Amended Site Condition Report for permit variation EPR/QP3634DQ/V002

Star Brands Limited, Dunlop Road, Redditch, B97 5XP

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Quality Assurance – Approval Status

This document has been prepared and checked in accordance with
Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS EN ISO 45001:2018)

Revision	Status	Date	Prepared by	Checked by	Approved by
P01	S5	18 June 2025	Kristina Himmler	Kenny Wintle	Dave Allen

Comments

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Comments

Revision		Status	
P*nn*	Preliminary (shared; non-contractual)	S1	Coordination
C*nn*	Contractual	S2	Information
		S3	Review & Comment
		S4	Review & Authorise
		S5	Review & Acceptance
		A0, A1, A*n*	Authorised & Accepted (*n*=work stage if applicable)

Disclaimer

This report has been prepared by Waterman Infrastructure & Environment Ltd, with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporation of our General Terms and Condition of Business and taking account of the resources devoted to us by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

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1. Introduction

1.1 Objectives

Waterman Infrastructure & Environment Limited ("Waterman") was instructed by Star Brands Limited to support an application for variation for a bespoke environmental permit. The applicant is required to provide an updated, amended Site Condition Report (SCR). This report updates the application site condition report (ASCR) prepared for the 2016 permit application.

1.2 Permitted Activity

The Site remains in industrial use, manufacturing cleaning products for laundry, surface care and specialist applications. The manufacturing process involves blending the required raw materials, testing to ensure conformity to specification and filling packaging for distribution to customers. An associated neutralisation activity requires a permit under the Environmental Permitting (England and Wales) Regulations 2016, Schedule 1, Part 2, Section 4.1 A(1)(a)(xi) for the production of surface-active agents.

The site condition report is being updated as part of a permit variation application to obtain a bespoke environmental permit and to extend the installation boundary.

The regulated activity requiring an environmental permit has not changed. However, operational changes in the liquid product department mean that daily and annual average daily waste volumes from the facility now exceed the respective Low Impact Installation (LII) criteria. Therefore, the existing Standard Rule SR2009No2 is no longer suitable. The remainder of the LII criteria continue to be met, as was shown in 2023 and 2024 annual reporting for the installation.

Additionally, the business has taken on an additional unit (Unit 29) to accommodate raw material storage and handling as a result of increased production. This necessitates a change to the installation boundary.

1.3 Regulatory Context

This report presents information required to respond to Application Form Part C2 question 5.

1.4 Constraints

The assessment was undertaken in accordance with the scope agreed between Waterman and Star Brands Limited, as documented in Waterman's fee letters (WIE20871-102-WAT-XX-XX-QN-N-76 F001 and WIE20871-102-WAT-XX-XX-QN-N-76 F002, dated 8 January 2025 and 10 March 2025, respectively) and with Waterman's standard Terms of Appointment.

The benefit of this report is made to Star Brands Limited.

The information contained in this report is based on a review of available historical, geological and hydrogeological sources and observations made on site during visits between January and May 2025.

Waterman has endeavoured to assess all information provided to them during this investigation but makes no guarantees or warranties as to the accuracy or completeness of this information.

The scope of this investigation does not include an assessment for the presence of asbestos containing materials within or below buildings or in the ground at the site.

The conclusions resulting from this study are not necessarily indicative of future conditions or operating practices at or adjacent to the site.

2. Methodology

This amended Site Condition Report has been undertaken in general accordance with the Environment Agency (EA) guidance H5 *"Site condition report – guidance and templates"*[1] and EC guidance concerning baseline reports[2].

The ASCR prepared in 2016 forms the basis of the report and has been amended accordingly and as described in each section of the report.

Additional land to be included into the installation boundary has been considered and assessed alongside operational changes of receiving, storing raw material into Unit 29 instead of Unit 21, and transfer to and from these units when required for production.

In 2016, no IED stage 1 to 3 assessment was undertaken. The Stage 1 to 3 assessment is included in this amended SCR as Section 4.

[1] Environment Agency Horizontal Guidance H5 "site condition report – guidance and templates" version 3 April 2013
[2] EC guidance concerning baseline reports - Official Journal of the EU, C136/3, 6 May 2014

3. Site Condition Report – Sections 1 to 3

3.1 Site Details

1.0 SITE DETAILS	
Name of the applicant	Star Brands Limited
Activity address	Dunlop Road
National grid reference	403500, 264097
Document reference and dates for Site Condition Report at permit application and surrender	Application Site Condition Report: WIE11276-100-R-2-2-1 - Site Condition Report, dated October 2016 A permit surrender report is not required at this time.
Document references for site plans (including location and boundaries)	Updated site layout, installation boundary plan and site drainage plans are included in application documentation bundle as Appendix B to the supporting document 20871102-WAT-XX-XX-RP-N-78-P01.01.

3.2 Site Setting

2.0 Condition of the land at permit issue	
Environmental setting including: • geology • hydrogeology • surface waters	**Site description** The Site comprises several industrial units (Units 17, 21, 23 and 29) located on the Hunt End Industrial Estate on Dunlop Road, Redditch. The site area covered within the existing and proposed installation boundary shares a yard area with other Star Brands activities in the southwest of the site, that are not part of the regulated activity but under full operational control of Star Brands Limited (as explained in detail in the supporting documentation 20871102-WAT-XX-XX-RP-N-78-P01.01). The yard area is covered with concrete hard standing and there are no areas of soft ground within the installation boundary. There are a number of open surface water gullies receiving surface water runoff from the shared yard area. The new installation boundary showing the existing and additional land to be included in the permit are shown in Appendix B - Figure 1 of the supporting documentation report (20871102-WAT-XX-XX-RP-N-78-P01.01). **Site reconnaissance** A site reconnaissance visit was undertaken 20 March 2025 to understand physical and operational changes to be addressed in the variation, including the additional land to be included within the installation boundary. **Existing installation boundary** The existing installation has remains unchanged including Units 17, 21 and 23, apart from steam generating plant now being located outside Unit 17. **Areas to be added to the installation boundary** One additional unit (Unit 29) will be added into the installation boundary. This addition is required as Unit 29 is now used to receive and temporarily store raw materials to be used in the regulated process. As a result, a small additional area of yard has also been included within the installation boundary to reflect the movement of these raw materials during delivery and transfer to production in Unit 21.

Site infrastructure

The Site infrastructure has not changed since the permit was originally issued in 2016. The building units and yard areas are leased from the landlord. The yard is concrete hard surfaced throughout with a public surface water drain running through the centre of the yard. Star Brands has installed some additional infrastructure since the 2016 permit application, but buildings and outside equipment are not part of the regulated activity and do not represent directly associated activities. There is a reception portacabin at the entrance to the yard.

A recent utility survey of the Hunt Industrial Estate was undertaken in 2022. The drainage schematic for the installation has been updated accordingly and is presented in Appendix B of the supporting documentation (20871102-WAT-XX-XX-RP-N-78-P01.01). Copies of the full utility survey report and drawings are available from the site's Engineering Department.

Site surroundings

A summary of the current surrounding land uses, including relevant licences and consents, is shown in Table 1.

Table 1: Summary of surrounding land uses

Location	Description
North	An access road and further industrial units are located to the north beyond which is an area of woodland. An electrical substation is present 33m to the northwest and tanks 135m to the northwest
East	Further industrial units occupied by Star Brands are located to the east.
South	Enfield Road is located to the south beyond which are residential properties.
West	Further industrial units are located to the west beyond which is an area of woodland.

There are no environmental permits, COMAH, former NIHHS authorisations, radioactive substances, hazardous substances consents, licensed waste management facilities or landfills within 500m of the Site.

Geology

The geology beneath the site has been established from the British Geological Survey (BGS) 1: 50,000 scale Geological Map, sheet no. 183 provided by Groundsure and from public ally available borehole records held by the BGS.

A summary of the geology is provided in Table 2.

Table 2: Site geology

Stratum	Area Covered	Estimated Thickness	Typical Description
Made Ground	Unconfirmed	0 – 1.8m	Sand, bricks, roots and stones
Mercia Mudstone Group	Entire site		Dominantly red, less commonly green-grey, mudstones and subordinate siltstones with thick halite-bearing units in some basinal areas. Thin beds of gypsum/anhydrite widespread; sandstones are also present.

The BGS map reveals a fault runs across the site.

According to the dataset there is a moderate potential for landslide ground stability hazards.

The site is not in an area that could be affected by coal mining activity.

Ground Gas

There are no registered landfills within 500m of the subject site.

According to information from Public Health England, the site is not located in an area of elevated radon gas levels (a naturally occurring gas). Correspondingly, radon protection measures are not required in the development of new buildings or extensions. However, in 2009 the Health Protection Agency ((HPA), now Public Health England) recommended that radon protection measures be built into all new occupied buildings in the UK, whether or not they were situated in radon sensitive area as identified by British Geological Survey (BGS) maps. The Building Regulations Advisory Committee supported the HPA's proposal. However, the then Government rejected this recommendation, and the current Building Regulations (2013) do not include it.

Controlled waters

Groundwater

Mercia mudstone group underlying the Site are classified as a Secondary B Aquifer. This aquifer has predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers.

	No natural superficial deposits underlying the Site have been recorded, however, borehole logs have identified made ground at the site. The presence and flow or shallow perched groundwater is therefore dependent on the permeability of the makeup of made ground. No shallow groundwater was identified in borehole logs reviewed. The Site is not within a groundwater protection zone. There are no groundwater abstractions or discharges within 1km of the Site. Flooding from groundwater is considered unlikely in this area. Surface waters The nearest surface water is the Wharrage, which flows through a culvert 15m to the northwest. The closest exposed area of the river is located 75m to the southwest. The EA has not classified the ecological potential of this surface water body under the Water Framework Directive. There are no recorded surface water discharge consents within a 1km radius of the Site. There is one recorded environmental incident within 500m of the Site. This occurred 190m to the southwest in 2005. The incident involved surfactants and detergents and is recorded as having a significant water impact. There are no recorded groundwater abstractions within a 1km radius of the Site. The Site is at very low to predicted to rise to low chance of yearly flooding from surface water, and a very low chance of yearly flooding from rivers and the sea in accordance with the EA long term flood risk assessment. **Ecological Systems** Sensitive ecological receptors were identified based on a Nature and Heritage Conservation Screening report for bespoke installations provided by the EA as part of the pre-application process in 2016. This was further supported by appropriate web-based searches including via https://magic.defra.gov.uk/ and the Redditch Borough Council local Plan No 4 (Policy 16 sites). There are numerous ecological sites within a 2 km radius comprising broadleaved, mixed and yew woodland as well as ancient woodland and presence of good quality semi-improved grassland. The woodland adjacent to the southwest of the site has been identified a UK Biodiversity Action Plan (BAP) priority habitat and is the closest of all identified ecological systems of note.
Pollution history including: • pollution incidents that may have affected land	A review of historical maps obtained from Groundsure Enviro Insight report has been undertaken. **Error! Reference source not found.** summarises the relevant information in chronological order. This has not been updated from the ASCR.

- historical land-uses and associated contaminants
- any visual/olfactory evidence of existing contamination
- evidence of damage to pollution prevention measures

Table 3: Site history

Source	Site	Surroundings
1884 1:2,500	***Needle works*** encroached on the northern site boundary Steam in the centre of the site and a pond in the south.	***Needle works*** immediately to the northeast. ***Pits*** 470m west
1903 1:10,560	***Cycle works*** in the southern section of the site ***Infilling*** of a former pond	***Cycle works*** extending to the east, south and west of the site. ***Pits*** 415m northeast
1927 1:2,500	***Accumulator works*** in the southern section of the site ***Unspecified tank*** in the south ***Ground works*** associated with modification of the onsite stream	***Accumulator works*** extending to the east, south and west of the site.
1946 1:2,500	***Accumulator works*** extends to northern section of the site. Further ***Ground works*** associated with modification of the onsite stream.	***Tanks*** 80m to the west ***Pit*** 100m to the northwest
1965 1:2,500	No significant changes	***Sawmill*** 130m to the northeast ***Tank*** 140m to the northwest
1979	No significant changes	***Pits*** 315 m and 335m east
1981-1983	Accumulator works have been demolished	Accumulator works have been demolished ***Infilling*** of pits to the northeast
1983 1:2,500	Site redeveloped to current ***industrial*** layout	The sawmill is no longer denoted
1986 1:10,000	No significant changes	***Pits*** 335m east
1989 -1933 1:2,500	No significant changes	The tank to the west is no longer denoted

Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification reports (where available)	No previous assessments have been undertaken at the site.
Baseline soil and groundwater reference data	No previous assessments have been undertaken at the site. At the time of application for a Standard Rule (SR) environmental permit in 2016, reasoning for not obtaining baseline data was set out in Section 4 of the Application Site Condition Report (ASCR) as summarised below. The contamination potential of the historic land use established through the review of historical mapping available for the site was interpreted by using the DoE Industry Profiles; and in particular the profile for Engineering works, mechanical engineering and ordnance works. Compared to the materials that are used on the site at present and will continue to be used in the future there is very little commonality apart from the presence of bases and sodium hypochloride. Both groups of chemicals are not persistent contaminants in the ground or groundwater and are more of concern when looking at acute contamination of surface waters. They can, however, have secondary effects such as changing the pH or mobilising contamination. There is considered to be a very low risk of contamination of the underlying soil/ groundwater as a result of the current activities due to the following practices and control measures in place on the site: • industrial units are of recent construction and are in good condition in particular referring to the condition of the internal floor slab and the external yard surfacing; • regular inspections as to the condition of the building and surface fabric are undertaken as part of the monthly housekeeping audits and records are made and retained; • periodic drainage survey;' • any defects in the condition of the building and surface fabric are recorded, reported and rectified as soon as practicable; • internal storage of all raw materials, final products and production waste materials with no internal drains; no storage of relevant hazardous substances on soft ground or without secondary containment offered by the building fabric; • pollution prevention measures in place during non- operational hours include physical barriers at weak points in the secondary containment of the building (openings internal and external);

	• additional pollution prevention measures in place during higher risk activities such as liquid raw material delivery and liquid waste collection by placing drain covers over the surface water gullies in the yard; • presence of spill kits, condition and completeness monitored by regular inspection, staff are suitably trained in use of kits as demonstrated by training records and the recording of emergency drills; and • small to medium size raw material and waste containers, product is despatched in small individual retail units. There is considered to be a low risk of the current / future activities adding to historic contamination potentially present in the soil or groundwater, due to the nature of the materials used on the site (i.e., the current / future materials are unlikely to have been present historically). In addition, there are physical and procedural control measures in place that would prevent any significant levels of contamination reaching underlying soil and groundwater, which it is reasonable to assume will be maintained to the current standard. Relevant records will be made and retained by the applicant for use in the future to support a "low risk surrender" of the environmental permit. Therefore, obtaining reference data for the site is hence considered not to be required.
Supporting information	Groundsure Enviro Insight report – dataset (2016)

3.3 Permitted Activities

3.0 Permitted activities	
Permitted activities	Star Brands currently holds a Standard Rule permit SR2009 No2 – Low Impact Installation (LII) permit for the manufacture of cleaning products for domestic and non-domestic markets. The proposed activities that fall within the EPR regime are manufacturing of cleaning products covering laundry, surface care and specialist applications. The manufacturing process involves blending the required raw materials, testing to ensure conformity to specification and filling. The regulated activity is referred to as the 'liquid product department'. A key ingredient in many recipes are organic salts. The salts are produced through the neutralisation reaction of a sulphonic and fatty acids and a neutralising agent. This process requires an environmental permit under Schedule 1, Part 2, Section 4.1 A(1)(a)(xi) (surface active agents) to the Environmental Permitting (England and Wales) Regulations 2016. The regulated activities are undertaken at Units 17, 21 and 23. The permit variation application will also add Unit 29, reflecting raw material storage in this unit that is connected with the regulated activity as a directly associated activity.

	Paste and powder-based products are manufactured in units 25 and 27 on the trading estate using mixing and blending processes only: these are not a chemical production process, as defined under Environmental Permitting (England and Wales) Regulations, 2016, as amended, and do not use organic chemicals produced by the regulated activities. As a result, a permit is not required for paste and powder production processes and therefore this permit variation application relates only to the liquid production activity. This is clearly demonstrated by excluding unit 25 and 27 from the installation boundary, as seen in site layout and installation boundary plan in Appendix B of the supporting documentation (20871102-WAT-XX-XX-RP-N-78-P01.01). Directly associated activities are the purification of tap water, the operation of steam generating plant and the storage of raw materials within Unit 29. The yard within the installation boundary is only used for delivery of raw materials and despatch of final products and waste.
Non-permitted activities undertaken	There are other activities on site which have been excluded from the installation which are the blending and filling of powder products (Units 25 and 27) and the storage of empty final product containers i.e. plastic bottles and tubs (Units 15 and 19).
Document references for: • plan showing activity layout; and • environmental risk assessment.	An Installation Boundary and Site Layout plan has been included into the supporting documentation: 20871102-WAT-XX-XX-RP-N-78-P01.01 Appendix B.a The environmental risk assessment is set out in Section 9 of the supporting documentation 20871102-WAT-XX-XX-RP-N-78-P01.01.

4. Site condition report sections 4 to 7

4.0 Changes to the Activity	
Have there been any changes to the activity boundary?	The new installation boundary showing the existing and additional land to be included in the permit are shown in Figure 1 within Appendix B of the supporting documentation report 20871102-WAT-XX-XX-RP-N-78-P01.01.
Have there been any changes to the permitted activities?	The regulated activities undertaken at Units 17, 21 and 23 have not changed significantly since the since the time of the original standard rule (SR2009 No 2 – Low Impact Installation (LII)) permit application in 2016. The changes that triggered the need for this variation application are associated with increase in production within both the regulated activity (liquid production). The main operational changes in the liquid product department relate to the storage and disposal of detergent washings and the delivery and storage location for raw materials. Due to these changes, the facility can no longer comply with all LII criteria. An additional unit (Unit 29) has been leased to accommodate raw material storage and handling as a result of increased production. This has expanded the land included in the installation boundary and is the main reason for producing this updated site condition report. Directly associated activities from the 2016 application continue (purification of tap water and operation of steam generating plant). Raw material storage within Unit 29 will become an additional directly associated activity as part of the variation. The steam plant is now located outside Unit 17, which has also led to a minor increase in installaiotn boundary. The yard within the installation boundary is only used for delivery of raw materials and despatch of final products and waste.
Have any 'dangerous substances' not identified in the Application Site Condition Report been used or produced as a result of the permitted activities?	There are no additional Relevant Hazardous Substances (RHSs) brought onto site in connection to the regulated activity. However, annual consumption of raw material chemicals identified as RHSs have increased overall due to increased production.
Baseline soil and groundwater reference data – IED Stage 1-3 Assessment for existing and additional land	As set out in Section 3 above, no reference data were considered to be required in 2016. Changes to the installation since the 2016 permit application have not led to any changes to this conclusion. The nature of the chemicals that are classed as RHSs and other potentially polluting substances used at the site have not changed since 2016 and the assessment and statement made in 2016 remain valid. In 2016 no IED stage 1 to 3 assessment was undertaken. This has been rectified below and as Appendices A and B.

included in installation boundary	**IED Implementation – Baseline reports - Stage 1 and 2 Assessment - RHSs and their pollution potential** A list of all raw and ancillary materials categorised as RHSs and other potentially polluting substances handled or used inside the installation boundary is presented in Appendix A to this report. There are no liquid hazardous intermediates at the Site. Products and waste streams are considered to be a dilute version of the RHSs identified as raw materials. Approximately 70% of the water consumed remains within the products and wastes are either out of spec product or further diluted wash waters removed off site in IBCs. In addition, products leave the site in small individual plastic bottles, while raw materials are delivered into bulk tanks or in IBCs and drums. Products and wastes are stored inside the Units 21 and Unit 23 until loaded for removal off site. Hence any risks to underlying soil or groundwater from liquid products or waste is addressed within the assessment of RHS raw material chemicals and ancillary materials. The Table in Appendix A determines the potential pollution risk of each RHS group by considering their chemical and physical properties, such as composition, state, toxicity and persistence. In this instance, all RHSs were taken forward to Stage 3 for further assessment even if the potential for contamination was rated as low. **IED Implementation – Baseline reports - Stage 3 Assessment – actual possibility for soil and groundwater contamination** This stage identifies the actual possibility of soil or groundwater contamination at the installation for RHSs brought forward from Stage 2. This is determined by assessing the probability and consequences of any releases taking account of: • The quantities of each RHS or groups of similar rhss; • How and where the rhss are stored, used and transported around the installation; • Where they pose a risk of release; and • Measures adopted to prevent the contamination of soil or groundwater. The Stage 3 assessment is presented in Appendix B to this report. The Stage 3 assessment concluded that the likelihood of contamination occurring as a result of delivery, storage and handling of RHSs at the site is unlikely.
Checklist of supporting information	See Appendix A and B to this report,

5.0 Measures taken to protect the land

Pollution prevention measures in place since the original permit was issued have been inspected regularly. Plant and equipment have been inspected, serviced and maintained as part of a preventative maintenance system. The Site operates a written environmental management system in line with the requirements set out on the EA website and relevant BAT Conclusions. This is described in more detail in Section 3 to the supporting documentation (20871102-WAT-XX-XX-RP-N-78-P01.01).

Pollution prevention measures broadly comprise the following:

- External and all internal areas at the site are covered in concrete hardstanding;
- There are no drains inside buildings within the installation boundary;
- The site operates a just in time policy for raw materials on site for the majority of chemicals, which reduces the volume of materials on site at any one time. Non bulk materials present cover 48 hours of production only;
- Live raw material stock control (updated daily);
- Secondary containment measures provided by the buildings and barriers for building openings – placed outside operational hours;
- Clamp down drain covers are placed during each bulk chemical delivery;
- Detailed and comprehensive delivery procedures, all deliveries (bulk and non-bulk) are supervised fully by star brands operators;
- Process control systems with monitoring of key parameters (e.g., volume delivered, fill levels, pressure), alarms and automatic cut of product flow if high level alarm is activated;
- Daily and weekly checks and inspections of bulk tanks, plant and equipment, inclusive of pollution control measures;
- Spill response procedure, spill kits and spill response training and refreshers; and
- The planned preventative maintenance system.

More detail on the above is presented in Sections 4 and 5 to the main supporting documentation (20871102-WAT-XX-XX-RP-N-78-P01.01).

Checklist of supporting information	Main supporting documentation 20871102-WAT-XX-XX-RP-N-78-P01.01

6.0 Pollution incidents that may have had an impact on land, and their remediation

Pollution incidents

Since permit was issued, environmental incidents have been recorded, investigated and improvement measures implemented to prevent re-occurrence.

There have been no incidents that were assessed as significantly affecting or potentially affecting the environment requiring notification of the EA under permit condition 4.3.1. None of the incidents on record led to an emission off site (e.g., to ground and hence groundwater or to surface water drains). All releases were contained through deploying barriers, drain covers and spill kits in accordance with the spill control procedure.

Since 2022, incidents have been reported and managed through the DigiLEAN software platform. Incident reports from 2022 onward include spill incidents, but do not include any incidents suspected to have led to offsite impacts or impacts on underlying land or groundwater. The DigiLEAN system covers all of Star Brands' activities across the wider site, including paste and powder operations in Units 25 and 27, which are outside the installation boundary.

For the liquid product department, all internal incidents that led to the release of raw material, waste or product from primary containment did not leave the confines of the building and hence did not reach underlying soil or groundwater. Volumes of releases on record range from 10kg to one incident where a bulk tank overflowed during delivery. The latter incident was the most significant since the permit issue and led to a comprehensive review of the bulk delivery procedure. Deliveries are now required to be supervised by the tanker driver and a Star Brands operator, and tanks may now only be filled to 95% of the maximum fill level.

External incidents recorded in DigiLEAN (in the yard) are summarised in Table 4.

Table 4: Summary of external chemical spill category incidents recorded on DigiLEAN since 2022

Year	Spill incidents in period	Incident details
2022	3	1) IBC arrived on site damaged, as discovered during a visual inspection. The IBC was not unloaded and no spillage on site occurred. 2) An IBC fell off a forklift truck, which resulted in a bent IBC cage (metal frame) but no damage to the plastic primary containment. A spill did not occur. 3) A floor cleaning machine hose became attached, leading to some spillage of wash water into the yard. The lost materials were contained and no escape off site occurred via unmade ground or drainage.
2023	0	N/A
2024	1	1) A pipe detached from a bulk delivery tanker, spilling liquids it contained into the yard. The spill was contained and no escape off site occurred via unmade ground or drainage.
2025 thus far	3	1) Product for rework stored in IBC was spilt in the yard due to forklift truck driver error. The spill was contained and no escape off site occurred via unmade ground or drainage. 2) A split in the flexible hose connecting the tanker to a tank inlet occurred during a bulk delivery. This led to some material being sprayed into the yard. The spill was contained and no escape off site occurred via unmade ground or drainage. 3) 2 IBCs fell off a forklift truck into the yard. No escape of chemicals occurred.

Checklist of supporting information	Summary of spills extracted from DigiLEAN software platform since start of use in 2022

Appendices

A. IED assessment Stage 1 and 2

B. IED Assessment Stage 3

We are Waterman, where every project matters

We deliver progressive, sustainability-driven environmental and engineering consultancy services across every sector. We think differently, and we're harnessing our collective expertise to deliver greener, healthier and well-connected communities, networks and built environments.

Based in strategic locations throughout the UK and Ireland, our team of specialists is at the forefront of tackling the climate emergency and forging a path to a Net Zero built environment.

UK & Ireland Office Locations

Appendix C – Stage 1 and 2 of IED baseline report assessment - Hazardous substances on site and their pollution potential

Hazardous substances/ groups	Chemical and physical properties (Hazard Statements/codes)	Potential pollution risk to soil and groundwater
Raw materials		
CWA – Solvents/ Flammables		
CWA504, 513, 506, 514, 516	Liquid ECOTOXICITY - fish toxicity – LC50 values range from >100 to >10,000 mg/l - invertebrates toxicity – LC50 values range from >100 to >10,000 mg/l - aquatic plants/ Growth inhibition – (CWA 506) ErC50 1,466 mg/l - algae microorganisms – EC50 range from >100 to >1000mg/l DEGRADATION – readily biodegradable. BIOACCUMULATION is unlikely or low potential PERSISTING, BIOACCUMULATING OR TOXIC (PBT) OR VERY PERSISTING VERY BIOACCUMULATING (vPvB) – not considered to contain components considered to be PBT or vPvB ***Hazard statements/ codes*** H225 – highly flammable liquid and vapour H226 – flammable liquid and vapour H319 - Causes serious eye irritation H336 – May cause drowsiness or dizziness H371 – may cause damage to organs H302+H312+H332 – harmful if swallowed, in contact with skin or if inhaled	Low potential
CWB – preservatives and biocides		
CWB815, 816, 829, 823, 834, 826, 833, 832	Liquid ECOTOXICITY - fish toxicity – LC50 values range from >0.1 to 484 mg/l - invertebrates toxicity – LC50 values range from 0.016 to >100 mg/l - aquatic plants/ Growth inhibition – (CWA 506) ErC50 >0.01 to >100 mg/l - microorganisms – EC50 range from to 5 to >100mg/l PERSISTENCE/DEGRADABILITY – readily biodegradable BIOACCUMMULATION – no bioaccumulation expected or low potential PBT and vPvB - not considered to contain components considered to be PBT or vPvB	Medium to high potential

	Hazards Statements/ codes H226 - flammable liquid and vapour H302 - acute oral toxicity H314 - skin corrosion/ irritation H315 - Causes skin irritation H318 - Causes serious eye damage H319 - Causes serious eye irritation. H332 - Harmful if inhaled. H336 - May cause drowsiness or dizziness H400 - Very toxic to aquatic life. H410 - Very toxic to aquatic life with long lasting effects. H411 - Toxic to aquatic life with long lasting effects. H412 - Harmful to aquatic life with long lasting effects	
CWD - surfactants		
CWD242, 249, 265, 272, 284, 287, 295, 302, 308, 309, 312, 321, 331, 334	Liquid ECOTOXICITY - fish toxicity – LC50 values range from 1-100 mg/l - invertebrates toxicity – LC50 values range from 1-100 mg/l - aquatic plants/ Growth inhibition – ErC50 0.24-100 mg/l - microorganisms – EC50 range from to 24 to >560 mg/l PERSISTENCE/DEGRADABILITY – readily biodegradable BIOACCUMMULATION – no bioaccumulation expected or low potential PBT and vPvB - not considered to contain components considered to be PBT or vPvB **Hazards Statements/ codes for mixture** H302 - acute oral toxicity H315 - Causes skin irritation H318 - Causes serious eye damage H319 - Causes serious eye irritation. H400 - Very toxic to aquatic life. H411 - Toxic to aquatic life with long lasting effects. H412 - Harmful to aquatic life with long lasting effects	Medium potential

CWE - fragrances		
46 different chemicals used CWE707 to CWE983	Liquid ECOTOXICITY - fish toxicity – LC50 values range from 1-100 mg/l - invertebrates toxicity – LC50 values range from 1-100 mg/l - aquatic plants/ Growth inhibition – ErC50 0.24-100 mg/l - microorganisms – EC50 range from to 24 to >560 mg/l PERSISTENCE/DEGRADABILITY – ranges from no data, via not degradable (2%) to readily biodegradable (100%) BIOACCUMMULATION – component BCF ranges from 64 to 1584, mostly no data or low BCF below a 100 PBT and vPvB - not considered to contain components considered to be PBT or vPvB **Hazards Statements/ codes for mixture** H226 - flammable liquid and vapour H302 - acute oral toxicity H304 May be fatal if swallowed and enters airways H315 - Causes skin irritation H318 - Causes serious eye damage H319 - Causes serious eye irritation H332 - Harmful if inhaled. H335 - May cause respiratory irritation. H336 - May cause drowsiness or dizziness H360Fd - May damage fertility. Suspected of damaging the unborn child H361 - Suspected of damaging fertility or the unborn child H400 - Very toxic to aquatic life. H411 - Toxic to aquatic life with long lasting effects. H412 - Harmful to aquatic life with long lasting effects	Medium to high potential
CWM - Polymers		
CWM946 and CWM976	Liquid and solid ECOTOXICITY - fish toxicity – LC50 values range from 1-10 mg/l - invertebrates toxicity – LC50 values range from 1-10 mg/l	Medium potential

	- aquatic plants/ Growth inhibition – ErC50 0.6-20 mg/l PERSISTENCE/DEGRADABILITY: components not biodegradable to readily biodegradable BIOACCUMULATION POTENTIAL: some bioaccumulation potential; highest stated BCF >3000 PBT & v PvB ASSESSMENT: not considered to contain components considered to be PBT or vPvB **Hazard statements and codes** H315: Causes skin irritation. H318 - Causes serious eye damage H319 - Causes serious eye irritation H412 - Harmful to aquatic life with long lasting effects	
CWT - Dyes		
CWT645 and CWT620	Solid ECOTOXICITY – no data PERSISTENCE/DEGRADABILITY: no data BIOACCUMULATION POTENTIAL: no data PBT & v PvB ASSESSMENT: not considered to contain components considered to be PBT or vPvB **Hazards Statements/ codes** H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation H412 - Harmful to aquatic life with long lasting effects	Medium potential
CWW – Agents – brighteners etc		
CWW413, CWW430 CWW510	Liquid and solid ECOTOXICITY - fish toxicity – LC50 values range from 0.06 to 8.2 mg/l - invertebrates toxicity – LC50 values range from 0.14-0.17 mg/l - aquatic plants/ Growth inhibition – ErC50 0.041 mg/l PERSISTENCE/DEGRADABILITY – N/A and readily biodegradable BIOACCUMMULATION – does not bioaccumulate PBT and vPvB - not considered to contain components considered to be PBT or vPvB **Hazards Statements/ codes** H290 - May be corrosive to metals.	Medium to High potential

	H314 - Causes severe skin burns and eye damage. H318 - Causes serious eye damage H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled H410 - Very toxic to aquatic life with long lasting effects. H412 - Harmful to aquatic life with long lasting effects	
CWW403, 466, 502, 511, 512, 507	Liquid and solid ECOTOXICITY - fish toxicity – ranges from not considered toxic to fish to LC50 values 1.3 to >100mg/l - invertebrates toxicity – LC50 values range from >100 mg/l - aquatic plants/ Growth inhibition – EC50 >100 mg/l PERSISTENCE/DEGRADABILITY – N/A and readily biodegradable BIOACCUMMULATION – ranges from does not bioaccumulate to does not significantly bioaccumulate) PBT and vPvB - not considered to contain components considered to be PBT or vPvB **Hazards Statements/ codes** H290 - May be corrosive to metals. H314 - Causes severe skin burns and eye damage. H318 - Causes serious eye damage H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled H335 - May cause respiratory irritation.	Low potential
CWX - Additives		
CWX340	Liquid and solid ECOTOXICITY - invertebrates toxicity – LC50 22.4 mg/l - aquatic plants/ Growth inhibition – EC50 5.38 mg/l PERSISTENCE/DEGRADABILITY – not readily biodegradable BIOACCUMMULATION – does not bioaccumulate PBT and vPvB - not considered to contain components considered to be PBT or vPvB **Hazards Statements/ codes** H411 - Toxic to aquatic life with long lasting effects.	Medium potential
CWX303, 310, 317, 318, 323, 326, 333,	Liquid and solid (CWX310) ECOTOXICITY	Low potential

336, 338, 339	- fish toxicity – ranges from not considered toxic to fish to LC50 values 75 to 349mg/l - invertebrates toxicity – LC50 values range from 65to >300 mg/l - aquatic plants/ Growth inhibition – EC50 ranges from 2.5 to >300 mg/l PERSISTENCE/DEGRADABILITY – ranges form not biodegradable to readily biodegradable BIOACCUMMULATION – does not bioaccumulate PBT and vPvB - not considered to contain components considered to be PBT or vPvB **Hazards Statements/ codes** H290 - May be corrosive to metals H302 - Acute oral toxicity H304 - May be fatal if swallowed and enters airways H315 - Causes skin irritation H318 - Causes serious eye damage H319 - Causes serious eye irritation H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled H335 - May cause respiratory irritation H302+H312+H332 – harmful if swallowed, in contact with skin or if inhaled	
Ancillary materials		
Maintenance consumables **Only solvent cleaner and WD40 considered here – everything else is of insignificant volume**	Liquid ECOTOXICITY - fish toxicity – LC50 data ranges from 2.6 to >1000 mg/l; NOE(C)(LR) ranges from 0.13-1.3 mg/l - invertebrates toxicity – EC50 values >1000 mg/l; NOEC 0.96 mg/l - algae – EC50 ranges from 4.36 to >1000 mg/l; NOELR 3 mg/l PERSISTENCE/DEGRADABILITY – readily biodegradable (WD40) BIOACCUMMULATION – high potential to bioaccumulate (WD40) PBT and vPvB - not considered to contain components considered to be PBT or vPvB **Hazards Statements/ codes** H226 - Flammable liquid and vapor. H304 - May be fatal if swallowed and enters airways. H312+H332 - Harmful in contact with skin or if inhaled. H315 - Causes skin irritation. H319 - Causes serious eye irritation. H335 - May cause respiratory irritation. H336 - May cause drowsiness or dizziness	Low to medium potential

	H373 - May cause damage to organs (hearing organs) through prolonged or repeated exposure. H373 - May cause damage to organs (Central nervous system, Liver, Kidney) through prolonged or repeated exposure if inhaled. H412 - Harmful to aquatic life with long lasting effects.	
DI chemicals **HCL and NaOH**	Liquid ECOTOXICITY - fish toxicity – ranges from not classified as dangerous to the environment to LC50 20.5 mg/l - invertebrates toxicity – ranges from not classified as dangerous to the environment to EC50 values 0.45 mg/l - algae – ranges from not classified as dangerous to the environment to EC50 0.73 mg/l PERSISTENCE/DEGRADABILITY – expected to be biodegradable BIOACCUMMULATION – not expected to bioaccumulate PBT and vPvB - not considered to contain components considered to be PBT or vPvB **Hazards Statements/ codes** H290 – May be corrosive to metals H314 - Causes severe skin burns and eye damage H319 - Causes serious eye irritation. H335 - May cause respiratory irritation.	Medium potential

Appendix B - Stage 3 of IED baseline report assessment

Site Operation	hazardous substance with pollution potential	Potential for Pollution from relevant activity	Relevant Activity	Records of notified, relevant recorded accidental releases with potential for ground/ groundwater contamination*	Existence of pollution prevention measures	max volumes held on site at any one time	Nature of Primary Containment	Testing and Inspection of Primary Containment	Nature of Secondary Containment	Testing and Inspection of Secondary Containment	Nature of Tertiary Containment	Testing and Inspection of Tertiary Containment	Adequacy of Pollution prevention measure Yes/No	Are the proposed testing and inspection of pollution prevention measures adequate yes / no?	Circumstances under which emission occur (accidents; routine operations; planned emission)	Is there an adequate documented management system to demonstrate operator management and competence?	likelihood of contamination
	CWA – Solvents/ Flammables	low potential	delivery	none	delivery and spill procedures, secondary containment, spill kits	n/a	max size of container is 1000l - reinforced metal IBCs	Visual inspection during delivery, storage and onward usage of container, live stock control updated daily	n/a	n/a	none	n/a	Yes	Yes	accidental release from damaged primary (IBC) and secondary containment at the same time as well as damaged site and public surface water drains	Yes	unlikely
			storage	none	just in time delivery - minimal stock on site for 48h production, secondary containment pallet bunds	1000l			mobile pallet bunds	part of daily pre-use checks	factory building, no internal drains	part of building maintenance controlled through CMMS Freshdesk	Yes	Yes		Yes	unlikely
			use	none	just in time delivery - minimal stock on site for 48h production, building provides secondary containment as no internal drains, spill kits throughout manufacturing area				located internally, building provides secondary containment - no internal drains	part of building maintenance			Yes	Yes	none - no internal drains, small individual volumes	Yes	unlikely
	CWB – preservatives and biocides	medium to high potential	delivery	none	delivery and spill procedures, spill kits	n/a	1000 l IBCs	Visual inspection during delivery, storage and onward usage of container, live stock control updated daily	n/a	n/a	none	n/a	Yes	Yes	accidental release from damaged IBC and damaged site and public storm water drain at the same time	Yes	unlikely
			storage	none	just in time delivery - minimal stock on site for 48h production, building provides secondary containment as no internal drains, spill kits throughout manufacturing area	1000l IBC			located internally, building provides secondary containment - no internal drains	part of building maintenance	factory building, no internal drains	part of building maintenance	Yes	Yes	none - no internal drains, small individual volumes	Yes	unlikely
			use	none		1000l IBC							Yes	Yes		Yes	unlikely
	CWD - surfactants	medium potential	delivery	one	delivery and spill procedures, spill kits - bulk delivery procedures in place and spill kits	n/a	30,000 kg bulk tank or IBC or 200kg drum	Daily inspection of bulk tanks and connected pipework condition and for signs of leakage Visual inspection of non bulk containers delivery, storage and onward usage of container, live stock control updated daily	impermeable hard standing in the yard and clamp down drain covers during delivery	inspection of drain cover condition after every bulk delivery, periodic inspection of yard surface covering condition and repair if required	impermeable hard standing in the yard and clamp down drain covers during delivery	inspection of drain cover condition after every bulk delivery, periodic inspection of yard surface covering condition and repair if required	Yes	Yes	accidental release - spill pathway - broken clamp down drain covers and surface water drainage runs at the same time	Yes	unlikely
			storage	none	building providing secondary containment - no internal drains, spill barriers for all entrances, minimal non bulk materials - just in time - 48h production only	150000 kg			located internally, building provides secondary containment - no internal drains; spill barriers for all entrances	building maintenance; inspection of spill barriers after every placement	factory building, no internal drains	part of building maintenance	Yes	Yes	accidental release - spill pathway - broken/ misaligned building entrance barriers and surface water drainage runs at the same time	Yes	unlikely
			use	none		n/a							Yes	Yes		Yes	unlikely

Site Operation	hazardous substance with pollution potential	Potential for Pollution from relevant activity	Relevant Activity	Records of notified, relevant recorded accidental releases with potential for ground/ groundwater contamination*	Existence of pollution prevention measures	max volumes held on site at any one time	Nature of Primary Containment	Testing and Inspection of Primary Containment	Nature of Secondary Containment	Testing and Inspection of Secondary Containment	Nature of Tertiary Containment	Testing and Inspection of Tertiary Containment	Adequacy of Pollution prevention measure Yes/No	Are the proposed testing and inspection of pollution prevention measures adequate yes / no?	Circumstances under which emission occur (accidents; routine operations; planned emission)	Is there an adequate documented management system to demonstrate operator management and competence?	likelihood of contamination
manufacture	CWE - fragrances	medium to high	delivery	one	delivery and spill procedures, spill kits	n/a	drums from 25 to 900kg; IBCs	Visual inspection during delivery, storage and onward usage of container, live stock control updated daily	n/a	n/a	none	n/a	Yes	Yes	accidental release from damaged IBC and damaged site and public storm water drain at the same time	Yes	unlikely
			Storage	none	just in time delivery - minimal stock on site for 48h production, building provides secondary containment as no internal drains, spill kits throughout manufacturing area	1500l			located internally, building provides secondary containment - no internal drains	part of building maintenance	factory building, no internal drains	part of building maintenance	Yes	Yes	none - no internal drains, small individual volumes	Yes	unlikely
			use	none		1500 l							Yes	Yes		Yes	unlikely
	CWM - Polymers	medium potential	Delivery	none	delivery and spill procedures, spill kits	n/a	n/a	Visual inspection during delivery, storage and onward usage of container, live stock control updated daily	n/a	n/a	none	n/a	Yes	Yes	accidental release from damaged IBC and damaged site and public storm water drain at the same time	Yes	unlikely
			storage	none	just in time delivery - minimal stock on site for 48h production, building provides secondary containment as no internal drains, spill kits throughout manufacturing area	4000 kg	IBC and 1 to 25kg bags		located internally, building provides secondary containment - no internal drains	part of building maintenance	factory building, no internal drains	part of building maintenance	Yes	Yes	none - no internal drains, small individual volumes and most are solid materials	Yes	unlikely
			use	none		4000 kg							Yes	Yes		Yes	unlikely
	CWT - Dyes	medium potential	delivery	none	delivery and spill procedures, spill kits	n/a	n/a	Visual inspection during delivery, storage and onward usage of container, live stock control updated daily	n/a	n/a	none	n/a	yes	yes	accidental release from damaged bags and flushed away by rainwater as well as damaged site and public storm water drain	Yes	unlikely
			Storage	none	just in time delivery - minimal stock on site for 48h production, building provides secondary containment as no internal drains, spill kits throughout manufacturing area	500kg	1 to 25 kg bags		located internally, building provides secondary containment - no internal drains	part of building maintenance	factory building, no internal drains	part of building maintenance	Yes	Yes	none - no internal drains, small individual volumes and all are solid materials	Yes	unlikely
			use	none		500 kg							Yes	Yes		Yes	unlikely

Site Operation	hazardous substance with pollution potential	Potential for Pollution from relevant activity	Relevant Activity	Records of notified, relevant recorded accidental releases with potential for ground/ groundwater contamination*	Existence of pollution prevention measures	max volumes held on site at any one time	Nature of Primary Containment	Testing and Inspection of Primary Containment	Nature of Secondary Containment	Testing and Inspection of Secondary Containment	Nature of Tertiary Containment	Testing and Inspection of Tertiary Containment	Adequacy of Pollution prevention measure Yes/No	Are the proposed testing and inspection of pollution prevention measures adequate yes / no?	Circumstances under which emission occur (accidents; routine operations; planned emission)	Is there an adequate documented management system to demonstrate operator management and competence?	likelihood of contamination
Ancillary Activities	CWW – Agents – brighteners etc	low (6 substances) to medium/ high potential (3 substances)	delivery	one	delivery and spill procedures, spill kits	n/a	n/a	Visual inspection during delivery, storage and onward usage of container, live stock control updated daily	n/a	n/a	none	n/a	Yes	Yes	accidental release from damaged IBC and damaged site and public storm water drain at the same time	Yes	unlikely
			storage	none	just in time delivery minimal stock on site for 48h production, building provides secondary containment as no internal drains, spill kits throughout manufacturing area	4000 kg	IBC, 25-200 kg drum, 25kg bag		located internally, building provides secondary containment - no internal drains	part of building maintenance	factory building, no internal drains	part of building maintenance	Yes	Yes	none - no internal drains, small individual volumes and some are solid materials	Yes	unlikely
			use	none		4000 kg							Yes	Yes		Yes	unlikely
	CWX - Additives	low (10 substances) to medium (1 substance) potential	delivery	none	delivery and spill procedures, spill kits	n/a	n/a	Visual inspection during delivery, storage and onward usage of container, live stock control updated daily	n/a	n/a	none	n/a	Yes	Yes	accidental release from damaged IBC and damaged site and public storm water drain at the same time	Yes	unlikely
			storage	none	just in time delivery minimal stock on site for 48h production, building provides secondary containment as no internal drains, spill kits throughout manufacturing area	3000 kg	IBC, drums up to 300kg, 25 kg bags		located internally, building provides secondary containment - no internal drains	part of building maintenance	factory building, no internal drains	part of building maintenance	Yes	Yes	none - no internal drains, small individual volumes and some are solid materials	Yes	unlikely
			use	none		3000 kg	n/a						Yes	Yes		Yes	unlikely
	Maintenance consumables Only solvent cleaner and WD40 considered here – everything else is of insignificant volume	low to medium potential	delivery	none	Spill procedure and spill kits	n/a	various containers from <0.1 l to 5l	visual integrity check on receipt	COSHH cabinet or factory building - no internal drainage	part of building maintenance	factory building - no internal drainage	part of building maintenance	Yes	Yes	none - volumes involved are insignificantly small so that spillage would not reach underlying soil or groundwater	Yes	unlikely
			storage	none	enclosed COSHH cabinet, can hold any spillage	10 l		visual inspection as part of daily operational checks					Yes	Yes		Yes	unlikely
			use	none	spill procedure and spill kits								Yes	Yes		Yes	unlikely
	DI chemicals HCL and NaOH	medium potential	delivery and storage	none	delivery and spill procedure, spill kits and secondary containment in building	n/a	n/a	visual integrity check on receipt	located internally, building provides secondary containment - no internal drains	part of building maintenance	located internally, building provides secondary containment - no internal drains	part of building maintenance	Yes	Yes	none - no storage in Unit 29 straight into unit 21, no internal drains, small individual volumes	Yes	unlikely
			use	none	secondary containment and spill procedure and spill kits	2000 l	IBC	visual inspection as part of daily operational checks					Yes	Yes		Yes	unlikely

* digilean' records interrogated and 3 external incidents occurred in 2022 and 2023 - no specifics known regarding what chemical involved - hence allocated to highest volume consumed and highest potential to cause pollution