of Laboratory)

SIGNED 

DATE 28-Apr-25

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
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TEST CERTIFICATE

DETERMINATION OF ACID-SOLUBLE SULFIDES

BS EN 1744-1:2009+A1:2012, Cl. 13

CLIENT	P.P. O'Connor Ltd
SITE	Eccles
JOB NUMBER	MRN 25009/4

DATE SAMPLED	Not advised	DATE RECEIVED	08-Apr-25
DATE TESTED	12-Apr-25	SAMPLED BY	Client

Laboratory Sample Number	Site Reference	Aggregate Type	Acid Soluble Sulfide % S
5057801	Sample 12	Recycled 6F2	<0.01
5057802	Sample 13	Recycled 6F2	<0.01
5057803	Sample 14	Recycled 6F2	<0.01
5057804	Sample 15	Recycled 6F2	<0.01

COMMENT / ANOMALIES

NAME O.P. Davies BA (Hons)
(Director / Head of Laboratory)

SIGNED 

DATE 28-Apr-25

Envirolab Analysis Dates

Lab Sample ID	25/03539/1	25/03539/2	25/03539/3	25/03539/4
Client Sample No				
Client Sample ID/Depth	Sample 12	Sample 13	Sampel 14	Sample 15
Date Sampled	04/04/25	04/04/25	04/04/25	04/04/25
A-T-007s	11/04/2025	11/04/2025	11/04/2025	11/04/2025
A-T-019s	14/04/2025	14/04/2025	14/04/2025	14/04/2025
A-T-024s	14/04/2025	14/04/2025	14/04/2025	14/04/2025
A-T-028s	15/04/2025	15/04/2025	15/04/2025	15/04/2025
A-T-031s	14/04/2025	14/04/2025	14/04/2025	14/04/2025
A-T-044	14/04/2025	14/04/2025	14/04/2025	14/04/2025
A-T-045	08/04/2025	08/04/2025	08/04/2025	08/04/2025
A-T-050s	09/04/2025	09/04/2025	09/04/2025	09/04/2025
A-T-072s	11/04/2025	11/04/2025	11/04/2025	11/04/2025

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

Appendix E Below ground concrete design

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	Pile Ref.	Date Installed	Date Record / Log Issued	PPL	Pile Design Length	Design Toe Level (mOD)	PPL	Pile Length Installed	Achieved Toe Level (mOD)
1	CP1	09/12/2025	10/12/2025	87.680	12	75.68	87.680	12.01	75.67
2	CP2	09/12/2025	10/12/2025	87.680	12	75.68	87.680	12.06	75.62
3	CP03	12/12/2025	15/12/2025	87.680	12	75.68	87.680	12.15	75.53
4	CP4	11/12/2025	12/12/2025	87.680	13.5	74.18	87.680	13.61	74.07
5	CP5	11/12/2025	12/12/2025	87.680	13.5	74.18	87.680	13.54	74.14
6	CP6	11/12/2025	12/12/2025	87.680	13.5	74.18	87.680	13.55	74.13
7	CP7	08/01/2026	09/01/2026	87.68	13.5	74.18	87.68	13.57	74.11

8	CP8	23/01/2026	23/01/2026	87.68	13.5	74.18	87.68	13.56	74.12
9	CP9	23/01/2026	23/01/2026	87.68	13.5	74.18	87.68	13.53	74.15
10	CP10	23/01/2026	23/01/2026	87.68	10.5	77.18	87.68	10.65	77.03
11	CP11	23/01/2026	23/01/2026	87.68	10.5	77.18	87.68	10.6	77.08
12	CP12	23/01/2026	23/01/2026	87.68	10	77.68	87.68	10.1	77.58
13	CP13	26/01/2026	27/01/2026	87.68	10	77.68	87.68	10.06	77.62
14	CP14	23/01/2026	23/01/2026	87.68	11.5	76.18	87.68	11.63	76.05
15	CP15	09/12/2025	10/12/2025	87.680	11	76.68	87.680	11.31	76.37
16	CP16	11/12/2025	12/12/2025	87.680	11	76.68	87.680	11.1	76.58
17	CP17	12/12/2025	15/12/2025	87.680	16.75	70.93	87.680	16.8	70.88

18	CP18	11/12/2025	12/12/2025	87.680	16.75	70.93	87.680	16.82	70.86
19	CP19	11/12/2025	12/12/2025	87.680	16.75	70.93	87.680	16.81	70.87
20	CP20	12/12/2025	15/12/2025	87.680	16.75	70.93	87.680	16.83	70.85
21	CP21	11/12/2025	12/12/2025	87.680	17.5	70.18	87.680	17.54	70.14
22	CP22	09/01/2026	12/01/2026	87.68	17.5	70.18	87.68	17.53	70.15
23	CP23	11/12/2025	12/12/2025	87.680	17.5	70.18	87.680	17.51	70.17
24	CP24	09/01/2026	12/01/2026	87.68	17.5	70.18	87.68	17.57	70.11
25	CP25	12/01/2026	13/01/2026	87.68	17.5	70.18	87.68	17.55	70.13
26	CP26	09/01/2026	12/01/2026	87.68	17.5	70.18	87.68	17.59	70.09
27	CP27	19/12/2025	22/12/2025	87.680	17.5	70.18	87.680	17.56	70.12

28	CP28	23/01/2026	23/01/2026	87.68	17.5	70.18	87.68	17.51	70.17
29	CP29	23/01/2026	23/01/2026	87.68	17.5	70.18	87.68	17.52	70.16
30	CP30	26/01/2026	27/01/2026	87.68	17.5	70.18	87.68	17.51	70.17
31	CP31	23/01/2026	23/01/2026	87.68	17.5	70.18	87.68	17.53	70.15
32	CP32	26/01/2026	27/01/2026	87.68	17.5	70.18	87.68	17.52	70.16
33	CP33	23/01/2026	23/01/2026	87.68	16.75	70.93	87.68	16.83	70.85
34	CP34	26/01/2026	27/01/2026	87.68	16.75	70.93	87.68	16.88	70.8
35	CP35	23/01/2026	23/01/2026	87.68	16.75	70.93	87.68	16.8	70.88
36	CP36	26/01/2026	27/01/2026	87.68	16.75	70.93	87.68	16.81	70.87
37	CP37	09/01/2026	12/01/2026	87.68	11	76.68	87.68	11.13	76.55

38	CP38	26/01/2026	27/01/2026	87.68	11	76.68	87.68	11.15	76.53
39	CP39	18/12/2025	19/12/2025	87.680	25.25	62.43	87.680	25.26	62.42
40	CP40	19/12/2025	22/12/2025	87.680	25.25	62.43	87.680	25.32	62.36
41	CP41	22/12/2025	06/01/2026	87.68	25.25	62.43	87.68	25.27	62.41
42	CP42	08/01/2026	09/01/2026	87.68	25.25	62.43	87.68	25.28	62.4
43	CP43	09/01/2026	12/01/2026	87.68	25.25	62.43	87.68	25.25	62.43
44	CP44	15/12/2025	16/12/2025	87.680	25.25	62.43	87.680	25.29	62.39
45	CP45	08/01/2026	09/01/2026	87.68	25.25	62.43	87.68	25.28	62.4
46	CP46	12/01/2026	13/01/2026	87.68	25.25	62.43	87.68	25.27	62.41

47	CP47	18/12/2025	19/12/2025	87.680	25.25	62.43	87.680	25.29	62.39
48	CP48	19/12/2025	22/12/2025	87.680	25.25	62.43	87.680	25.31	62.37
49	CP49	09/12/2025	10/12/2025	87.680	14.25	73.43	87.680	14.89	72.79
50	CP50	11/12/2025	12/12/2025	87.680	14.25	73.43	87.680	14.29	73.39
51	CP51	16/12/2025	17/12/2025	87.680	12.75	74.93	87.680	12.77	74.91
52	CP52	18/12/2025	19/12/2025	87.680	12.75	74.93	87.680	12.77	74.91
57	CP57	12/01/2026	13/01/2026	87.68	13	74.68	87.68	13.14	74.54
58	CP58	09/01/2026	12/01/2026	87.68	13	74.68	87.68	13.13	74.55
59	CP59	26/01/2026	27/01/2026	87.68	13	74.68	87.68	13.02	74.66
60	CP60	28/01/2026	29/01/2026	87.68	13	74.68	87.68	13.12	74.56

65	CP65	28/01/2026	29/01/2026	87.68	12.75	74.93	87.68	12.84	74.84
66	CP66	02/02/2026	03/02/2026	87.68	12.75	74.93	87.68	12.86	74.82
67	CP67	28/01/2026	29/01/2026	87.68	14.25	73.43	87.68	14.35	73.33
68	CP68	30/01/2026	02/02/2026	87.68	14.25	73.43	87.68	14.32	73.36
69	CP69	27/01/2026	28/01/2026	87.68	25.25	62.43	87.68	25.25	62.43
70	CP70	26/01/2026	27/01/2026	87.68	25.25	62.43	87.68	25.25	62.43
71	CP71	30/01/2026	02/02/2026	87.68	25.25	62.43	87.68	25.26	62.42
72	CP72	28/01/2026	29/01/2026	87.68	25.25	62.43	87.68	25.29	62.39

73	CP73	27/01/2026	28/01/2026	87.68	25.25	62.43	87.68	25.25	62.43
74	CP74	26/01/2026	27/01/2026	87.68	25.25	62.43	87.68	25.27	62.41
75	CP75	28/01/2026	29/01/2026	87.68	25.25	62.43	87.68	25.28	62.4
76	CP76	29/01/2026	29/01/2026	87.68	25.25	62.43	87.68	25.26	62.42
77	CP77	27/01/2026	28/01/2026	87.68	25.25	62.43	87.68	25.27	62.41
78	CP78	26/01/2026	27/01/2026	87.68	25.25	62.43	87.68	25.25	62.43
79	CP79	09/12/2025	10/12/2025	87.680	12.75	74.93	87.680	13.02	74.66
80	CP80	11/12/2025	12/12/2025	87.680	12.75	74.93	87.680	12.85	74.83

81	CP81	09/12/2025	10/12/2025	87.680	16	71.68	87.680	16.1	71.58
82	CP82	12/12/2025	15/12/2025	87.680	16	71.68	87.680	16.05	71.63
83	CP83	09/12/2025	10/12/2025	87.680	16	71.68	87.680	16.06	71.62
84	CP84	12/12/2025	15/12/2025	87.680	16	71.68	87.680	16.06	71.62
85	CP85	09/12/2025	10/12/2025	87.680	16	71.68	87.680	16.17	71.51
86	CP86	11/12/2025	12/12/2025	87.680	16	71.68	87.680	16.11	71.57
87	CP87	18/12/2025	19/12/2025	87.680	13.5	74.18	87.680	13.61	74.07
88	CP88	09/12/2025	10/12/2025	87.680	13.5	74.18	87.680	13.55	74.13
89	CP89	09/01/2026	12/01/2026	87.68	13.5	74.18	87.68	13.75	73.93

90	CP90	18/12/2025	19/12/2025	87.680	13.5	74.18	87.680	13.61	74.07
91	CP91	09/01/2026	12/01/2026	87.68	13.5	74.18	87.68	13.53	74.15
92	CP92	08/01/2026	09/01/2026	87.68	13.5	74.18	87.68	14.16	73.52
93	CP93	27/01/2026	28/01/2026	87.68	13.5	74.18	87.68	13.52	74.16
94	CP94	29/01/2026	29/01/2026	87.68	13.5	74.18	87.68	13.66	74.02
95	CP95	28/01/2026	29/01/2026	87.68	13.5	74.18	87.68	13.66	74.02
96	CP96	08/01/2026	09/01/2026	87.68	13.5	74.18	87.68	13.51	74.17
97	CP97	26/01/2026	27/01/2026	87.68	13.5	74.18	87.68	13.59	74.09
98	CP98	29/01/2026	29/01/2026	87.68	13.5	74.18	87.68	13.58	74.1

99	CP99	09/01/2026	12/01/2026	87.68	16	71.68	87.68	16.06	71.62
100	CP100	26/01/2026	27/01/2026	87.68	16	71.68	87.68	16.02	71.66
101	CP101	28/01/2026	29/01/2026	87.68	16	71.68	87.68	16.17	71.51
102	CP102	02/02/2026	03/02/2026	87.68	16	71.68	87.68	16.05	71.63
103	CP103	26/01/2026	27/01/2026	87.68	16	71.68	87.68	16.06	71.62
104	CP104	29/01/2026	29/01/2026	87.68	16	71.68	87.68	16.06	71.62
105	CP105	29/01/2026	29/01/2026	87.68	12.25	75.43	87.68	12.83	74.85
106	CP106	26/01/2026	27/01/2026	87.68	12.75	74.93	87.68	12.84	74.84
107	CP107	02/12/2025	02/12/2025	87.680	17.5	70.18	87.680	17.53	70.150
108	CP108	03/12/2025	04/12/2025	87.680	17.5	70.18	87.680	17.52	70.160
109	CP109	03/12/2025	04/12/2025	87.680	15.5	72.18	87.680	15.58	72.100
110	CP110	02/12/2025	02/12/2025	87.680	15.5	72.18	87.680	15.72	71.960

111	CP111	04/12/2025	05/12/2025	87.680	15.5	72.18	87.680	15.59	72.090
112	CP112	09/12/2025	10/12/2025	87.680	17.5	70.18	87.680	17.57	70.11
113	CP113	04/12/2025	05/12/2025	87.680	17.5	70.18	87.680	17.57	70.110
114	CP114	11/12/2025	12/12/2025	87.680	17.5	70.18	87.680	17.54	70.14
115	CP115	11/12/2025	12/12/2025	87.680	17.5	70.18	87.680	17.53	70.15
116	CP116	17/12/2025	18/12/2025	87.680	17.5	70.18	87.680	17.54	70.14
117	CP117	12/12/2025	15/12/2025	87.680	17.5	70.18	87.680	17.55	70.13
118	CP118	09/12/2025	10/12/2025	87.680	17.5	70.18	87.680	17.51	70.17
118	CP118	11/12/2025	12/12/2025	87.680	17.5	70.18	87.680	18.05	69.63

119	CP119	17/12/2025	18/12/2025	87.680	17.5	70.18	87.680	17.7	69.98
120	CP120	15/12/2025	16/12/2025	87.680	17.5	70.18	87.680	17.51	70.17
121	CP121	11/12/2025	12/12/2025	87.680	17.5	70.18	87.680	17.5	70.18
122	CP122	08/01/2026	09/01/2026	87.68	17.5	70.18	87.68	18.08	69.6
123	CP123	15/12/2025	16/12/2025	87.680	17.5	70.18	87.680	17.51	70.17
124	CP124	27/01/2026	28/01/2026	87.68	17.5	70.18	87.68	17.51	70.17
125	CP125	29/01/2026	29/01/2026	87.68	17.5	70.18	87.68	17.52	70.16
126	CP126	30/01/2026	02/02/2026	87.68	17.5	70.18	87.68	17.52	70.16

127	CP127	28/01/2026	29/01/2026	87.68	17.5	70.18	87.68	17.56	70.12
128	CP128	29/01/2026	29/01/2026	87.68	17.5	70.18	87.68	17.51	70.17
129	CP129	30/01/2026	02/02/2026	87.68	17.5	70.18	87.68	17.53	70.15
130	CP130	28/01/2026	29/01/2026	87.68	17.5	70.18	87.68	17.51	70.17
131	CP131	29/01/2026	29/01/2026	87.68	17.5	70.18	87.68	17.5	70.18
132	CP132	30/01/2026	02/02/2026	87.68	17.5	70.18	87.68	17.54	70.14
133	CP133	28/01/2026	29/01/2026	87.68	17.5	70.18	87.68	17.51	70.17
134	CP134	29/01/2026	29/01/2026	87.68	17.5	70.18	87.68	17.53	70.15
135	CP135	30/01/2026	02/02/2026	87.68	17.5	70.18	87.68	17.53	70.15
136	CP136	28/01/2026	29/01/2026	87.68	15.5	72.18	87.68	15.52	72.16

137	CP137	29/01/2026	29/01/2026	87.68	15.5	72.18	87.68	15.55	72.13
138	CP138	02/02/2026	03/02/2026	87.68	15.5	72.18	87.68	15.59	72.09
139	CP139	29/01/2026	29/01/2026	87.68	17.5	70.18	87.68	17.53	70.15
140	CP140	28/01/2026	29/01/2026	87.68	17.5	70.18	87.68	17.53	70.15
141	CP141	27/11/2025	01/12/2025	87.680	15.5	72.180	87.680	15.66	72.020
142	CP142	28/11/2025	01/12/2025	87.680	15.5	72.180	87.680	15.52	72.160
143	CP143	19/01/2026	20/01/2026	87.68	15.5	72.18	87.68	15.57	72.11
144	CP144	20/01/2026	21/01/2026	87.68	15.5	72.18	87.68	15.57	72.11
145	CP145	24/11/2025	25/11/2025	87.680	18.75	68.930	87.680	18.76	68.920
146	CP146	02/12/2025	02/12/2025	87.680	18.75	68.93	87.680	18.76	68.920
147	CP147	26/11/2025	01/12/2025	87.680	18.75	68.930	87.680	18.77	68.910
148	CP148	26/11/2025	01/12/2025	87.680	18.75	68.930	87.680	18.79	68.890
149	CP149	28/11/2025	01/12/2025	87.680	18.75	68.930	87.680	18.76	68.920

150	CP150	03/12/2025	04/12/2025	87.680	18.75	68.93	87.680	18.76	68.920
151	CP151	28/11/2025	01/12/2025	87.680	21.5	66.180	87.680	21.52	66.160
152	CP152	01/12/2025	02/12/2025	87.680	21.5	66.18	87.680	21.53	66.150
153	CP153	28/11/2025	01/12/2025	87.680	21.5	66.180	87.680	21.51	66.170
154	CP154	26/11/2025	01/12/2025	87.680	21.5	66.180	87.680	21.52	66.160
155	CP155	01/12/2025	02/12/2025	87.680	21.5	66.18	87.680	21.57	66.110
156	CP156	26/11/2025	01/12/2025	87.680	21.5	66.180	87.680	21.51	66.170
157	CP157	02/12/2025	02/12/2025	87.680	21.5	66.18	87.680	21.51	66.170
158	CP158	28/11/2025	01/12/2025	87.680	21.5	66.180	87.680	21.53	66.150
159	CP159	27/11/2025	01/12/2025	87.680	21.5	66.180	87.680	21.51	66.170
160	CP160	01/12/2025	02/12/2025	87.680	16.75	70.93	87.680	16.81	70.870
161	CP161	28/11/2025	01/12/2025	87.680	16.75	70.930	87.680	16.8	70.880
162	CP162	27/11/2025	01/12/2025	87.680	16.75	70.930	87.680	16.81	70.870
163	CP163	03/12/2025	04/12/2025	87.680	16.75	70.93	87.680	18.86	68.820
164	CP164	17/12/2025	18/12/2025	87.680	16.75	70.93	87.680	16.8	70.88
165	CP165	04/12/2025	05/12/2025	87.680	16.75	70.93	87.680	16.76	70.920
166	CP166	02/12/2025	02/12/2025	87.680	17.5	70.18	87.680	17.5	70.180
167	CP167	28/11/2025	01/12/2025	87.680	17.5	70.180	87.680	17.55	70.130

168	CP168	15/12/2025	16/12/2025	87.680	17.5	70.18	87.680	17.52	70.16
169	CP169	03/12/2025	04/12/2025	87.680	17.5	70.18	87.680	17.54	70.140
170	CP170	01/12/2025	02/12/2025	87.680	17.5	70.18	87.680	17.55	70.130
171	CP171	18/12/2025	19/12/2025	87.680	17.5	70.18	87.680	17.5	70.18
172	CP172	15/12/2025	16/12/2025	87.680	17.5	70.18	87.680	17.51	70.17
173	CP173	03/12/2025	04/12/2025	87.680	17.5	70.18	87.680	17.51	70.170
174	CP174	17/12/2025	18/12/2025	87.680	17.5	70.18	87.680	17.52	70.16
175	CP175	16/12/2025	17/12/2025	87.680	17.5	70.18	87.680	17.53	70.15
176	CP176	04/12/2025	05/12/2025	87.680	17.5	70.18	87.680	17.61	70.070
177	CP177	09/01/2026	12/01/2026	87.68	17.5	70.18	87.68	17.54	70.14
178	CP178	16/12/2025	17/12/2025	87.680	17.5	70.18	87.680	17.51	70.17

179	CP179	15/01/2026	16/01/2026	87.68	17.5	70.18	87.68	17.59	70.09
180	CP180	15/01/2026	16/01/2026	87.68	17.5	70.18	87.68	17.53	70.15
181	CP181	17/12/2025	18/12/2025	87.680	17.5	70.18	87.680	17.53	70.15
182	CP182	16/01/2026	19/01/2026	87.68	17.5	70.18	87.68	17.52	70.16
183	CP183	16/01/2026	19/01/2026	87.68	17.5	70.18	87.68	17.57	70.11
184	CP184	16/12/2025	17/12/2025	87.680	17.5	70.18	87.680	17.58	70.1
185	CP185	16/01/2026	19/01/2026	87.68	17.5	70.18	87.68	17.58	70.1
186	CP186	15/01/2026	16/01/2026	87.68	17.5	70.18	87.68	17.51	70.17
187	CP187	17/12/2025	18/12/2025	87.680	17.5	70.18	87.680	17.53	70.15

188	CP188	13/01/2026	14/01/2026	87.68	17.5	70.18	87.68	18.06	69.62
189	CP189	19/01/2026	20/01/2026	87.68	16.75	70.93	87.68	16.83	70.85
190	CP190	16/01/2026	19/01/2026	87.68	16.75	70.93	87.68	16.83	70.85
191	CP191	15/01/2026	16/01/2026	87.68	16.75	70.93	87.68	16.8	70.88
192	CP192	16/01/2026	19/01/2026	87.68	16.75	70.93	87.68	16.97	70.71
193	CP193	19/01/2026	20/01/2026	87.68	16.75	70.93	87.68	16.97	70.71
194	CP194	19/01/2026	20/01/2026	87.68	16.75	70.93	87.68	16.83	70.85
195	CP195	20/01/2026	21/01/2026	87.68	16.75	70.93	87.68	16.83	70.85

196	CP196	15/01/2026	16/01/2026	87.68	16.75	70.93	87.68	16.91	70.77
197	CP197	16/01/2026	19/01/2026	87.68	16.75	70.93	87.68	18.8	68.88
198	CP198	19/01/2026	20/01/2026	87.68	16.75	70.93	87.68	16.86	70.82
199	CP199	14/01/2026	15/01/2026	87.68	18.75	68.93	87.68	18.79	68.89
200	CP200	16/01/2026	19/01/2026	87.68	18.75	68.93	87.68	18.77	68.91
201	CP201	15/01/2026	16/01/2026	87.68	18.75	68.93	87.68	18.82	68.86
202	CP202	19/01/2026	20/01/2026	87.68	18.75	68.93	87.68	18.8	68.88
203	CP203	19/12/2025	22/12/2025	87.680	18.75	68.93	87.680	18.83	68.85
204	CP204	15/01/2026	16/01/2026	87.68	18.75	68.93	87.68	18.8	68.88
205	CP205	24/11/2025	25/11/2025	87.680	15.75	71.930	87.680	15.8	71.880
206	CP206	26/11/2025	01/12/2025	87.680	15.75	71.930	87.680	15.77	71.910
207	CP207	25/11/2025	26/11/2025	87.680	15.75	71.930	87.680	15.77	71.910

208	CP208	20/11/2025	21/11/2025	87.680	26	61.680	87.680	26.02	61.660
209	CP209	04/12/2025	05/12/2025	87.680	26	61.68	87.680	26.52	61.160
210	CP210	15/12/2025	16/12/2025	87.680	26	61.68	87.680	26.01	61.67
211	CP211	24/11/2025	25/11/2025	87.680	26	61.680	87.680	26.05	61.630
212	CP212	27/11/2025	01/12/2025	87.680	26	61.680	87.680	26.01	61.670

213	CP213	01/12/2025	02/12/2025	87.680	26	61.68	87.680	26.01	61.670
214	CP214	16/12/2025	17/12/2025	87.680	26	61.68	87.680	26.01	61.67
215	CP215	02/12/2025	02/12/2025	87.680	26	61.68	87.680	26.01	61.670
216	CP216	02/12/2025	02/12/2025	87.680	26	61.68	87.680	26.05	61.630
217	CP217	25/11/2025	26/11/2025	87.680	26	61.680	87.680	26.00	61.680
218	CP218	03/12/2025	04/12/2025	87.680	26	61.68	87.680	26.01	61.670
219	CP219	20/11/2025	21/11/2025	87.680	26	61.680	87.680	26.01	61.670
220	CP220	02/12/2025	02/12/2025	87.680	26	61.68	87.680	26.01	61.670
221	CP221	25/11/2025	26/11/2025	87.680	26	61.680	87.680	26.00	61.680

222	CP222	18/11/2025	19/11/2025	87.680	26.00	61.680	87.680	26.030	61.64
223	CP223	21/11/2025	24/11/2025	87.680	26	61.680	87.680	26.02	61.660
224	CP224	27/11/2025	01/12/2025	87.680	26	61.680	87.680	26.01	61.670
225	CP225	15/12/2025	16/12/2025	87.680	26	61.68	87.680	26.01	61.67
226	CP226	25/11/2025	26/11/2025	87.680	26	61.680	87.680	26.01	61.670
227	CP227	03/12/2025	04/12/2025	87.680	26	61.68	87.680	26.02	61.660
228	CP228	16/12/2025	17/12/2025	87.680	26	61.68	87.680	26.01	61.67
229	CP229	24/11/2025	25/11/2025	87.680	26	61.680	87.680	26.01	61.670

230	CP230	18/11/2025	19/11/2025	87.680	26.00	61.680	87.680	26.030	61.64
231	CP231	01/12/2025	02/12/2025	87.680	26	61.68	87.680	26.02	61.660
232	CP232	02/12/2025	02/12/2025	87.680	26	61.68	87.680	26.01	61.670
233	CP233	19/11/2025	20/11/2025	87.680	26.00	61.680	87.680	26.01	61.670
234	CP234	27/11/2025	01/12/2025	87.680	26	61.680	87.680	26.04	61.640
235	CP235	01/12/2025	02/12/2025	87.680	26	61.68	87.680	26.01	61.670
236	CP236	18/11/2025	19/11/2025	87.680	26.00	61.680	87.680	26.040	61.64
237	CP237	15/12/2025	16/12/2025	87.680	26	61.68	87.680	26.04	61.64
238	CP238	03/12/2025	04/12/2025	87.680	26	61.68	87.680	26.5	61.180
239	CP239	08/01/2026	09/01/2026	87.68	17	70.68	87.68	17.06	70.62
240	CP240	03/12/2025	04/12/2025	87.680	17	70.68	87.680	17.02	70.660

241	CP241	18/12/2025	19/12/2025	87.680	17	70.68	87.680	17.06	70.62
242	CP242	04/12/2025	05/12/2025	87.680		87.68	87.680	1.75	85.930
242	CP242	16/12/2025	17/12/2025	87.680	17	70.68	87.680	17.01	70.67
243	CP243	21/01/2026	22/01/2026	87.68	17	70.68	87.68	17.05	70.63
244	CP244	04/12/2025	05/12/2025	87.680	17	70.68	87.680	17.47	70.210
245	CP245	16/12/2025	17/12/2025	87.680	17	70.68	87.680	17.08	70.6
246	CP246	17/12/2025	18/12/2025	87.680	17	70.68	87.680	17.03	70.65
247	CP247	21/01/2026	22/01/2026	87.68	26	61.68	87.68	26.01	61.67

248	CP248	14/01/2026	15/01/2026	87.68	26	61.68	87.68	26.03	61.65
249	CP249	20/01/2026	21/01/2026	87.68	26	61.68	87.68	26.52	61.16
250	CP250	14/01/2026	15/01/2026	87.68	26	61.68	87.68	26.56	61.12
251	CP251	15/01/2026	16/01/2026	87.68	26	61.68	87.68	26.53	61.15

252	CP252	21/11/2025	24/11/2025	87.680	26	61.680	87.680	26.01	61.670
253	CP253	24/11/2025	25/11/2025	87.680	26	61.680	87.680	26.01	61.670
254	CP254	25/11/2025	26/11/2025	87.680	26	61.680	87.680	26.02	61.660
255	CP255	21/11/2025	24/11/2025	87.680	26	61.680	87.680	26.04	61.640
256	CP256	24/11/2025	25/11/2025	87.680	26	61.680	87.680	26.01	61.670
257	CP257	13/01/2026	14/01/2026	87.68	26	61.68	87.68	26.01	61.67
258	CP258	14/01/2026	15/01/2026	87.68	26	61.68	87.68	26.01	61.67
259	CP259	20/01/2026	21/01/2026	87.68	26	61.68	87.68	26.57	61.11
260	CP260	17/12/2025	18/12/2025	87.680	26	61.68	87.680	26.55	61.13

261	CP261	13/01/2026	14/01/2026	87.68	26	61.68	87.68	26.02	61.66
262	CP262	26/11/2025	01/12/2025	87.680	26	61.680	87.680	26.05	61.630
263	CP263	19/11/2025	20/11/2025	87.680	26.00	61.680	87.680	26.04	61.640
264	CP264	16/01/2026	19/01/2026	87.68	26	61.68	87.68	26.03	61.65
265	CP265	15/01/2026	16/01/2026	87.68	26	61.68	87.68	26.04	61.64
266	CP266	19/01/2026	20/01/2026	87.68	26	61.68	87.68	26.53	61.15
267	CP267	25/11/2025	26/11/2025	87.680	26	61.680	87.680	26.04	61.640
268	CP268	16/12/2025	17/12/2025	87.680	26	61.68	87.680	26	61.68

269	CP269	19/11/2025	20/11/2025	87.680	26.00	61.680	87.680	26.50	61.180
270	CP270	20/01/2026	21/01/2026	87.68	26	61.68	87.68	26.04	61.64
271	CP271	24/11/2025	25/11/2025	87.680	26	61.680	87.680	26.06	61.620
271	CP271	25/11/2025	26/11/2025	87.680	26	61.680	87.680	26.59	61.090
272	CP272	21/11/2025	24/11/2025	87.680	26	61.680	87.680	26.01	61.670
273	CP273	24/11/2025	25/11/2025	87.680	26	61.680	87.680	26.03	61.650
274	CP274	13/01/2026	14/01/2026	87.68	26	61.68	87.68	26.05	61.63

275	CP275	14/01/2026	15/01/2026	87.68	26	61.68	87.68	26.03	61.65
276	CP276	15/01/2026	16/01/2026	87.68	26	61.68	87.68	26.53	61.15
277	CP277	13/01/2026	14/01/2026	87.68	26	61.68	87.68	26.55	61.13
278	CP278	20/01/2026	21/01/2026	87.68	26	61.68	87.68	26.01	61.67
279	CP279	15/01/2026	16/01/2026	87.68	26	61.68	87.68	26.03	61.65
280	CP280	19/12/2025	22/12/2025	87.680	26	61.68	87.680	26.03	61.65
281	CP281	21/01/2026	22/01/2026	87.68	26	61.68	87.68	26.01	61.67

282	CP282	19/01/2026	20/01/2026	87.68	26	61.68	87.68	26.04	61.64
283	CP283	13/01/2026	14/01/2026	87.68	26	61.68	87.68	26.02	61.66
284	CP284	19/11/2025	20/11/2025	87.680	15.00	72.680	87.680	15.06	72.620
285	CP285	20/11/2025	21/11/2025	87.680	15	72.680	87.680	15.06	72.620
286	CP286	24/11/2025	25/11/2025	87.680	15	72.680	87.680	15.03	72.650
287	CP287	20/11/2025	21/11/2025	87.680	16	71.680	87.680	16.05	71.630
288	CP288	24/11/2025	25/11/2025	87.680	16	71.680	87.680	16.06	71.620
289	CP289	25/11/2025	26/11/2025	87.680	16	71.680	87.680	16.06	71.620
290	CP290	19/11/2025	20/11/2025	87.680	16.00	71.680	87.680	16.08	71.600
291	CP291	20/11/2025	21/11/2025	87.680	16	71.680	87.680	16.05	71.630
292	CP292	24/11/2025	25/11/2025	87.680	16	71.680	87.680	16.09	71.590
293	CP293	25/11/2025	26/11/2025	87.680	16	71.680	87.680	16.07	71.610
294	CP294	19/11/2025	20/11/2025	87.680	16.00	71.680	87.680	16.07	71.610

295	CP295	20/11/2025	21/11/2025	87.680	16	71.680	87.680	16.1	71.580
296	CP296	24/11/2025	25/11/2025	87.680	16	71.680	87.680	16.04	71.640
297	CP297	25/11/2025	26/11/2025	87.680	16	71.680	87.680	16.41	71.270
298	CP298	19/11/2025	20/11/2025	87.680	16.00	71.680	87.680	16.04	71.640
299	CP299	17/12/2025	18/12/2025	87.680	17.5	70.18	87.680	17.5	70.18
300	CP300	04/12/2025	05/12/2025	87.680	17.5	70.18	87.680	17.53	70.150
301	CP301	15/12/2025	16/12/2025	87.680	17.5	70.18	87.680	17.5	70.18
302	CP302	16/12/2025	17/12/2025	87.680	17.5	70.18	87.680	17.5	70.18
303	CP303	21/01/2026	22/01/2026	87.68	17.5	70.18	87.68	17.54	70.14
304	CP304	04/12/2025	05/12/2025	87.680	17.5	70.18	87.680	17.52	70.160
305	CP305	16/12/2025	17/12/2025	87.680	17.5	70.18	87.680	17.54	70.14
306	CP306	17/12/2025	18/12/2025	87.680	17.5	70.18	87.680	17.65	70.03

307	CP307	15/01/2026	16/01/2026	87.68	16	71.68	87.68	16.11	71.57
308	CP308	13/01/2026	14/01/2026	87.68	16	71.68	87.68	16.05	71.63
309	CP309	17/12/2025	18/12/2025	87.680	16	71.68	87.680	16.07	71.61
310	CP310	16/12/2025	17/12/2025	87.680	16	71.68	87.680	16.24	71.44
311	CP311	20/01/2026	21/01/2026	87.68	16	71.68	87.68	16.06	71.62
312	CP312	13/01/2026	14/01/2026	87.68	16	71.68	87.68	16.03	71.65
313	CP313	14/01/2026	15/01/2026	87.68	16	71.68	87.68	16.05	71.63
314	CP314	19/01/2026	20/01/2026	87.68	16	71.68	87.68	16.03	71.65
315	CP315	20/01/2026	21/01/2026	87.68	16	71.68	87.68	16.06	71.62

316	CP316	13/01/2026	14/01/2026	87.68	16	71.68	87.68	16.07	71.61
317	CP317	19/01/2026	20/01/2026	87.68	16	71.68	87.68	16.06	71.62
318	CP318	14/01/2026	15/01/2026	87.68	16	71.68	87.68	16.03	71.65
319	CP319	14/01/2026	15/01/2026	87.68	15	72.68	87.68	15.04	72.64
320	CP320	15/01/2026	16/01/2026	87.68	15	72.68	87.68	15.09	72.59
321	CP321	19/01/2026	20/01/2026	87.68	15	72.68	87.68	15.06	72.62
322	CP322	18/12/2025	19/12/2025	87.680	12.25	75.43	87.680	12.35	75.33
323	CP323	08/01/2026	09/01/2026	87.68	12.25	75.43	87.68	12.32	75.36
324	CP324	08/01/2026	09/01/2026	87.68	12.25	75.43	87.68	12.36	75.32
325	CP325	18/12/2025	19/12/2025	87.680	12.25	75.43	87.680	12.33	75.35

326	CP326	18/12/2025	19/12/2025	87.680	12.25	75.43	87.680	12.37	75.31
327	CP327	08/01/2026	09/01/2026	87.68	12.25	75.43	87.68	12.29	75.39
328	CP328	26/01/2026	27/01/2026	87.68	12.25	75.43	87.68	12.45	75.23
329	CP329	02/02/2026	03/02/2026	87.68	12.25	75.43	87.68	12.28	75.4
330	CP330	29/01/2026	29/01/2026	87.68	12.25	75.43	87.68	12.49	75.19
331	CP331	26/01/2026	27/01/2026	87.68	12.25	75.43	87.68	12.32	75.36

332	CP332	26/01/2026	27/01/2026	87.68	12.25	75.43	87.68	12.36	75.32
333	CP333	02/02/2026	03/02/2026	87.68	12.25	75.43	87.68	12.29	75.39
334	CP334	12/12/2025	15/12/2025	87.680	10	77.68	87.680	10.09	77.59
335	CP335	15/12/2025	16/12/2025	87.680	10	77.68	87.680	10	77.68
336	CP336	15/12/2025	16/12/2025	87.680	10	77.68	87.680	10.08	77.6
337	CP337	16/12/2025	17/12/2025	87.680	10	77.68	87.680	10.05	77.63
338	CP338	30/01/2026	02/02/2026	87.68	10	77.68	87.68	10.09	77.59
339	CP339	28/01/2026	29/01/2026	87.68	10	77.68	87.68	10.22	77.46
340	CP340	30/01/2026	02/02/2026	87.68	10	77.68	87.68	10.05	77.63
341	CP341	28/01/2026	29/01/2026	87.68	10	77.68	87.68	10.08	77.6

342	CP342	02/12/2025	02/12/2025	87.680	26	61.68	87.680	26.03	61.650
343	CP343	12/01/2026	13/01/2026	87.68	17	70.68	87.68	17.07	70.61
TWP01	TWP01	30/01/2026	02/02/2026	87.68	10	77.68	87.68	10.03	77.65
TWP02	TWP02	30/01/2026	02/02/2026	87.68	10	77.68	87.68	10.06	77.62
TWP03	TWP03	28/01/2026	29/01/2026	87.68	10	77.68	87.68	10.09	77.59

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