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Report No 23028/1A

October 2023

ENVIRONMENTAL RISK ASSESSMENT
for
ALLSTONE AGGREGATE RECYCLING FACILITY
MYERS RD
GLOUCESTER

Prepared for

ALLSTONE SANDS GRAVELS AGGREGATES TRADING CO LTD
Myers Rd
Gloucester
GL1 3QD

TABLE OF CONTENTS

LIST OF TABLES

LIST OF APPENDICES

LIST OF DRAWINGS

1. INTRODUCTION

1.1 Report Context

1.1.1 The Arley Consulting Company Limited (TACCL) has been commissioned by Allstone Sands Gravels Aggregates Trading Co Ltd ('Allstone') to prepare an environmental permit variation application for the Aggregate Recycling Facility operated under permit EPR/AB3709HV. This Environmental Risk Assessment forms part of that application.

1.1.2 The site is an existing facility located in close to the centre of Gloucester. The facility currently operates in accordance with Standard Rules 2010 No 12 (SR2010 No12). Operations include crushing and washing of construction, demolition and excavation waste to produce soil, soil substitutes and aggregate products. The permit was issued in 2013.

1.1.3 Washing has been carried out on site under the Standard Rules permit. Environment Agency officers have informed the operator that a bespoke permit will be required to continue the operation. The operator wishes to make the following changes:

- Move to a bespoke permit to specifically allow washing
- Add EWC 17 09 04 mixed construction and demolition waste

1.1.4 This report has been prepared following guidance available on the gov.uk website, particularly:

- Risk Assessment for your Environmental Permit
- Non-hazardous and inert waste: Appropriate measures for permitted facilities
- Control & Monitor Emissions for your Environmental Permit

1.2 Site Details and Surrounding Area

1.2.1 The site is centred on National Grid Reference SO 84512 18211. It is located approximately 1 km west of Gloucester city centre. The location is shown on Drawing No 23028/01, which is contained in Appendix F.

1.2.2 The site is situated in a mixed industrial, commercial and residential area. Surrounding land uses include the following:

- Residential area of Wotton to the north and Armscroft Park (Gloucester Old Boys rugby pitch) to the north-east
- Breedon Ready Mix Concrete and the Allstone Waste Transfer Station to the east
- Gloucester to Cheltenham railway line to the south and beyond the Triangle Park commercial/retail area
- Gloucester Irish Club to the west and beyond railway sidings.

1.3 Layout

1.3.1 The layout is shown on Drawing No 23028/02 in Appendix F.

1.3.2 Access to the site is from Myers Road via a concrete access road. Close to the entrance is a weighbridge and a site office.

1.3.3 The site is securely fenced and there are lockable gates at the site entrance, which are locked outside operational hours. The north and western perimeter of the site is screened by small trees and shrubs.

1.3.4 The topography is relatively flat. The site is surfaced with compacted hardstanding, with concreted areas beneath and around the wash plant.

2. IDENTIFICATION OF RISKS

2.1 Current Activities

2.1.1 Treatment consists of manual sorting and separation, crushing, washing, screening and blending. Products are manufactured according to a Quality Protocol and tested in accordance with end of waste requirements as per the WRAP quality protocol[1]. Treatment processes and products are detailed in the Quality Protocol and are summarised below.

2.1.2 The facility operates two separate processes; dry screening and washing. The waste used for each process and the products produced are summarised in Table 1 below.

Process	Waste In	Products Out
Dry Screening	Concrete	6F5 Type 1
	Hardcore	
	Bituminous Road Planings	
Washing	Granular excavation waste	Graded aggregates: 75/40 mm 40/20 mm 10/20 mm 0-4 mm sharp sand 0-2 mm sand

Table 1: Summary of Recycling Processes

2.1.3 A simplified flow diagram for the wash plant is presented at Figure 1. Waste soil/stone is fed through a feed hopper into a primary wash box which removes silt and sand, from which sand is recovered through a cyclone. The washed stone mix drops into a secondary wash box (the log wash). The stone mix is dewatered as it leaves the log wash and fed into a screening deck for grading into the various size products. All water is returned to the settlement tank where it is dosed with flocculants. Sludge settles to the bottom of the tank and is drawn off into a sludge tank which feeds a filter press. Filtercake is deposited in a storage bay constructed with a concrete base and water is returned from the press to the settlement tank.

2.1.4 Clarified water from the settlement tank brims over the top and is directed to a water feed tank, from where it is fed back into the wash box. Water is lost in the filtercake, and the plant is topped up with mains water to supplement the recycled water.

[1] Wrap Quality Protocol: End of Waste Criteria from the production of Aggregates from Inert waste. October 2013

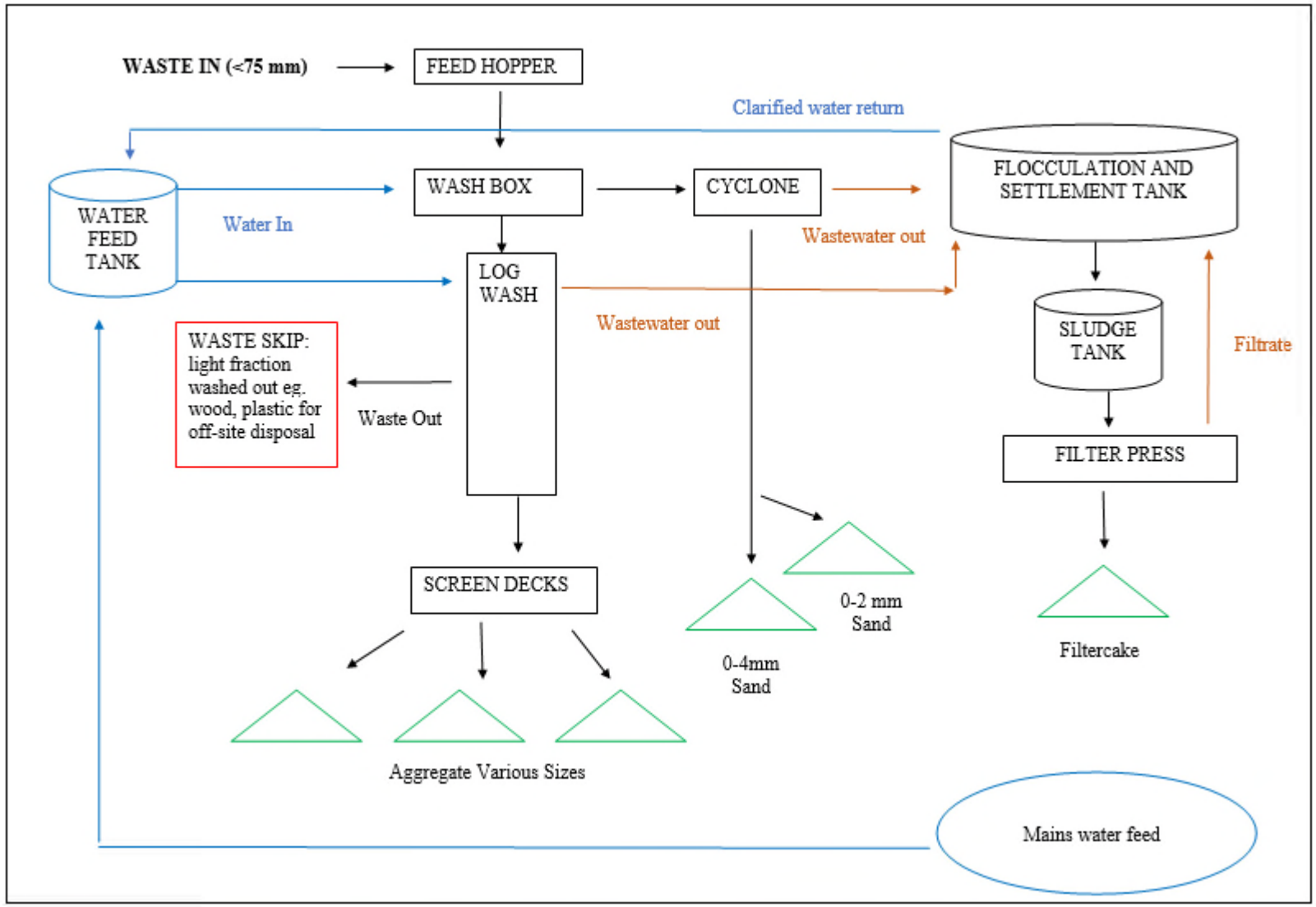


Figure 1: Wash Plant Process Flow Diagram

2.1.5 Waste products include solids recovered from the washing process which are mainly small pieces of wood and plastic. This is stored in a skip and sent off-site to the adjacent transfer station.

2.1.6 Filtercake is also dispatched from site as a waste.

2.1.7 Chemical additives are added to the flocculation tank to improve flocculation of the silt for better filtration. Chemicals used are non-hazardous. The safety data sheets for these products are contained in Appendix A.

2.1.8 Incoming waste and final products are stored on hardstanding within the processing area as shown on the Site Layout Plan, Drawing No 23028/02. contained in Appendix F.

2.2 Proposed Changes

2.2.1 The operator proposes to retain all of the waste codes from the existing standard rules permit and to add *EWC 17 09 04 mixed construction and demolition waste, limited to that generated from utilities trenching, consisting of sub base aggregates, and containing only material that would be described as 17 01 01, 17 03 02 and 17 05 04*. This material is permitted for aggregate production under the WRAP protocol.

2.2.2 This waste code will not present any additional risks as its constituent parts are already permitted for acceptance. Treatment of this waste code will be as per current waste codes: either by crushing to produce 6F2 or washing and screening to produce sand and stone products.

2.2.3 Waste acceptance procedures currently in place for the site will be applied to the proposed waste code, the overriding principle of which is that only uncontaminated material will be accepted for processing.

2.2.4 Although washing has been carried out on site under the current permit for a number of years, it is considered a change for the purpose of risk assessment.

2.2.5 There is no proposed change to the quantity of waste for storage or to the annual throughput.

2.3 Identification of Receptors

2.3.1 The location of the site in relation to potential receptors is shown on Drawing No 23028/03, which is provided in Appendix F. This illustrates the position of identified receptors within 500 m of the site. These are also listed in Table 2 below.

Ref	Receptor	Direction from Site	Approximate Distance from Site (m)
Domestic Dwellings			
1	19 Horton Road, Wotton	N	Adjacent
	Residences on Normal Ball Way, Wotton	N	30
	Residences in Wotton Suburb	N	30 - 500
	Residences in Barton Suburb	S	120 - 500
Industrial/Commercial Premises			
2	Cheltenham Surfacing Co Ltd	N	13
	Gloucester Irish Club	N	13
	Breedon Gloucester Concrete	NE	70
	Speedy Transfer Station	NE	55
	Triangle Park Commercial Area	S	40
	Morrisons Supermarket	SE	120
	Football Club	N	110
	Southbrook Industrial Area	SE	275
	Eastville Close Industrial Area	SE	340
	Asda Supermarket	W	420
	Network Rail	S & W	45 - 500
Public Rights of Way/Recreational Areas			
3	Surrounding Footpaths	N, S, SW	140 - 500
	Armscroft Play Area & Park	N	140
	Ayland Gardens Playground	S	380
Highway/Major Road or Transport Link			
4	Network Rail Lines	S	Adjacent - 500
	A4302	S	80
	A38	S	450
Hospitals/Care Facilities/Schools			
5	Great Western Care Home	W	265
	Widden Primary School	N	330
	Gloucestershire Royal Hospital	NW	335
	Chapel House Care Home	NW	145
	St Peters School	N	350
	Wotton Lawn Hospital	N	420
Controlled Waters			
6	Wotton Brook	NE	220
	Twyver Brook	SW	270

Table 2: Location of Receptors

Residential Receptors

2.3.2 The closest residential property is on Horton Road, adjacent to the site boundary. The next closest are those situated on Norman Ball Way, approximately 30 m to the north. Beyond these is the suburb of Wotton.

Public Rights of Way/Recreation

2.3.3 The Gloucester Old Boys Rugby ground is immediately to the north-east of the site and Armscroft Park is approximately 140 m north of the site.

Highway or Minor Road

2.3.4 The site is accessed off Myers Road via Horton Road, which is a main route into Gloucester city centre.

Surface Water

2.3.5 The closest surface water course is Wotton Brook approximately 220 m to the north-east, with Twyver Brook approximately 270 m south-west.

2.3.6 The site sits within the Severn River Basin District – Severn Vale management catchment – Gloucester Trib operational catchment. It is spilt between two water body catchments: Wotton to the east and Twyver to the west. Both of these water bodies have the same general classifications of moderate ecological status, both with moderate biological quality and failing on chemical quality due to the presence of priority hazardous substances.

Groundwater

2.3.7 The underlying bedrock is designated by the EA as 'secondary undifferentiated'. The superficial strata is 'unproductive'. The site is not within a currently defined groundwater source protection zone.

Ecological Receptors

2.3.8 A conservation screening request was submitted to the EA's pre-application advice service. The screening report is contained in Appendix B. It identified one feature to be considered in the application, Wotton Brook, which is a migratory route for the European Eel. Possible effects of site activities on Wotton Brook are assessed in Section 3, Tables 5 and 6.

2.3.9 A search of the Defra MAGIC map application revealed that there are three local nature reserves within 2 km and the following habitats sites at a distance greater than 2 km but less than 10 km. These are listed in Table 3 below.

Site	Designation	Distance & Direction
Barnwood arboretum	LNR	1.2 km E
Saintbridge balancing pond	LNR	1.4 km S
Alney island	LNR	1.7 km W
Hucclecote Meadows	SSSI	3.2 km SE
Innsworth Meadow	SSSI	3.2 km N
Robin's Wood Hill Quarry	SSSI	3.5 km S
Cotswolds Area	AONB	4 km SE
Cotswold Commons and Beechwoods	SSSI and NNR	5.6 km SE
Badgeworth	SSSI	6.6 km NE
Wainlode Cliff	SSSI	7.6 km N
Range Farm Fields	SSSI and NNR	7.7 km S
Crickley Hill and Barrow Wake	SSSI	7.9 km S
Coombe Hill Canal	SSSI	8.3 km N
Knap House Quarry Birdlip	SSSI	8.4 km SE
Edge Common	SSSI	8.5 km S
Haresfield Beacon	SSSI	9.5 km SW
Leckhampton Hill and Charlton Kings Common	SSSI	9.8 km E
Walmore Common	SSSI and Ramsar	9.8 km SW
Bull Cross The Frith and Juniper Hill	SSSI	9.8 m S

Table 3: Ecological Sites
Notes:
LNR = Local Nature reserve
NNR = National Nature reserve
SSSI = Site of Special Scientific Interest
AONB = Area of Outstanding Natural Beauty

2.3.10 A habitats assessment is not required as there are no European sites within 2 km of the site.

2.4 Baseline Conditions

Wind Direction

2.4.1 Figure 1 shows a wind rose[2] for data collected at Bristol Airport at approximately 63 km to the south-west.

[2] Wind rose generated by Iowa Environmental Mesonet provided by Iowa State University (accessed at https://mesonet.agron.iastate.edu/sites/locate.php?network=GB__ASOS)

2.4.2 The wind rose shows that the prevailing wind direction is from the west with an average wind speed of 10.9 miles per hour, which is a gentle breeze on the Beaufort scale. The strongest winds typically come from the west-southwest and are recorded at speeds greater than 20 mph, ie strong breeze and above.

2.4.3 With reference to the data it is considered that wind direction will be variable but with a prevalence towards the east and north-east, ie in the direction of the transfer station and the residential properties.

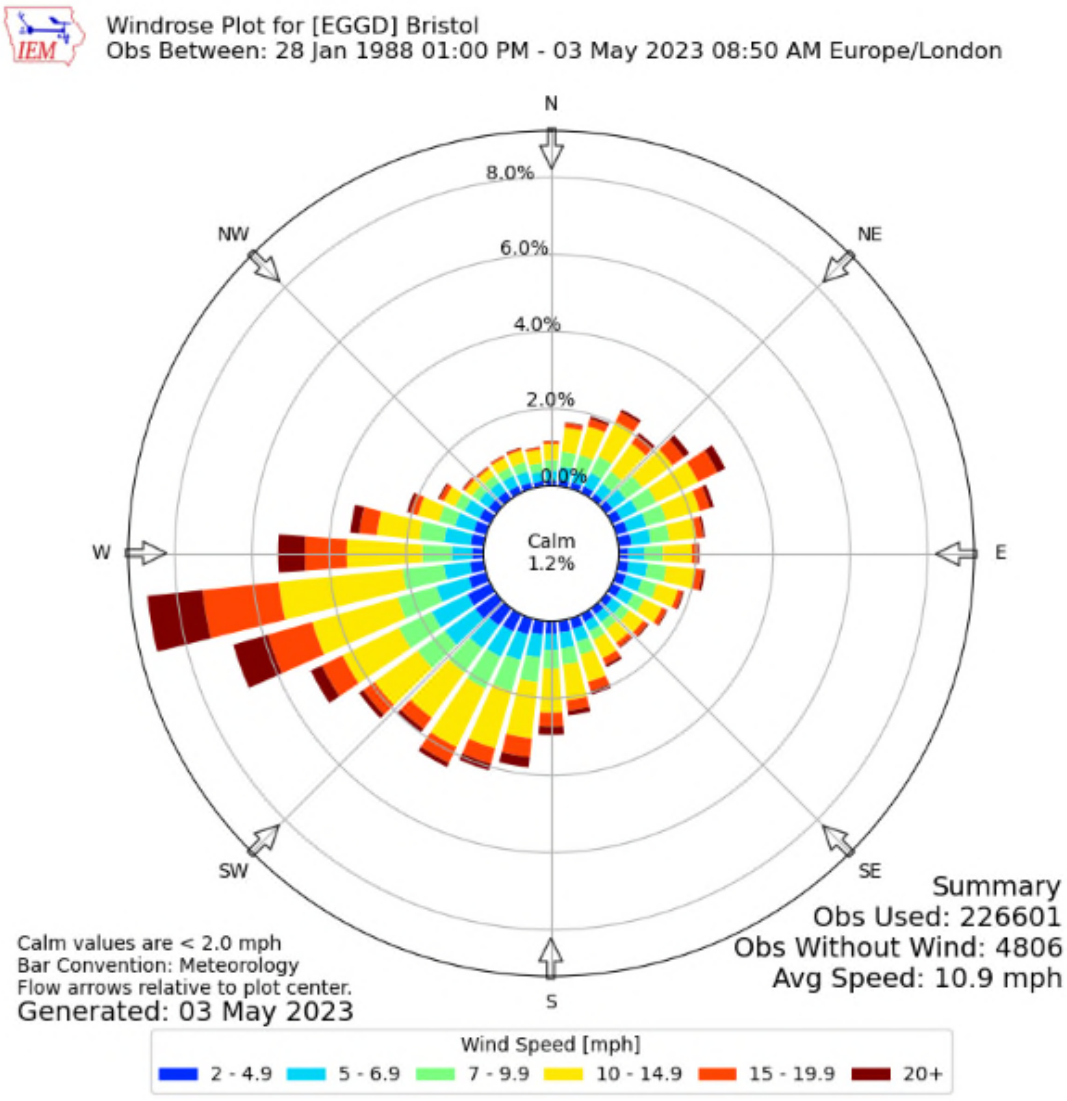


Figure 2: Wind Rose for Bristol

Rainfall

2.4.4 Reference has been made to Met Office data for Cheltenham, the nearest climate station to the site. Total average annual rainfall during the period 1991 to 2020 was 867 mm. The number of days of rainfall greater than or equal to 1 mm was 139 days on average each year. Met Office rainfall information is presented in Appendix C.

Air Quality

2.4.5 According to the DEFRA interactive map tool[3] the site is not located within an Air Quality Management Area (AQMA).

Potential for Flooding

2.4.6 According to the 'Flood map for planning' tool[4] on the gov.uk website, the site is situated in Flood Zone 1, an area with a low probability of flooding.

2.5 Identification of Hazards

2.5.1 Potential hazards from the proposed changes to activities have been identified as:

- Noise and Vibration – longer periods of operation of processing plant carrying out crushing, screening, washing to process additional throughput;
- Dust – generated in dry conditions from processing operations, stockpiles and site roads;
- Mud on the road – deposited on the public highway by outgoing vehicles;
- Uncontained run-off – surface water run-off which may contain suspended solids from stockpiled waste and site roads; spillage of washwater; leachate of contaminants from filtercake;
- Accidents

2.5.2 The nature of wastes accepted at the site will result in negligible generation of odour due to the lack of biodegradable and/or odorous material. As a result, odour is not considered further in this risk assessment.

2.5.3 Likewise, the wastes will not generate litter or attract birds, vermin or insects. Therefore, these potential hazards are not identified as present at this site and are not considered further in this risk assessment.

2.5.4 The operation is not considered to pose a risk to air (excepting fugitive dust) due to the nature of waste materials that are accepted; there are no additional emissions from site operations which would contribute global warming gases other than vehicle exhaust emissions.

2.5.5 Risks from dust and emissions are addressed in a Dust Management Plan[5].

[3] https://uk-air.defra.gov.uk/aqma/maps/
[4] https://flood-map-for-planning.service.gov.uk/

2.5.6 Risks from noise and vibration are considered in a Noise Impact Assessment[6] which also includes a noise management plan.

2.5.7 Risks from mud on the road, uncontained surface water and accidents are assessed in Section 3.

[5] ARUP Dust Management Plan June 2022
[6] 24 Acoustics Ltd April 2023

3. RISK ASSESSMENT AND REQUIRED MITIGATION

3.1 Methodology

3.1.1 Overall risk is a combination of the severity of an event and the likelihood that it will occur. Probability of occurrence is designated as:

- Probable – expected to occur based on previous occurrences
- Likely – expected to occur due to proposed changes
- Possible – this may occur, it may or may not have happened occasionally in the past
- Unlikely – not expected to occur
- Very Unlikely – has never and is not expected to occur.

3.1.2 The magnitude of risk is determined by the probability of exposure and the severity of the consequences, whereby:

- High – severe and long lasting environmental effects to the wider locality
- Medium – effects to the local environment and community
- Low - minor, short lived effects just beyond the site boundary
- Negligible – no discernible effect beyond the site boundary

3.1.3 An event could have a high probability of occurring but have minor environmental consequences; therefore it will be designated as a low risk. Likewise a risk with severe consequences could be unlikely to occur and will be designated as a low risk. A high risk designation would be assigned to an event that has severe consequences and is expected to occur.

3.1.4 The risks associated with the identified hazards have been assessed and are presented in Tables 4 to 6 including mitigation and control measures.

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Mud on the road	Public highway (Myers Road and Horton Road)	Material carried on vehicle wheels and axles on leaving the site.	Mud carried onto public highway which could be a skid hazard for motorists.	Possible	Medium	Concreted access road; A road sweeper will be employed if staining is extending along the concreted access road that could be carried off site	Low

Table 4: Assessment of Risks from Mud on the Road

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Surface water run-off carrying sediment from stockpiled waste and products	Wotton Brook	Overland flow out of facility and into watercourse	Increased sediment load reducing water quality, effecting quality of habitat for the European Eel which is a protected species	Very unlikely due to topography of site and distance to the Brook.	Low	The waste and products are uncontaminated and are stored on hardstanding. Surface water percolates into the underlying ground. There is no surface water pathway between the site and Wotton Brook.	Low
Surface water run-off carrying sediment from access road	Wotton Brook	Overland flow off access road and into watercourse		Unlikely as road drains to sewer	Low	Access road drains to sewer	Low
Spillage or leakage of wash plant water; leaching of contaminants from filtercake	Local groundwater (secondary undifferentiated' bedrock, superficial strata is 'unproductive')	Concentrated contaminants in recycled wash water or filtercake soak into underlying ground	Build up of contaminants in groundwater, deteriorating water quality	Possible - may be possibility of concentration effect in recycled wash water	Medium	Initial sampling and testing of recycled water and filtercake shows low levels of contaminants including toxic metals, petroleum hydrocarbons and PAH's. Proposed ongoing sampling and testing to establish if contaminants are becoming concentrated. Filtercake is stored on concreted surface.	Low
	Wotton Brook	Concentrated contaminants in recycled washwater carried into watercourse by overland flow	Deterioration of surface water quality, effecting quality of habitat for the European Eel which is a protected species	Unlikely as surface water contained within the site by topography	Low	The area beneath the plant is concreted and laid to a fall towards the centre so that drips and spillages drain towards a sump in the centre. Water is pumped from this sump back into the plant.	Low

Table 5: Assessment of Risk from Uncontained Run-off

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Overall Risk
Non-compliant waste types, eg hazardous dust from importation & processing of contaminated material	Closest residents	Air	Inhalation of contaminated dust by locals	Unlikely as hazardous material not included on permit but possible with unscrupulous actors	Medium	Permit conditions preclude acceptance of hazardous materials. Waste acceptance controls & pre-acceptance procedures will prevent acceptance of non-compliant waste types. In the event that non-conforming waste is unloaded the waste will be consigned to a quarantine area to await re-loading & removal off-site as shown on the site plan.	Low
	Surface water, groundwater	Uncontrolled Run-off	Contamination of controlled waters		Low	Wash plant and filtercake will be housed on an area of sealed drainage.	Low
Spillage or leakage of fuel, oils & coolants Minor (< 5 litres) Major (> 5 litres)	Underlying ground and groundwater; surface water	Oil or fuel seeps into ground and contaminates groundwater	Localised contamination of ground, possible percolation into groundwater over a long period.	Major spill Unlikely – fuel is stored in a bunded tank but minor spills when refuelling are possible	Medium	EMS includes leaks and spills procedure with good practice measures such as use of drip trays whilst refuelling and clean up of any spillages.	Low
Spillage of process water/sludge from wash plant	Wotton Brook	Overland flow of surface water or sludge carrying sediment from site.	Sediment laden water run-off causing sediment accumulation in watercourse and effects to the European Eel habitat	Unlikely due to topography	Low	Topography drains site towards west and brook is on the east so any spillages will drain away from the brook.	Very Low
	Underlying groundwater	Sediment-laden water/sludge soaks into underlying ground.	Sediment will remain on surface, uncontaminated water drains through	Possible but spillage of process water likely to be minor. Any impact would be low due to aquifer type and only limited groundwater would be exposed.	Low	The area beneath the plant is concreted and laid to a fall towards the centre so that drips and spillages drain towards a sump in the centre. Water is pumped from this sump into the plant.	Low

Table 6 (continued overleaf): Assessment of Risk from Accidents

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Overall Risk
Fire and firewater	Closest residents, Surface water	Overland flow of firewater; Increased airborne particulates from smoke	Contaminated firewater flows off site; Smoke causes nuisance and respiratory effects to local residents	Very unlikely: (i) the risk of fire is very low as the material processed is mainly non-combustible; (ii) Firewater would collect in the lagoon	Low	Permitted activities do not allow flammable materials to be accepted on site and burning of waste not allowed on site. All waste accepted will be non-combustible.	Very Low
Flooding		Site floods and waste is washed off-site, adding sediment to the water environment	Waste material may be washed out of the site	Unlikely: The site is in Flood Zone 1 (low probability)	Very Low	n/a	Very Low

Table 6 continued: Assessment of Risk from Accidents

4. MITIGATION AND CONTROL

4.0.1 Risks assessed as medium or high will require mitigation and control. Proposed measures, outlined in Tables 4 to 6 above, are presented in detail below.

4.1 Mud on Road

4.1.1 Risks associated with mud on road have been determined as medium. The access road is maintained by the use of road sweeper and is checked as part of the daily checklist. These control measures are included in the EMS.

4.2 Control of Run-off

4.2.1 The area footprint beneath the wash plant is concreted and laid to a fall with any run-off, drips and spillages drained to a sump in the centre. This water is pumped back into the plant and processed.

4.2.2 The remainder of the site is compacted hardstanding and is used to store incoming waste and processed material. This area is semi-permeable.

4.2.3 Testing of the recycled washwater and filtercake has been undertaken to establish whether contaminants are present.

4.2.4 Samples of filtercake were taken on 09/5/23 and on 15/05/23 and submitted to an accredited laboratory for testing. The results are contained in Appendix D and summarised in Table 7.

Parameter	Units	09/5/23	15/05/23
pH	-	8.9	8.9
Total Organic Carbon	%	2.75	2.14
BTEX	mg/kg	<0.6	<0.6
Total cyanide	mg/kg	<2	<2
Phenols	mg/kg	<2	<2
Arsenic	mg/kg	18.4	23.6
Beryllium	mg/kg	0.92	1.28
Cadmium	mg/kg	1.06	1.42
Chromium III	mg/kg	40.8	58.4
Copper	mg/kg	84.3	93.7
Mercury	mg/kg	0.8	0.18
Manganese	mg/kg	472	605
Molybdenum	mg/kg	1.61	1.78
Nickel	mg/kg	23.7	32.2
Lead	mg/kg	99.7	102

Antimony	mg/kg	<0.1	<0.1
Selenium	mg/kg	<6.0	<6.0
Zinc	mg/kg	234	279
Chromium VI	mg/kg	<0.2	<0.2
Asbestos	Visible fibres	NAD	NAD
TPH (C6-C40)	mg/kg	<50	<50
PAH total	mg/kg	40.9	26.3

Table 7: Contaminant Concentrations in Filtercake
Notes:
TPH = total petroleum hydrocarbons
PAH = polyaromatic hydrocarbons
NAD = No asbestos detected

4.2.5 Results of filtercake analysis show it is uncontaminated with very low concentrations of metals and organic compounds.

4.2.6 One sample of washwater was taken on 13/07/2023 from the press water return feed, at the point where it weirs over the edge of the settlement tank. The results are listed in Table 8 below. The laboratory certificates are contained in Appendix D.

Parameter	Units	13/07/2023
pH	-	6.8
Electrical conductivity	µs/cm	2830
Arsenic	mg/l	<0.007
Cadmium	mg/l	<0.0008
Chromium	mg/l	0.001
Copper	mg/l	0.011
Lead	mg/l	<0.004
Nickel	mg/l	0.0039
Tin	mg/l	<0.002
Zinc	mg/l	0.155
TPH	µg/l	<10
PAH total	µg/l	4.16

Table 8: Contaminant Concentrations in Washwater
Notes:
TPH = total petroleum hydrocarbons
PAH = polyaromatic hydrocarbons

4.2.7 Results for the washwater show lower concentrations of contaminants than in the filtercake. This indicates that contaminants are not building up in the washwater, however further monitoring will confirm this.

4.2.8 It is proposed to continue to sample the washwater and filtercake to build up a data set for further review. This will aim to:

- Characterise the washwater and filtercake
- Build up a picture of variation
- Establish if contaminants are becoming concentrated

4.2.9 A monitoring plan is included in Appendix E which outlines the proposed monitoring schedule. This will be reviewed and revised after 6 months as data has been obtained.

4.2.10 If contaminants are observed to be building up then an action plan will be proposed to reduce contaminants to an acceptable level.

4.3 Waste Acceptance

4.3.1 The primary method of prevention of contaminants in the washwater and filtercake is to control the waste inputs through waste acceptance criteria. Material is accepted to site with the purpose of producing recycled aggregate products in line with the end of waste WRAP quality protocol. The protocol stipulates that waste must have no chemical contamination.

4.3.2 The waste acceptance procedure includes assessment of waste enquiries at the pre-application stage by a technical assessor. Material which is considered contaminated is rejected.

4.3.3 When the material arrives on site it is checked by the weighbridge operator and again by the site foreman on tipping. It is visually inspected for conformity and any non-conforming material will be rejected.

4.3.4 The waste acceptance procedure is detailed in section 2 of the Quality Protocol.

4.4 Spillage

4.4.1 Effects of spillage are controlled as per the Spillage Procedure contained in Section 6 the EMS.

4.4.2 Spills are prevented by:

- Regular servicing & maintenance of vehicles
- Use of drip trays during servicing & maintenance of vehicles
- Storage of fuel/oil within bunded areas with capacity to hold 110% of the contained volume.

4.4.3 In the event of a spillage suitable action includes:

- Application of absorbent granules
- Formation of a temporary bund to prevent escape

5. CONCLUSIONS

5.1 The environmental risks of the proposed changes have been assessed and, where required, mitigation and control measures have been identified to reduce the risks to an acceptably low level.

5.2 The risk of mud to local roads will be limited by the long concreted access road maintained with a road sweeper.

5.3 Risks from surface water run-off will be minimised by siting the wash plant on an impermeable surface, which is laid to a fall to collect spills and drips in a sump. The washing plant is a fully contained, closed loop system and does not produce any effluent for discharge.

5.4 Risks from accepting contaminated material are controlled through the waste acceptance procedures to prevent the importation of contaminated waste.

5.5 Risks to prevent accidents are controlled through implementation of the EMS, including the leaks and spills procedure and the accident management plan.

5.6 In conclusion, it has been demonstrated that the risks posed by site activities will not have a significant impact on the surrounding environment.

C Gettinby
BSc (Hons) PhD MCIWM
Director

APPENDIX A

Safety Data Sheets for Flocculants

Material Safety Data Sheet

Section 1: Identification of Substance/mixture and of the company undertaking

1.1: Product Identifier

Product Name AQUATREAT 2085

1.2: Relevant Identified use of substance/mixture and uses advised against

1.3: Details of the Supplier of the safety data sheet

Company Name: Aquatreat
Albany House
North Dock
Llanelli
Carmarthenshire
SA15 2LF

Telephone: 01554 775236
Fax: 01554 772253
E-mail: enquiries@aquatreat.co.uk
Website: www.aquatreat.co.uk

1.4: Emergency Telephone Numbers:

Emergency Telephone: 0333 333 9499

Section 2: Hazards Identification

2.1: Classification of substance/mixture according to Regulation (EC) No 1272/2008

Classification under CLP: None Not Classified

Additional Information:

2.2: Label Elements: Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]

Label elements under CLP: None This product has no classification or label elements under CLP

Signal Words: None

Hazard Pictograms:

2.3: Other Hazards

Section 3: Composition information on hazardous ingredients

EINECS	CAS No	Classification according to Regulation (EC) 1272:2008	Percent

1,2-Ethanediamine, polymer with 2-(chloromethyl)oxirane and N-methylmethanamine

EINECS	CAS No	Classification according to Regulation (EC) 1272:2008	Percent
		H312; Asp. Tox 3	25-75%

Section 4: First Aid Measures

4.1: Description of First Aid measures

Skin Contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of presistent skin irrtitation, consult a physician.

Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine. Get prompt medical attention.

Ingestion: Rinse mouth with water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.

Inhalation: Move to fresh air. No hazards which require special first aid measures.

4.2: Most important symptoms and effects both accute and delayed

Skin Contact: No information available.

Eye Contact: No information available.

Ingestion: No information available.

Inhalation: No information available.

4.3: Indication of any immediate medical treatment and special treatment required

Treat symptomatically

Section 5: Fire fighting measures

5.1: Extinguishing media

Water. Water spray. Foam. Carbon dioxide (CO2). Dry powder.
Warning! Spills produce extrremely slippery surfaces.

Unsuitable Media

None known

5.2: Special hazards arising from the substance/mixture

Carbon oxides (COx). Nitrogen oxides (NOx). Hydrogen chloride. Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.
Water will make surfaces extremely slippery.

5.3: Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

Section 6: Accidental Release Measures

6.1: Personal precautions, protective equipment and emergency procedures

Do not touch or walk through spilled material. Spills produce extremely slippery surfaces.
Wear afequate personal protective equipment (see Section 8)

Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2: Environmental precautions

Do not contaminate water.
Should not be released into the environment. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3: Methods and Materials for containment and clean up

Small spills: Do not flush with water. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.
Large spills: Do not flush with water. Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.
After cleaning, flush away traces with water.

6.4: References to other sections

Section 7: Handling and storage; Section 8; Exposure controls/personal protection; Section 13: Disposal considerations

Section 7.0: Handling and Storage

7.1: Precautions for safe handling

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled.
When using, do not eat, drink, or smoke.

7.2: Conditions for safe storage.

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material.

7.4: Specific End Use(s)

Section 8: Exposurecontrols/PersonalProtection

8.1: Control Parameters

None known

8.2: Exposure Controls

Engineering Measures	Use local exhaust if misiting occurs. Natural ventilation is adequate in absence of mists.
Respiratory Protection	No personal respiratory protective equipment normally required.
Hand Protection	PVC or other plastic material gloves. Wash hands before breaks and immediately after handling the product. Wash hands before breaks and at the end of workday. Handle in accordance with good industrial hygiene and safety practice.
Eye Protection	Safety glasses with side-shields
Skin Protection	Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur.

Section 9.0: Physical and ChemicalProperties

9.1: Information on basic physical and chemical properties

State:	Liquid
Colour:	Colourless to amber
Odour:	Slight ammoniacal
Specific Gravity:	1.1-1.2

pH: 4-7

9.2: Other Information

Section 10: Stability and Reactivity

10.1: Reactivity

Stable under recommended storage conditions.

10.2: Chemical Stability

Stable under recommended storage conditions.

10.3: Possibility of Hazardous Reactions

None known.

10.4: Conditions to Avoid

Protect from frost, heat and sunlight.

10.5: Incompatible Materials

None.

10.6: Hazardous Decomposition Products

Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NOx), carbon oxides (COx). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

Section 11: Toxicological Information

1,2-Ethanediamine, polymer with 2-(chloromethyl)oxirane and N-methylmethanamine

Dermal	Rat	LD50	>2000mg/kg
Oral	Rat	LD50	>2000mg/kg

Aquatreat 2085

Dermal	Rat	LD50	>5000mg/kg
Oral	Rat	LD50	>5000mg.kg

Section 12: Ecological Information

12.1: Toxicity

LC50/96 h/Branchydanio rerio (zebra fish)/OECD Test Guideline 203: 10 - 100 mg/l. EC50/48 h/Daphnia magna (Water flea)/Immobilization/OECD Test Guideline 202: 10 - 100 mg/l

12.2: Persistence and Biodegradable

Not readily biodegradable.

12.3: Bioaccumulative Potential

The product is not expected to bioaccumulate.

12.4: Mobility in Soil

Exposure to soil is not to be expected.

12.5: Results of PBT and vPvB Assessment

Not PBT or vPvB according to the criteria of Annex XIII of REACH.

12.6: Other adverse effects

None

Section 13: Disposal Information

Dispose in accordance with local and national regulations.
Rinse empty containers with water and use the rinse-water to prepare the working solution. If recykling is not practicable, dispose of in compliance with local regulations.
Store containers and offer for recycling of material when in accordance with the local regulations.

Section 14: Transport Information

UN Number	
Shipping Name	Not classified as hazardous for transport
Transport Class	
Packing Group	
Environment Hazard	
Special Precautions	
Tunnel Code	
Transport Category	

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Section 15: Regulatory Information

15.1: Safety, Health and Environmental regulations/legislation specific for the substance/mixture

All components of this product have been registered or pre-registered with the European Chemicals Agency or are exempt from registration.

15.2: Chemical safety assessment

Section 16: Other information

The above information is based on our present knowledge of the product at the time of publication. It is given in good faith, no warranty is implied as to the quality or specification of the product. Information contained in this data does not constitute an assessment of workplace risks. The user must satisfy himself that the product is entirely suitable for their purpose

Material Safety Data Sheet

Section 1: Identification of Substance/mixture and of the company undertaking

1.1: Product Identifier

Product Name AQUATREAT 156

1.2: Relevant Identified use of substance/mixture and uses advised against

1.3: Details of the Supplier of the safety data sheet

Company Name: Aquatreat
Albany House
North Dock
Llanelli
Carmarthenshire
SA15 2LF

Telephone: 01554 775236
Fax: 01554 772253
E-mail: enquiries@aquatreat.co.uk
Website: www.aquatreat.co.uk

1.4: Emergency Telephone Numbers:

Emergency Telephone: 0333 333 9499

Section 2: Hazards Identification

2.1: Classification of substance/mixture according to Regulation (EC) No 1272/2008

Classification under CLP: None Not Classified as Hazardous

Additional Information:

2.2: Label Elements: Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]

Label elements under CLP: None This product has no classification or label elements under CLP

Signal Words:

Hazard Pictograms:

Precautionary Statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P102 Keep out of reach of children.

2.3: Other Hazards

Section 3: Composition information on hazardous ingredients

Does not contain any components classified as hazardous

EINECS	CAS No	Classification according to Regulation (EC) 1272:2008	Percent

Section 4: First Aid Measures

4.1: Description of First Aid measures

Skin Contact: Remove contaminated clothing. Wash contaminated area well with soap and water. If irritation persists obtain medical attention.

Eye Contact: Irrigate eye with water for 15 minutes. If irritation or redness persists seek medical attention.

Ingestion: Do not induce vomiting. Do not give anything by mouth to an unconscious person. If conscious rinse out mouth with water and give water to drink. Rest and reassure patient and obtain medical attention

Inhalation: Remove person to fresh air. If recovery is delayed seek medical attention.

4.2: Most important symptoms and effects both accute and delayed

Skin Contact: No data available

Eye Contact: No data available

Ingestion: No data available

Inhalation: No data available

4.3: Indication of any immediate medical treatment and special treatment required

Section 5: Fire fighting measures

5.1: Extinguishing media

Foam, dry powder, CO2

Unsuitable Media

None

5.2: Special hazards arising from the substance/mixture

Product does not burn readily, but flammable dust clouds may be formed in air.

5.3: Advice for firefighters

Chemical protection suit, gloves, goggles, self-contained breathing apparatus.

Section 6: Accidental Release Measures

6.1: Personal precautions, protective equipment and emergency procedures

For personal protection see section 8.

6.2: Environmental precautions

Should not be released into the environment.

6.3: Methods and Materials for containment and clean up

Do not flush into surface waters or sanitary sewer system. Sweep up and shovel into suitable containers for disposal. Residues and small spillages may be hosed away with

water. Spilled product which becomes wet may cause a slip hazard.

6.4: References to other sections

Section 7.0: Handling and Storage

7.1: Precautions for safe handling

Avoid dust formation during handling. For personal protection see section 8.

7.2: Conditions for safe storage.

To avoid product degradation and equipment corrosion, do not use iron, copper or aluminium containers or equipment. The product is hygroscopic. Protect from moisture.

7.4: Specific End Use(s)

Section 8: Exposurecontrols/PersonalProtection

8.1: Control Parameters

Contains no substances with occupational exposure limit values.

8 Hour TWA: **15MinSTEL:**

8.2: Exposure Controls

Engineering Measures	Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Ensure that eyewash stations and safety showers are close to the workstation location.
Respiratory Protection	In case of inadequate ventilation wear respiratory protection. (filter P2)
Hand Protection	Nitrile rubber gloves
Eye Protection	Safety glasses/gogles
Skin Protection	Normal work overalls

Section 9.0: Physical and ChemicalProperties

9.1: Information on basic physical and chemical properties

State:	Solid
Colour:	White
Odour:	Odourless
Specific Gravity:	
pH:	n/a

9.2: Other Information

Section 10: Stability and Reactivity

10.1: Reactivity

10.2: Chemical Stability

Stable at ambient temperature.

10.3: Possibility of Hazardous Reactions

None known

10.4: Conditions to Avoid

Wet, damp, and humid conditions

10.5: Incompatible Materials

Strong oxidizing agents

10.6: Hazardous Decomposition Products

ammonia, Carbon oxides (COx), Nitrogen oxides (NOx)

Section 11: Toxicological Information

AQUATREAT 156

ORAL	RAT	LD50	>2500 mg/kg

Section 12: Ecological Information

12.1: Toxicity

96 Hr LC50 (fish) expected to be > 100ppm by analogy to similar products

12.2: Persistence and Biodegradable

Ready biodegradability/OECD Test Guideline 301 D/28 d: < 10 %

12.3: Bioaccumulative Potential

Bioaccumulation is unlikely. Because of the high molecular weight of the polymer diffusion through biological membranes is very small.

12.4: Mobility in Soil

12.5: Results of PBT and vPvB Assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and
toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6: Other adverse effects

Section 13: Disposal Information

Recycling, recovery and reuse of materials is recommended if permitted by regulations.The organic ingredients can be incinerated in a suitable installation when in accordance with local regulations.Packages must be disposed of according to local and national regulations.

Section 14: Transport Information

UN Number	
Shipping Name	Not classified as dangerous for transport
Transport Class	
Packing Group	
Environment Hazard	
Special Precautions	
Tunnel Code	

Transport Category

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Section 15: Regulatory Information

15.1: Safety, Health and Environmental regulations/legislation specific for the substance/mixture

15.2: Chemical safety assessment

Section 16: Other information

The above information is based on our present knowledge of the product at the time of publication. It is given in good faith, no warranty is implied as to the quality or specification of the product. Information contained in this data does not constitute an assessment of workplace risks. The user must satisfy himself that the product is entirely suitable for their purpose

Material Safety Data Sheet

Section 1: Identification of Substance/mixture and of the company undertaking

1.1: Product Identifier

Product Name AQUATREAT TP10 ANTIFOAM

1.2: Relevant Identified use of substance/mixture and uses advised against

Foam control agent

1.3: Details of the Supplier of the safety data sheet

Company Name: Aquatreat
Albany House
North Dock
Llanelli
Carmarthenshire
SA15 2LF

Telephone: 01554 775236
Fax: 01554 772253
E-mail: enquiries@aquatreat.co.uk
Website: www.aquatreat.co.uk

1.4: Emergency Telephone Numbers:

Emergency Telephone: 0333 333 9499

Section 2: Hazards Identification

2.1: Classification of substance/mixture according to Regulation (EC) No 1272/2008

Classification under CLP: None Not classified as hazardous

Additional Information:

2.2: Label Elements: Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]

Label elements under CLP: None This product has no classification or label elements under CLP

Signal Words: None

Hazard Pictograms:

2.3: Other Hazards

Section 3: Composition information on hazardous ingredients

EINECS	CAS No	Classification according to Regulation (EC) 1272:2008	Percent

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. Consult a doctor.

Ingestion: Do not induce vomiting. Wash out mouth with water. If conscious, give half a litre of water to drink immediately. Consult a doctor.

Inhalation: Not applicable.

4.2: Most important symptoms and effects both accute and delayed

Skin Contact: There may be mild irritation at the site of contact.

Eye Contact: There may be irraitation and redness.

Ingestion: There may be irritation of the throat.

Inhalation: No symptoms

4.3: Indication of any immediate medical treatment and special treatment required

Eye bathing equipment should be available on the premises.

Section 5: Fire fighting measures

5.1: Extinguishing media

Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

Unsuitable Media

None

5.2: Special hazards arising from the substance/mixture

In combusion emits toxic fumes.

5.3: Advice for firefighters

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

Refer to section 8 of MSDS for personal protection details. Turn leaking contaners leak-side up to prevent the escape of liquid.

6.2: Environmental precautions

Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3: Methods and Materials for containment and clean up

Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4: References to other sections

Refer to section 8 of MSDS.

Section 7.0: Handling and Storage

7.1: Precautions for safe handling

Ensure there is sufficient ventilation of the area. Avoid direct contact with the substance.

7.2: Conditions for safe storage.

Store in a cool, well ventilated area. Keep container tightly closed.

7.4: Specific End Use(s)

No data available.

Section 8: Exposurecontrols/PersonalProtection

8.1: Control Parameters

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 (DIN EN 374)
Eye Protection	Safety glasses (DIN EN 166) Ensure eye bath is to hand.
Skin Protection	Protective clothing.

Section 9.0: Physical and ChemicalProperties

9.1: Information on basic physical and chemical properties

State:	Liquid
Colour:	Off-white
Odour:	Perceotible odour
Specific Gravity:	1.00
pH:	7

9.2: Other Information

No data available.

Section 10: Stability and Reactivity

10.1: Reactivity

Stable under recommended transport or storage conditions.

10.2: Chemical Stability

Stable under normal conditions.

10.3: Possibility of Hazardous Reactions

Hazardous reactions willl not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

10.4: Conditions to Avoid

Extremes of temperature.

10.5: Incompatible Materials

Strong oxiding agents. Strong acids.

10.6: Hazardous Decomposition Products

In combusion emits toxic fumes.

Section 11: Toxicological Information

No hazzard calculated.

Section 12: Ecological Information

12.1: Toxicity

No data available.

12.2: Persistence and Biodegradable

Biodegradable in part only.

12.3: Bioaccumulative Potential

No data available.

12.4: Mobility in Soil

Readily absorbed into soil.

12.5: Results of PBT and vPvB Assessment

This product is not identified as a PBT/vPvB substance.

12.6: Other adverse effects

No data avaiable.

Section 13: Disposal Information

Section 14: Transport Information

UN Number	-
Shipping Name	-
Transport Class	-
Packing Group	-
Environment Hazard	
Special Precautions	
Tunnel Code	
Transport Category	-

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Section 15: Regulatory Information

15.1: Safety, Health and Environmental regulations/legislation specific for the substance/mixture

Not applicable.

15.2: Chemical safety assessment

A chemical safety assessment has not been carried out for the substance or the mixutre by the supplier.

Section 16: Other information

The above information is based on our present knowledge of the product at the time of publication. It is given in good faith, no warranty is implied as to the quality or specification of the product. Information contained in this data does not constitute an assessment of workplace risks. The user must satisfy himself that the product is entirely suitable for their purpose

APPENDIX B

Conservation Screening Report

Nature and Heritage Conservation

Screening Report: Bespoke Waste

Reference	**EPR/AB3709HV/P001**
NGR	**SO 84512 18211**
Buffer (m)	**200**
Date report produced	**05/07/2023**
Number of maps enclosed	**1**

The nature and heritage conservation sites and/or protected species and habitats identified in the table below must be considered in your application.

Protected Species	Screening distance (m)	Further Information
European Eel migratory route	up to 500m	Natural England Appropriate Local Record Centre (LRC) National Biological Network (NBN)

Where protected species are present, a licence may be required from Natural England to handle the species or undertake the proposed works.

Please note we have screened this application for protected and priority sites, habitats and species for which we have information. It is however your responsibility to comply with all environmental and planning legislation, this information does not imply that no other checks or permissions will be required.

Please note the nature and heritage screening we have conducted as part of this report is subject to change as it is based on data we hold at the time it is generated. We cannot guarantee there will be no changes to our screening data between the date of this report and the submission of the permit application, which could result in the return of an application or requesting further information.

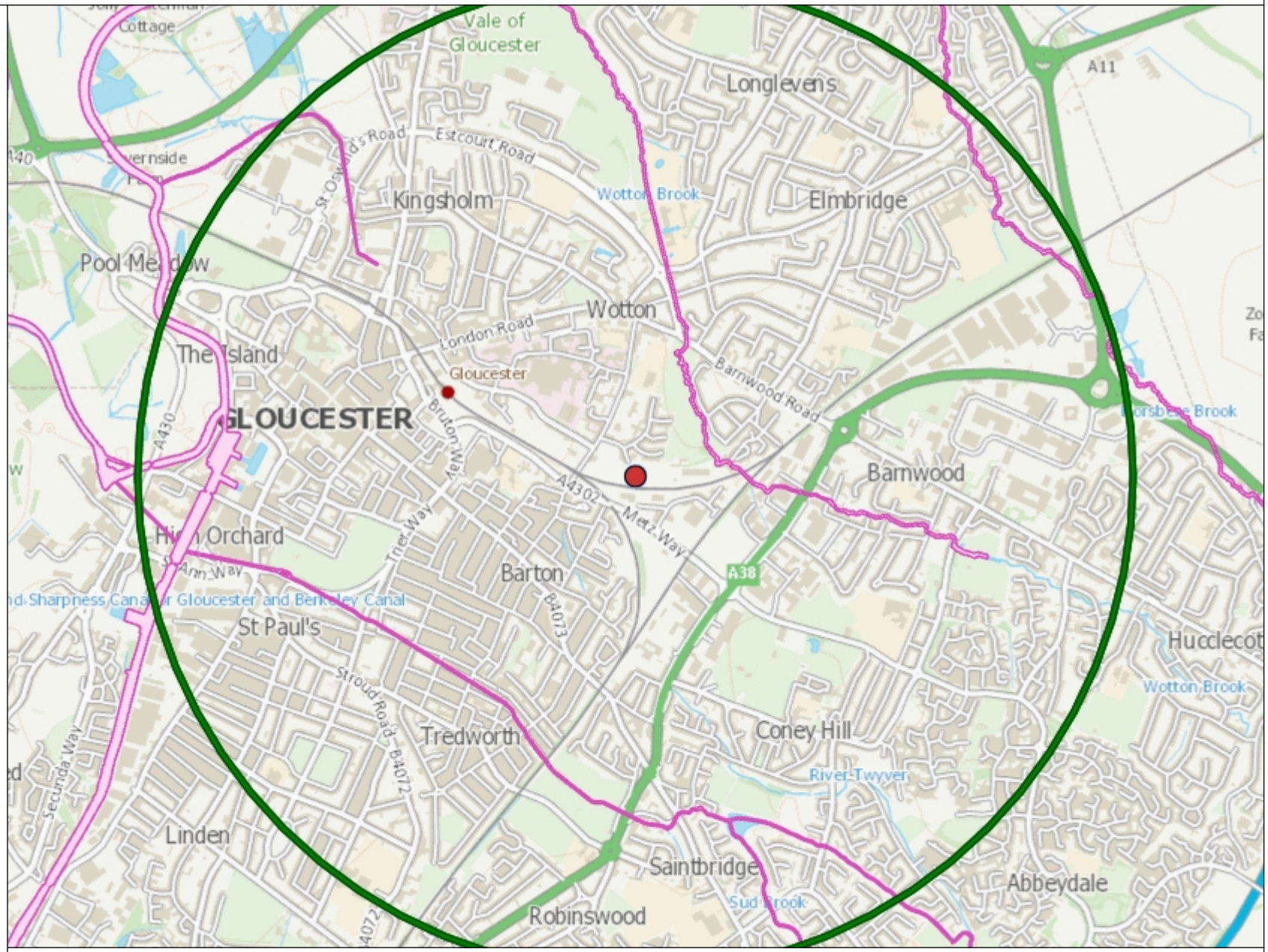
Protected Species

Environment Agency

Legend

Protected species screened for Env Permits - complete set

- Protected species, non fish
- Protected fish
- Protected fish migratory route



1: 25,000

0 625

Metres

N W E S

APPENDIX C

Rainfall Data

Met Office

Cheltenham (Gloucestershire) UK climate averages

UK climate averages
or, find a climate station on the map

Nearest climate station:

Cheltenham

Location: 51.8972, -2.0742
Altitude: 58 m above mean sea level
Station type: Residential

Station: Cheltenham

Climate period:

1991-2020

Month	Maximum temperature (°C)	Minimum temperature (°C)	Days of air frost (days)	Sunshine (hours)	Rainfall (mm)	Days of rainfall ≥1 mm (days)	Monthly mean wind speed at 10 m (knots)
January	7.96	2.28	8.49	56.92	77.98	12.76	–
February	8.58	2.25	7.69	79.95	65.77	11.01	–
March	11.26	3.63	3.97	116.13	51.32	10.71	–
April	14.56	5.13	1.80	158.61	69.15	11.35	–
May	18.09	8.17	0.07	195.02	65.48	10.96	–
June	20.81	11.03	0.03	189.37	71.30	10.47	–
July	23.16	13.35	0.00	200.62	70.74	10.65	–
August	22.22	13.17	0.00	181.18	72.25	11.18	–
September	19.54	10.48	0.00	141.39	69.15	10.18	–
October	15.10	7.86	0.90	106.47	80.46	12.59	–
November	10.95	4.86	3.98	64.30	88.76	13.72	–
December	8.49	2.38	8.57	52.82	84.84	13.42	–
Annual	15.09	7.08	35.50	1542.78	867.20	139.00	–

APPENDIX D

Laboratory Results

ACS TESTING LIMITED SUMMARY OF ANALYSIS for Job No.23-95798

Client : **Allstone**

Site : **Allstone Speedy Skips**

Certificate Address
Allstone
Allstone House
Myers Road
Gloucester
GL1 3QD

Contact David Ambrose
Contact Telephone No. :
Contact e-mail david@allstone.co.uk

Sample No.	Material Source	Clients Reference	Sample Location	Date Sampled	Sampled By	Date Received	Material Description	Clients Specification	Test Ref	Test Name
728782	Wash Water	Water Sample	Newlands Wash Plant	13/07/2023	Simon	18/07/2023	Recycled Aggregate Stones Soils - Washed	Water Sample	ALLSTONE_W	ALLSTONE_W

This summary relates to analysis sub-contracted to ACS Environmental Testing Limited (see attached certificates)

Issued by ACS Testing Limited09/08/2023

ACS Testing Ltd
Unit 14
Blackhill Road West
Holton Heath Trading Park
Poole
Dorset
BH16 6LE

Certificate of Analysis

Certificate Number : 23-01895-Issue 2-Page: 1

Report Fao:	ACS Testing Ltd
Site Address^:	Allstone Speedy Skips
Client Order No:	23-95798
Date of Sampling^:	13/07/2023
Date Received:	21/07/2023
Date of Analysis:	21/07/2023 - 04/08/2023
Report Date:	07/08/2023

Please find your certificates of test attached for your samples received in the laboratory on 21/07/2023 under our laboratory reference 23-01895.

This Test Certificate replaces and supersedes Test Certificate number : 23-01895-Issue 1

Remarks:

UKAS accreditation for Metals was removed due to analysis being carried out by ICP-MS at clients request.

Results reviewed by:

Craig Williams *Senior Analyst*

Test Certificates approved by:

Anthony Elkins
General Manager

Any opinions or interpretations indicated are outside the scope of our UKAS accreditation.
This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report are representative of the samples submitted for analysis.
Excel copies of reports are valid only when accompanied by this PDF certificate.
Client's Sample Description / ACS Material Description are noted for reference only.

Head Office
Unit 14B
Blackhill Road West
Holton Heath Trading Park
Poole
Dorset BH16 6LE

Tel 01202 628680
Fax 01202 628642

Registered Office
Unit 14B
Blackhill Road West
Holton Heath Trading Park
Poole
Dorset BH16 6LE
ACS Environmental Testing Limited
Registered in England and
Wales No. 6000065

UKAS TESTING
4150

ANALYTICAL CONSTRUCTION SERVICES
A PHENNA GROUP COMPANY

ACSE Sample Number	**75679**
Sample ID	**728782 - 23-95798**
Clients Sample Ref.^	**Water Sample**
Location / Sample Depth (m)^	**Newlands Wash Plant**
Date Sampled^	**13/07/2023**
Time Sampled^	
Sample deviating codes	**abef**
Client's Sample Description^	
ACS Testing Material Description^	**Recycled Aggregate Stones Soils - Washed**
ACSE Material Description (Principal Matrix - As Received)	**WATER**

Determination	HWOL Acroynm	Units	Method	Prepared As	Result	AS
Metals (Water)						
Arsenic		mg/l	MT/ACSE/205	AR	< 0.007	ab
Cadmium		mg/l	MT/ACSE/205	AR	< 0.0008	ab
Chromium		mg/l	MT/ACSE/205	AR	**0.001**	ab
Copper		mg/l	MT/ACSE/205	AR	**0.011**	ab
Nickel		mg/l	MT/ACSE/205	AR	**0.0039**	ab
Lead		mg/l	MT/ACSE/205	AR	< 0.004	ab
Tin		mg/l	MT/ACSE/205	AR	< 0.002	
Zinc		mg/l	MT/ACSE/205	AR	**0.155**	ab
Petroleum Hydrocarbons LL						
Total TPH LL		ug/L	NAM/ACSE/X02	AR	< 10.0	
pH and Conductivity						
Conductivity (@ 20℃)		uS/cm	MT/ACSE/303		**2830**	*aef
pH (@ 20℃)		units	MT/ACSE/301	AR	**6.8**	*aef
Subcontracted Analysis						
Speciated PAH (Low Level)		SC	SC	SC	**Attached**	

Head Office
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Dorset BH16 6LE

Tel 01202 628680
Fax 01202 628680

Registered Office
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Holton Heath Trading Park
Poole
Dorset BH16 6LE
ACS Environmental Testing Limited
Registered in England and
Wales No. 6000065

Technical Information for Analytical Results

Analysis

* - denotes analysis covered by our UKAS accreditation.
# - denoted analysis covered by our MCERTS certification & UKAS accreditation.
Loss on Ignition (MT/ACSE/302) is carried out at our laboratory at Unit D11 Admiralty Park, Station Road, Holton Heath, Poole, Dorset BH16 6HX.
AD = Sample tested in air dried condition.
AR = Sample tested in as-received condition.
AS = Accreditation status.
D = Sample tested in dry condition.
L = Laboratory prepared leachate.
SC = Sub contracted.
^ = Clients supplied information.
All MCERTS certified test values reported on a dry weight basis.
The preparation of 10:1 Leachates (to BS EN 12457-2:2002) and 2:1 leachates (to BS EN 12457-1:2002) fall outside the scope of our UKAS accreditation.
Soils and leachates are prepared at our laboratory at Unit D11 Admiralty Park, Station Road, Holton Heath, Poole, Dorset BH16 6HX.
Method uncertainty available on request.
Where results are less than the limit of detection, the value of 0 is used in calculations.

Key to HWOL Acronyms

Acronym		Description
HS	-	Headspace analysis
EH	-	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	-	Clean-up - e.g. by florisil, silica gel
1D	-	GC - Single coil gas chromatography
Total	-	Aliphatics & Aromatics
AL	-	Aliphatics only
AR	-	Aromatics only
2D	-	GC-GC - Double coil gas chromatography
#1	-	e.g. EH_2D_Total_#1 means humics mathematically subtracted
#2	-	e.g. EH_2D_Total_#2 means fatty acids mathematically subtracted
_	-	Operator - underscore to separate acronyms (exception for +)
+	-	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Deviating Codes

Deviating Samples

The use of any of the following symbols indicates that the sample was deviating and it is possible therefore that the results provided may not be representative of the sample taken.

a – The date and /or time of sampling has not been provided, therefore it is not known if the time lapse between sampling and analysis has exceeded the acceptable holding time(s)*.
b – The test item was received in a container which has not been recommended*.
c – On receipt, the temperature of the sample received was found to fall outside the recommendations of BS ISO 18512:2007, Soil Quality. Guidance on long and short term storage of soil samples*.
d – The sample was received in a container that had not been filled as recommended*.
e – The delay between sampling and sample receipt is greater than the recommended holding time for the analyte of interest in this matrix*.
f – The delay between sampling and analysis is greater than the recommended holding time for the analyte of interest in this matrix*.

In accordance with the requirements of Technical Policy Statement TPS 63; UKAS Policy on Deviating Samples, all UKAS accredited testing laboratories are required to notify their clients that calibration or test results may be invalid where samples are found to be deviating. It is the opinion of ACSE that the term invalid should be interpreted as 'not fully representative of the sample taken at source'.

The following Additional Deviating Sample Codes may also be used.

I/S – Insufficient sample mass/volume received for accurate quantification of this analyte.
U/S – The sample received was deemed unsuitable for accurate determination of this analyte using the Test Methods available.
S/C - The sample received was subcontracted for analysis.

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TN38 9BY
Telephone: (01424) 718618

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info@elab-uk.co.uk

THE ENVIRONMENTAL LABORATORY LTD

Analytical Report Number:	23-49213
Issue:	1
Date of Issue:	28/07/2023
Contact:	Dave Redfern
Customer Details:	ACS Environmental testing Ltd Unit 14b Blackhill Road West Holton heath Trading park Poole DorsetBH16 6LE
Quotation No:	Q22-03485
Order No:	E / 23-01895 / 6179
Customer Reference:	23-01895
Date Received:	25/07/2023
Date Approved:	28/07/2023
Details:	23-01895
Approved by:	

Tim Reeve, Quality Officer

Sample Summary

Report No.: 23-49213, issue number 1

Elab No.	Client's Ref.	Date Sampled	Date Scheduled	Description	Deviations
332146	Water Sample 75679	13/07/2023	25/07/2023		cf

Results Summary

Report No.: 23-49213, issue number 1

ELAB Reference	332146
Customer Reference	75679
Sample ID	
Sample Type	WATER
Sample Location	Water Sample
Sample Depth (m)	
Sampling Date	13/07/2023

Determinand	Codes	Units	LOD	
Polyaromatic hydrocarbons				
Naphthalene GCMS	N	ug/l	0.01	cf 0.03
Acenaphthylene GCMS	N	ug/l	0.01	cf 0.02
Acenaphthene GCMS	N	ug/l	0.01	cf 0.21
Fluorene GCMS	N	ug/l	0.01	cf 0.36
Phenanthrene GCMS	N	ug/l	0.01	cf 1.57
Anthracene GCMS	N	ug/l	0.01	cf 0.16
Fluoranthene GCMS	N	ug/l	0.01	cf 0.69
Pyrene GCMS	N	ug/l	0.01	cf 0.42
Benzo (a) anthracene GCMS	N	ug/l	0.01	cf 0.16
Chrysene GCMS	N	ug/l	0.01	cf 0.13
Benzo (b) fluoranthene GCMS	N	ug/l	0.01	cf 0.07
Benzo (k) fluoranthene GCMS	N	ug/l	0.01	cf 0.07
Benzo (a) pyrene GCMS	N	ug/l	0.01	cf 0.09
Indeno (1,2,3-cd) pyrene GCMS	N	ug/l	0.01	cf 0.06
Dibenzo(a,h)anthracene GCMS	N	ug/l	0.01	cf 0.08
Benzo(ghi)perylene GCMS	N	ug/l	0.01	cf 0.07
Total PAH(16) GCMS	N	ug/l	0.01	cf 4.16

Method Summary

Report No.: 23-49213, issue number 1

Parameter	Codes	Analysis Undertaken On	Date Tested	Method Number	Technique
Water					
PAHs and/or PCBs in waters	N		26/07/2023	135	GC-MS

Tests marked N are not UKAS accredited

Report Information

Report No.: 23-49213, issue number 1

Key

U	hold UKAS accreditation
M	hold MCERTS and UKAS accreditation
N	do not currently hold UKAS accreditation
^	MCERTS accreditation not applicable for sample matrix
*	UKAS accreditation not applicable for sample matrix
S	Subcontracted to approved laboratory UKAS Accredited for the test
SM	Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test
NS	Subcontracted to approved laboratory. UKAS accreditation is not applicable.
I/S	Insufficient Sample
U/S	Unsuitable sample
n/t	Not tested
<	means "less than"
>	means "greater than"
LOD	LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination.

Soil sample results are expressed on an air dried basis (dried at < 30°C), and are uncorrected for inert material removed.

ELAB are unable to provide an interpretation or opinion on the content of this report.

The results relate only to the sample received.

PCB congener results may include any coeluting PCBs

Uncertainty of measurement for the determinands tested are available upon request

Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.

Deviation Codes

a	No date of sampling supplied
b	No time of sampling supplied (Waters Only)
c	Sample not received in appropriate containers
d	Sample not received in cooled condition
e	The container has been incorrectly filled
f	Sample age exceeds stability time (sampling to receipt)
g	Sample age exceeds stability time (sampling to analysis)

Where a sample has a deviation code, the applicable test result may be invalid.

Sample Retention and Disposal

All soil samples will be retained for a period of one month

All water samples will be retained for 7 days following the date of the test report

Charges may apply to extended sample storage

TPH Classification - HWOL Acronym System

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

ACS Testing Ltd
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Blackhill Road West
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BH16 6LE

Certificate of Analysis

Certificate Number : 23-01160-Issue 1-Page: 1

Report Fao:	ACS Testing Ltd
Site Address^:	Allstone Speedy Skips
Client Order No:	23-93801
Date of Sampling^:	09/05/2023
Date Received:	16/05/2023
Date of Analysis:	16/05/2023 - 30/05/2023
Report Date:	31/05/2023

Please find your certificates of test attached for your samples received in the laboratory on 16/05/2023 under our laboratory reference 23-01160.

Remarks:

None

Results reviewed by:

Arron O'Hara - Senior Analyst

Test Certificates approved by:

Eoin Byrne Laboratory Manager

Any opinions or interpretations indicated are outside the scope of our UKAS accreditation.
This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report are representative of the samples submitted for analysis.
Excel copies of reports are valid only when accompanied by this PDF certificate.
Client's Sample Description / ACS Material Description are noted for reference only.

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ACS Environmental Testing Limited
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Wales No. 6000065

4150

ACSE Sample Number	**73191**	**73192**
Sample ID	**716201 - 23-93801**	**716202 - 23-93801**
Clients Sample Ref.^	**Organics Sample**	**Filter Cake Sample**
Location / Sample Depth (m)^	**Wash Plant**	**Wash Plant**
Date Sampled^	**09/05/2023**	**09/05/2023**
Time Sampled^		
Sample deviating codes	**ef**	**ef**
Client's Sample Description^		
ACS Testing Material Description^	**Organics**	**Filter Cake**
ACSE Material Description (Principal Matrix - As Received)	**ORGANICS**	**CLAY**

Determination	HWOL Acroynm	Units	Method	Prepared As	Result	AS	Result	AS
Anions								
Water Soluble Sulphate		mg/l	MT/ACSE/204	AD	**1800**	*	**1510**	*
BTEX								
Benzene	HS_1D_TOTAL	mg/kg	MT/ACSE/101	AR	< 0.10	*ef	< 0.10	*ef
Ethylbenzene	HS_1D_TOTAL	mg/kg	MT/ACSE/101	AR	< 0.10	*ef	< 0.10	*ef
m+p-xylene	HS_1D_TOTAL	mg/kg	MT/ACSE/101	AR	< 0.19	*ef	< 0.19	*ef
o-xylene	HS_1D_TOTAL	mg/kg	MT/ACSE/101	AR	< 0.10	*ef	< 0.10	*ef
Toluene	HS_1D_TOTAL	mg/kg	MT/ACSE/101	AR	< 0.10	*ef	< 0.10	*ef
Total BTEX	HS_1D_TOTAL	mg/kg	MT/ACSE/101	AR	< 0.60	*ef	< 0.60	*ef
Carbon								
TOC (Total Organic Carbon)		%	MT/ACSE/102	AR	**1.49**	*	**2.75**	*
Cyanide								
Total Cyanide		mg/kg	IHP	AR	< 2.00		< 2.00	
Hazwaste Soil Report								
Hazwaste Report		n/a	IHP	IHP	**Attached**		**Attached**	
Loss on Ignition								
Loss on Ignition (440 ℃)		%	MT/ACSE/302	AD	**5.0**	*f	**9.5**	*f
Metals (Soil)								
Arsenic		mg/kg	MT/ACSE/201	AD	**16.1**	*	**18.4**	*
Beryllium		mg/kg	MT/ACSE/201	AD	**1.14**		**0.92**	
Cadmium		mg/kg	MT/ACSE/201	AD	**1.12**	*	**1.06**	*
Chromium		mg/kg	MT/ACSE/201	AD	**57.7**	*	**40.8**	*
Copper		mg/kg	MT/ACSE/201	AD	**245**	*	**84.3**	*
Mercury		mg/kg	MT/ACSE/202	AD	**0.345**	*	**0.857**	*#
Manganese		mg/kg	MT/ACSE/201	AD	**403**		**472**	
Molybdenum		mg/kg	MT/ACSE/201	AD	**2.88**		**1.61**	
Nickel		mg/kg	MT/ACSE/201	AD	**35.4**	*	**23.7**	*
Lead		mg/kg	MT/ACSE/201	AD	**131**	*	**99.7**	*
Antimony		mg/kg	MT/ACSE/201	AD	< 0.10		< 0.10	
Selenium		mg/kg	MT/ACSE/201	AD	< 6.00	*	< 6.00	*
Zinc		mg/kg	MT/ACSE/201	AD	**264**	*	**234**	*
Chromium Hexavalent		mg/kg	NAM/ACSE/X11	AD	< 0.20		< 0.20	
Boron (Hot Water Soluble)		mg/kg	NAM/ACSE/X08	AD	**2.25**		**1.65**	
pH and Conductivity								
pH (@ 20℃)		units	MT/ACSE/301	AD	**7.8**	*f	**8.9**	*f
Phenols								
Phenol Index		mg/kg	IHP	AR	< 2.00		< 2.00	
Poly Aromatic Hydrocarbons								
Naphthalene		mg/kg	MT/ACSE/108	AR	**0.41**	*	**0.18**	*
Acenaphthylene		mg/kg	MT/ACSE/108	AR	**0.24**	*	**0.11**	*
Acenaphthene		mg/kg	MT/ACSE/108	AR	**1.21**	*	**0.65**	*
Fluorene		mg/kg	MT/ACSE/108	AR	**2.30**	*	**0.41**	*
Phenanthrene		mg/kg	MT/ACSE/108	AR	**11.7**	*	**3.34**	*
Anthracene		mg/kg	MT/ACSE/108	AR	**4.39**	*	**1.50**	*

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ACSE Sample Number	**73191**	**73192**
Sample ID	**716201 - 23-93801**	**716202 - 23-93801**
Clients Sample Ref.^	**Organics Sample**	**Filter Cake Sample**
Location / Sample Depth (m)^	**Wash Plant**	**Wash Plant**
Date Sampled^	**09/05/2023**	**09/05/2023**
Time Sampled^		
Sample deviating codes	**ef**	**ef**
Client's Sample Description^		
ACS Testing Material Description^	**Organics**	**Filter Cake**
ACSE Material Description (Principal Matrix - As Received)	**ORGANICS**	**CLAY**

Determination	HWOL Acroynm	Units	Method	Prepared As	Result	AS	Result	AS
Fluoranthene		mg/kg	MT/ACSE/108	AR	**15.4**	*	**8.01**	*
Pyrene		mg/kg	MT/ACSE/108	AR	**13.2**	*	**7.02**	*
Benzo (a) anthracene		mg/kg	MT/ACSE/108	AR	**6.04**	*	**3.49**	*
Chrysene		mg/kg	MT/ACSE/108	AR	**6.11**	*	**3.57**	*
Benzo (b) fluoranthene		mg/kg	MT/ACSE/108	AR	**6.25**	*	**3.74**	*
Benzo (k) fluoranthene		mg/kg	MT/ACSE/108	AR	**2.41**	*	**1.18**	*
Benzo (a) pyrene		mg/kg	MT/ACSE/108	AR	**4.80**	*	**2.81**	*
Indeno (1 2 3-CD) pyrene		mg/kg	MT/ACSE/108	AR	**3.96**	*	**2.13**	*
Dibenzo(a h)anthracene		mg/kg	MT/ACSE/108	AR	**0.98**	*	**0.56**	*
Benzo(g h i)perylene		mg/kg	MT/ACSE/108	AR	**4.22**	*	**2.25**	*
Total PAH		mg/kg	MT/ACSE/108	AR	**83.6**	*	**40.9**	*
Polychlorinated Biphenyls (PCBs)								
PCB (7 Congeners)		mg/kg	MT/ACSE/110	AR	< 1.00	*	< 1.00	*
Speciated BTEX								
MTBE	HS_1D_TOTAL	mg/kg	NAM/ACSE/X12	AR	< 0.0100		< 0.0100	
Hexane	HS_1D_TOTAL	mg/kg	NAM/ACSE/X06	AR	< 0.0100		< 0.0100	
Heptane	HS_1D_TOTAL	mg/kg	NAM/ACSE/X06	AR	< 0.0100		< 0.0100	
Octane	HS_1D_TOTAL	mg/kg	NAM/ACSE/X06	AR	< 0.0100		< 0.0100	
Benzene	HS_1D_TOTAL	mg/kg	NAM/ACSE/X06	AR	< 0.0100		< 0.0100	
Toluene	HS_1D_TOTAL	mg/kg	NAM/ACSE/X06	AR	< 0.0100		< 0.0100	
Ethylbenzene	HS_1D_TOTAL	mg/kg	NAM/ACSE/X06	AR	< 0.0100		< 0.0100	
m+p-xylene	HS_1D_TOTAL	mg/kg	NAM/ACSE/X06	AR	< 0.0100		< 0.0100	
o-xylene	HS_1D_TOTAL	mg/kg	NAM/ACSE/X06	AR	< 0.0100		< 0.0100	
Total BTEX	HS_1D_TOTAL	mg/kg	NAM/ACSE/X06	AR	< 0.05		< 0.05	
Subcontracted Analysis								
Asbestos Fibre ID		SC	SC	SC	**Attached**		**Attached**	
Sulphates								
Acid Soluble Sulphate		%SO4	NAM/ACSE/X34	AD	**1.08**		**0.62**	
Total TPH (C10-C40) with cleanup								
Mineral Oil (C10-C40)	EH_CU_1D_TOTAL	mg/kg	MT/ACSE/105	AR	< 50		< 50	
Total TPH (C6-C40) with cleanup								
Mineral Oil (C6-C40)	EH_CU+HS_1D_TOTAL	mg/kg	MT/ACSE/105	AR	< 50		< 50	

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Technical Information for Analytical Results

Analysis

* - denotes analysis covered by our UKAS accreditation.
# - denoted analysis covered by our MCERTS certification & UKAS accreditation.
Loss on Ignition (MT/ACSE/302) is carried out at our laboratory at Unit D11 Admiralty Park, Station Road, Holton Heath, Poole, Dorset BH16 6HX.
AD = Sample tested in air dried condition.
AR = Sample tested in as-received condition.
AS = Accreditation status.
D = Sample tested in dry condition.
L = Laboratory prepared leachate.
SC = Sub contracted.
^ = Clients supplied information.
All MCERTS certified test values reported on a dry weight basis.
The preparation of 10:1 Leachates (to BS EN 12457-2:2002) and 2:1 leachates (to BS EN 12457-1:2002) fall outside the scope of our UKAS accreditation.
Soils and leachates are prepared at our laboratory at Unit D11 Admiralty Park, Station Road, Holton Heath, Poole, Dorset BH16 6HX.
Method uncertainty available on request.
Where results are less than the limit of detection, the value of 0 is used in calculations.

Key to HWOL Acronyms

Acronym		Description
HS	-	Headspace analysis
EH	-	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	-	Clean-up - e.g. by florisil, silica gel
1D	-	GC - Single coil gas chromatography
Total	-	Aliphatics & Aromatics
AL	-	Aliphatics only
AR	-	Aromatics only
2D	-	GC-GC - Double coil gas chromatography
#1	-	e.g. EH_2D_Total_#1 means humics mathematically subtracted
#2	-	e.g. EH_2D_Total_#2 means fatty acids mathematically subtracted
_	-	Operator - underscore to separate acronyms (exception for +)
+	-	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Deviating Codes

Deviating Samples

The use of any of the following symbols indicates that the sample was deviating and it is possible therefore that the results provided may not be representative of the sample taken.

a – The date and /or time of sampling has not been provided, therefore it is not known if the time lapse between sampling and analysis has exceeded the acceptable holding time(s)*.
b – The test item was received in a container which has not been recommended*.
c – On receipt, the temperature of the sample received was found to fall outside the recommendations of BS ISO 18512:2007, Soil Quality. Guidance on long and short term storage of soil samples*.
d – The sample was received in a container that had not been filled as recommended*.
e – The delay between sampling and sample receipt is greater than the recommended holding time for the analyte of interest in this matrix*.
f – The delay between sampling and analysis is greater than the recommended holding time for the analyte of interest in this matrix*.

In accordance with the requirements of Technical Policy Statement TPS 63; UKAS Policy on Deviating Samples, all UKAS accredited testing laboratories are required to notify their clients that calibration or test results may be invalid where samples are found to be deviating. It is the opinion of ACSE that the term invalid should be interpreted as 'not fully representative of the sample taken at source'.

The following Additional Deviating Sample Codes may also be used.

I/S – Insufficient sample mass/volume received for accurate quantification of this analyte.
U/S – The sample received was deemed unsuitable for accurate determination of this analyte using the Test Methods available.

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UKAS TESTING
4161

CTS Group
7 - 11 Harding Street
Leicester
LE1 4DH

ACS
Unit 14b Blackhill Road West
Holton Heath Trading Park
Poole
BH16 6LE

Analytical Test Report: L23/02243/ACS - 23-33947

Your Project Reference:	**E/23-01160/5768**		
Your Order Number:	E/23-01160/5768	Samples Received / Instructed:	18/05/2023 / 18/05/2023
Report Issue Number:	1	Sample Tested:	18/05 to 22/05/2023
Samples Analysed:	2 soil samples	Report issued:	22/05/2023

Signed

James Gane
Analytical Services Manager
CTS Group

Notes:

General

Please refer to Methodologies page for details pertaining to the analytical methods undertaken.

Samples will be retained for 14 days after issue of this report with the exception of the asbestos test portion which is held for 6 months unless otherwise requested.

Moisture Content was determined in accordance with CTS method statement MS - CL - Sample Prep, oven dried at <30˚C.

Moisture Content is reported as a percentage of the dry mass of soil, this calculation is in accordance with BS1377, Part 2, 1990, Clause 3.2

Where specification limits are included these are for guidance only. Where a measured value has been highlighted this is not implying acceptance or failure and certainty of measurement values have not been taken into account.

Uncertainty of measurement values are available on request.

Samples were supplied by customer, results apply to the samples as received.

Asbestos

Please note: Where futher analaysis is required samples identified as containing asbestos are screened and tested on an as recevied basis. No correction is made for moisture content and these results are not covered by our accrediation

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation

Deviating Samples

On receipt samples are compared against our sample holding and handling protocols, where any deviations have been noted these are reported on our deviating sample page (if present)

Accreditation Key

UKAS = UKAS Accreditation, MCERTS = MCERTS Accreditation, u = Unaccredited

MCERTS Accreditation only covers the SAND, CLAY and LOAM matrices

Date of Issue: 26.04.23

Issued by: J. Gane

Issue No: 3

Rev No: 1

7 - 11 Harding Street
Leicester
LE1 4DH

L23/02243/ACS - 23-33947

Project Reference - E/23-01160/5768

Analytical Test Results - Soil

Lab Reference			293862	293863
Client Sample ID			716201 - 23-93801	716202 - 23-93801
Client Sample Location			Organics Sample	Filter Cake Sample
Client Sample Type			-	-
Client Sample Number			73191	73192
Depth - Top (m)			-	-
Depth - Bottom (m)			-	-
Date of Sampling			09/05/2023	09/05/2023
Time of Sampling			-	-
Sample Matrix			Sand	Clay
Determinant	**Units**	**Accreditation**		
Asbestos	-	UKAS	No asbestos detected	No asbestos detected

UKAS TESTING
4161

CTS Group
7 - 11 Harding Street
Leicester
LE1 4DH

L23/02243/ACS - 23-33947

Project Reference - E/23-01160/5768

Analysis Methodologies

Test Code	Test Name / Reference	Sample condition for analysis	Sample Preperation	Test Details
ASB	MS - AS - Asbestos	-	-	Fibre identification is in accordance with in house documented methods which are based on the procedure documented in the HSE Document HSG 248 "Asbestos: The analysts guide for sampling, analysis and clearance procedures"
SAMPLEPREP	MS - CL - Sample Preparation	-	-	Preparation of samples (including determination of moisture content) to allow for subsequent analysis

ANALYTICAL CONSTRUCTION SERVICES
A PHENNA GROUP COMPANY

HazWasteOnline™

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

a) understand the origin of the waste
b) select the correct List of Waste code(s)
c) confirm that the list of determinands, results and sampling plan are fit for purpose
d) select and justify the chosen metal species (Appendix B)
e) correctly apply moisture correction and other available corrections
f) add the meta data for their user-defined substances (Appendix A)
g) check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

ABFL3-05GEK-4GQ3Z

Job name

23-01160

Description/Comments

Project

23-93801

Site

Allstone Speedy Skips

Classified by

Name:
Brent Graham
Date:
31 May 2023 13:56 GMT
Telephone:
01202 622858

Company:
ACS Testing Limited
Unit 14 Blackhill Road West
Holton Heath Trading Park
Poole
BH16 6LE

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification: **CERTIFIED**

Course	Date
Hazardous Waste Classification	04 Feb 2021

Next 3 year Refresher due by Feb 2024

Purpose of classification

4 - Classification of Waste Products

Address of the waste

Allstone Sand & Gravel, Allstone House, Myers Road, Gloucester **Post Code** GL1 3QD

SIC for the process giving rise to the waste

46130 Agents involved in the sale of timber and building materials

Description of industry/producer giving rise to the waste

Waste

Description of the specific process, sub-process and/or activity that created the waste

Waste created from aggregate washing plant

Description of the waste

Brown, pressed, solid and clay based

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	716201 - 23-93801-Wash Plant		Non Hazardous		3
2	716202 - 23-93801-Wash Plant		Non Hazardous		6

Related documents

#	Name	Description
1	23-01160.HWOL	ACS Environmental .hwol file used to populate the Job
2	Example waste stream template for contaminated soils	waste stream template used to create this Job

Report

Created by: Brent Graham

Created date: 31 May 2023 13:56 GMT

Classification of sample: 716201 - 23-93801-Wash Plant

Non Hazardous Waste
Classified as **19 12 12**
in the List of Waste

Sample details

Sample name:
716201 - 23-93801-Wash Plant
Moisture content:
37.7%
(dry weight correction)

LoW Code:
Chapter:
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
Entry:
19 12 12 (other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11)

Hazard properties

None identified

Determinands

Moisture content: 37.7% Dry Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<0.1	mg/kg	1.197	<0.12	mg/kg	<0.000012 %		<**LOD**
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		16.1	mg/kg	1.32	15.437	mg/kg	0.00154 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.14	mg/kg	2.775	2.298	mg/kg	0.00023 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		2.25	mg/kg	3.22	5.261	mg/kg	0.000526 %	✓	
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1.12	mg/kg	1.142	0.929	mg/kg	0.0000929 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		57.7	mg/kg	1.462	61.243	mg/kg	0.00612 %	✓	
7	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<0.2	mg/kg	2.27	<0.454	mg/kg	<0.0000454 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		245	mg/kg	1.126	200.321	mg/kg	0.02 %	✓	
9	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	131	mg/kg	1.56	148.392	mg/kg	0.00951 %	✓	
10	manganese { manganese sulphate }	025-003-00-4	232-089-9	7785-87-7		403	mg/kg	2.749	804.409	mg/kg	0.0804 %	✓	
11	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.345	mg/kg	1.353	0.339	mg/kg	0.0000339 %	✓	
12	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		2.88	mg/kg	1.5	3.138	mg/kg	0.000314 %	✓	
13	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		35.4	mg/kg	2.976	76.514	mg/kg	0.00765 %	✓	
14	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<6	mg/kg	2.554	<15.323	mg/kg	<0.00153 %		<**LOD**
15	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		264	mg/kg	2.774	531.863	mg/kg	0.0532 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16		TPH (C6 to C40) petroleum group		TPH		<50	mg/kg		<50	mg/kg	<0.005 %		<LOD
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
18		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
19		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
20		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
21		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
22		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<2	mg/kg	1.884	<3.768	mg/kg	<0.000377 %		<LOD
		006-007-00-5											
23		pH		PH		7.8	pH		7.8	pH	7.8 pH		
24		naphthalene				0.41	mg/kg		0.298	mg/kg	0.0000298 %	✓	
		601-052-00-2	202-049-5	91-20-3									
25		acenaphthylene				0.24	mg/kg		0.174	mg/kg	0.0000174 %	✓	
			205-917-1	208-96-8									
26		acenaphthene				1.21	mg/kg		0.879	mg/kg	0.0000879 %	✓	
			201-469-6	83-32-9									
27		fluorene				2.3	mg/kg		1.67	mg/kg	0.000167 %	✓	
			201-695-5	86-73-7									
28		phenanthrene				11.7	mg/kg		8.497	mg/kg	0.00085 %	✓	
			201-581-5	85-01-8									
29		anthracene				4.39	mg/kg		3.188	mg/kg	0.000319 %	✓	
			204-371-1	120-12-7									
30		fluoranthene				15.4	mg/kg		11.184	mg/kg	0.00112 %	✓	
			205-912-4	206-44-0									
31		pyrene				13.2	mg/kg		9.586	mg/kg	0.000959 %	✓	
			204-927-3	129-00-0									
32		benzo[a]anthracene				6.04	mg/kg		4.386	mg/kg	0.000439 %	✓	
		601-033-00-9	200-280-6	56-55-3									
33		chrysene				6.11	mg/kg		4.437	mg/kg	0.000444 %	✓	
		601-048-00-0	205-923-4	218-01-9									
34		benzo[b]fluoranthene				6.25	mg/kg		4.539	mg/kg	0.000454 %	✓	
		601-034-00-4	205-911-9	205-99-2									
35		benzo[k]fluoranthene				2.41	mg/kg		1.75	mg/kg	0.000175 %	✓	
		601-036-00-5	205-916-6	207-08-9									
36		benzo[a]pyrene; benzo[def]chrysene				4.8	mg/kg		3.486	mg/kg	0.000349 %	✓	
		601-032-00-3	200-028-5	50-32-8									
37		indeno[123-cd]pyrene				3.96	mg/kg		2.876	mg/kg	0.000288 %	✓	
			205-893-2	193-39-5									
38		dibenz[a,h]anthracene				0.98	mg/kg		0.712	mg/kg	0.0000712 %	✓	
		601-041-00-2	200-181-8	53-70-3									
39		benzo[ghi]perylene				4.22	mg/kg		3.065	mg/kg	0.000306 %	✓	
			205-883-8	191-24-2									
40		phenol				<2	mg/kg		<2	mg/kg	<0.0002 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
41		polychlorobiphenyls; PCB				<			<		<		ND
		602-039-00-4	215-648-1	1336-36-3									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
42		n-hexane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-037-00-0	203-777-6	110-54-3									
43		heptane; n-heptane; [1] 2,4-dimethylpentane; [2] 2,2,3-trimethylbutane; [3] 3,3-dimethylpentane; [4] 2,3-dimethylpentane; [5] 3-methylhexane; [6] 2,2-dimethylpentane; [7] 2-methylhexane; [8] 3-ethylpentane; [9] isoheptane; [10]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-008-00-2	205-563-8 [1] 203-548-0 [2] 207-346-3 [3] 209-230-8 [4] 209-280-0 [5] 209-643-3 [6] 209-680-5 [7] 209-730-6 [8] 210-529-0 [9] 250-610-8 [10]	142-82-5 [1] 108-08-7 [2] 464-06-2 [3] 562-49-2 [4] 565-59-3 [5] 589-34-4 [6] 590-35-2 [7] 591-76-4 [8] 617-78-7 [9] 31394-54-4 [10]								
44		octane; n-octane; [1] 2,2,4-trimethylpentane; [2] 2,3,3-trimethylpentane; [3] 3,3-dimethylhexane; [4] 2,2,3-trimethylpentane; [5] 2,3,4-trimethylpentane; [6] 3,4-dimethylhexane; [7] 2,3-dimethylhexane; [8] 2,4-dimethylhexane; [9] 4-methylheptane; [10] 3-methylheptane; [11] 2,2-dimethylhexane; [12] 2,5-dimethylhexane; [13] 2-methylheptane; [14] 2,2,3,3-tetramethylbutane; [15] 3-ethyl-2-methylpentane; [16] 3-ethylhexane; [17] 3-ethyl-3-methylpentane; [18] isooctane; [19]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-009-00-8	203-892-1 [1] 208-759-1 [2] 209-207-2 [3] 209-243-9 [4] 209-266-4 [5] 209-292-6 [6] 209-504-7 [7] 209-547-1 [8] 209-649-6 [9] 209-650-1 [10] 209-660-6 [11] 209-689-4 [12] 209-745-8 [13] 209-747-9 [14] 209-855-6 [15] 210-187-2 [16] 210-621-0 [17] 213-923-0 [18] 247-861-0 [19]	111-65-9 [1] 540-84-1 [2] 560-21-4 [3] 563-16-6 [4] 564-02-3 [5] 565-75-3 [6] 583-48-2 [7] 584-94-1 [8] 589-43-5 [9] 589-53-7 [10] 589-81-1 [11] 590-73-8 [12] 592-13-2 [13] 592-27-8 [14] 594-82-1 [15] 609-26-7 [16] 619-99-8 [17] 1067-08-9 [18] 26635-64-3 [19]								
										Total:	0.193 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: 716202 - 23-93801-Wash Plant

Non Hazardous Waste
Classified as **19 12 12**
in the List of Waste

Sample details

Sample name:
716202 - 23-93801-Wash Plant
Moisture content:
23%
(dry weight correction)

LoW Code:
Chapter: 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
Entry: 19 12 12 (other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11)

Hazard properties

None identified

Determinands

Moisture content: 23% Dry Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<0.1 mg/kg	1.197	<0.12 mg/kg	<0.000012 %		<LOD
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		18.4 mg/kg	1.32	19.751 mg/kg	0.00198 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.92 mg/kg	2.775	2.076 mg/kg	0.000208 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		1.65 mg/kg	3.22	4.319 mg/kg	0.000432 %	✓	
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1.06 mg/kg	1.142	0.984 mg/kg	0.0000984 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		40.8 mg/kg	1.462	48.481 mg/kg	0.00485 %	✓	
7	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<0.2 mg/kg	2.27	<0.454 mg/kg	<0.0000454 %		<LOD
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		84.3 mg/kg	1.126	77.165 mg/kg	0.00772 %	✓	
9	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	99.7 mg/kg	1.56	126.434 mg/kg	0.00811 %	✓	
10	manganese { manganese sulphate }	025-003-00-4	232-089-9	7785-87-7		472 mg/kg	2.749	1054.733 mg/kg	0.105 %	✓	
11	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.857 mg/kg	1.353	0.943 mg/kg	0.0000943 %	✓	
12	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		1.61 mg/kg	1.5	1.964 mg/kg	0.000196 %	✓	
13	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		23.7 mg/kg	2.976	57.348 mg/kg	0.00573 %	✓	
14	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<6 mg/kg	2.554	<15.323 mg/kg	<0.00153 %		<LOD
15	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		234 mg/kg	2.774	527.764 mg/kg	0.0528 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16		TPH (C6 to C40) petroleum group		TPH		<50	mg/kg		<50	mg/kg	<0.005 %		<**LOD**
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		603-181-00-X	216-653-1	1634-04-4									
18		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
19		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
20		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
21		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
22		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<2	mg/kg	1.884	<3.768	mg/kg	<0.000377 %		<**LOD**
		006-007-00-5											
23		pH		PH		8.9	pH		8.9	pH	8.9 pH		
24		naphthalene				0.18	mg/kg		0.146	mg/kg	0.0000146 %	✓	
		601-052-00-2	202-049-5	91-20-3									
25		acenaphthylene				0.11	mg/kg		0.0894	mg/kg	0.00000894 %	✓	
			205-917-1	208-96-8									
26		acenaphthene				0.65	mg/kg		0.528	mg/kg	0.0000528 %	✓	
			201-469-6	83-32-9									
27		fluorene				0.41	mg/kg		0.333	mg/kg	0.0000333 %	✓	
			201-695-5	86-73-7									
28		phenanthrene				3.34	mg/kg		2.715	mg/kg	0.000272 %	✓	
			201-581-5	85-01-8									
29		anthracene				1.5	mg/kg		1.22	mg/kg	0.000122 %	✓	
			204-371-1	120-12-7									
30		fluoranthene				8.01	mg/kg		6.512	mg/kg	0.000651 %	✓	
			205-912-4	206-44-0									
31		pyrene				7.02	mg/kg		5.707	mg/kg	0.000571 %	✓	
			204-927-3	129-00-0									
32		benzo[a]anthracene				3.49	mg/kg		2.837	mg/kg	0.000284 %	✓	
		601-033-00-9	200-280-6	56-55-3									
33		chrysene				3.57	mg/kg		2.902	mg/kg	0.00029 %	✓	
		601-048-00-0	205-923-4	218-01-9									
34		benzo[b]fluoranthene				3.74	mg/kg		3.041	mg/kg	0.000304 %	✓	
		601-034-00-4	205-911-9	205-99-2									
35		benzo[k]fluoranthene				1.18	mg/kg		0.959	mg/kg	0.0000959 %	✓	
		601-036-00-5	205-916-6	207-08-9									
36		benzo[a]pyrene; benzo[def]chrysene				2.81	mg/kg		2.285	mg/kg	0.000228 %	✓	
		601-032-00-3	200-028-5	50-32-8									
37		indeno[123-cd]pyrene				2.13	mg/kg		1.732	mg/kg	0.000173 %	✓	
			205-893-2	193-39-5									
38		dibenz[a,h]anthracene				0.56	mg/kg		0.455	mg/kg	0.0000455 %	✓	
		601-041-00-2	200-181-8	53-70-3									
39		benzo[ghi]perylene				2.25	mg/kg		1.829	mg/kg	0.000183 %	✓	
			205-883-8	191-24-2									
40		phenol				<2	mg/kg		<2	mg/kg	<0.0002 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
41		polychlorobiphenyls; PCB				<			<		<		**ND**
		602-039-00-4	215-648-1	1336-36-3									

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
42	n-hexane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
	601-037-00-0	203-777-6	110-54-3									
43	heptane; n-heptane; [1] 2,4-dimethylpentane; [2] 2,2,3-trimethylbutane; [3] 3,3-dimethylpentane; [4] 2,3-dimethylpentane; [5] 3-methylhexane; [6] 2,2-dimethylpentane; [7] 2-methylhexane; [8] 3-ethylpentane; [9] isoheptane; [10]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
	601-008-00-2	205-563-8 [1] 203-548-0 [2] 207-346-3 [3] 209-230-8 [4] 209-280-0 [5] 209-643-3 [6] 209-680-5 [7] 209-730-6 [8] 210-529-0 [9] 250-610-8 [10]	142-82-5 [1] 108-08-7 [2] 464-06-2 [3] 562-49-2 [4] 565-59-3 [5] 589-34-4 [6] 590-35-2 [7] 591-76-4 [8] 617-78-7 [9] 31394-54-4 [10]								
44	octane; n-octane; [1] 2,2,4-trimethylpentane; [2] 2,3,3-trimethylpentane; [3] 3,3-dimethylhexane; [4] 2,2,3-trimethylpentane; [5] 2,3,4-trimethylpentane; [6] 3,4-dimethylhexane; [7] 2,3-dimethylhexane; [8] 2,4-dimethylhexane; [9] 4-methylheptane; [10] 3-methylheptane; [11] 2,2-dimethylhexane; [12] 2,5-dimethylhexane; [13] 2-methylheptane; [14] 2,2,3,3-tetramethylbutane; [15] 3-ethyl-2-methylpentane; [16] 3-ethylhexane; [17] 3-ethyl-3-methylpentane; [18] isooctane; [19]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
	601-009-00-8	203-892-1 [1] 208-759-1 [2] 209-207-2 [3] 209-243-9 [4] 209-266-4 [5] 209-292-6 [6] 209-504-7 [7] 209-547-1 [8] 209-649-6 [9] 209-650-1 [10] 209-660-6 [11] 209-689-4 [12] 209-745-8 [13] 209-747-9 [14] 209-855-6 [15] 210-187-2 [16] 210-621-0 [17] 213-923-0 [18] 247-861-0 [19]	111-65-9 [1] 540-84-1 [2] 560-21-4 [3] 563-16-6 [4] 564-02-3 [5] 565-75-3 [6] 583-48-2 [7] 584-94-1 [8] 589-43-5 [9] 589-53-7 [10] 589-81-1 [11] 590-73-8 [12] 592-13-2 [13] 592-27-8 [14] 594-82-1 [15] 609-26-7 [16] 619-99-8 [17] 1067-08-9 [18] 26635-64-3 [19]								
									Total:	0.198 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non GB MCL determinands

chromium(III) oxide (worst case) (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

TPH (C6 to C40) petroleum group (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , STOT RE 2; H373 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 2; H361d , Aquatic Chronic 2; H411

ethylbenzene (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4
Description/Comments:
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex

GB MCL index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
20 Nov 2021 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

pH (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H330 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315

acenaphthene (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Aquatic Chronic 2; H411

fluorene (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

phenanthrene (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 2; H351 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Skin Irrit. 2; H315

anthracene (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2; H351

- **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **polychlorobiphenyls; PCB** (EC Number: 215-648-1, CAS Number: 1336-36-3)

GB MCL index number: 602-039-00-4
Description/Comments: Worst Case: IARC considers PCB Group 1; Carcinogenic to humans;

POP specific threshold from ATP1 (Regulation 756/2010/EU) to POPs Regulation (Regulation 850/2004/EC). Where applicable, the calculation method laid down in European standards EN 12766-1 and EN 12766-2 shall be applied.
Additional Hazard Statement(s): Carc. 1A; H350
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

Appendix B: Rationale for selection of metal species

antimony {antimony trioxide}

Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds

beryllium {beryllium oxide}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: most common (non alloy) form, used in ceramics

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass

chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Worst case species based on hazard statements/molecular weight

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected.

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight

manganese {manganese sulphate}

Worst case CLP species based on hazard statements/molecular weight

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight

molybdenum {molybdenum(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2023.111.5569.10274 (22 Apr 2023)
HazWasteOnline Database: 2023.111.5569.10274 (22 Apr 2023)

This classification utilises the following guidance and legislation:
WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
GB MCL List - version 1.1 of 09 June 2021

ACS Testing Ltd
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Holton Heath Trading Park
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Dorset
BH16 6LE

Certificate of Analysis

Certificate Number : 23-01231-Issue 1-Page: 1

Report Fao:	ACS Testing Ltd
Site Address^:	Allstone Myres Road Gloucester
Client Order No:	23-93876
Date of Sampling^:	15/05/2023
Date Received:	18/05/2023
Date of Analysis:	18/05/2023 - 06/06/2023
Report Date:	06/06/2023

Please find your certificates of test attached for your samples received in the laboratory on 18/05/2023 under our laboratory reference 23-01231.

Remarks:

None

Results reviewed by:

Arron O'Hara - Senior Analyst

Test Certificates approved by:

Eoin Byrne Laboratory Manager

Any opinions or interpretations indicated are outside the scope of our UKAS accreditation.
This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report are representative of the samples submitted for analysis.
Excel copies of reports are valid only when accompanied by this PDF certificate.
Client's Sample Description / ACS Material Description are noted for reference only.

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4150

ACSE Sample Number	**73436**
Sample ID	**716646 - 23-93876**
Clients Sample Ref.^	**1605**
Location / Sample Depth (m)^	**Newlands Wash Plant**
Date Sampled^	**15/05/2023**
Time Sampled^	
Sample deviating codes	**f**
Client's Sample Description^	
ACS Testing Material Description^	**Filter Cake**
ACSE Material Description (Principal Matrix - As Received)	**CLAY**

Determination	HWOL Acroynm	Units	Method	Prepared As	Result	AS
Anions						
Water Soluble Sulphate		mg/l	MT/ACSE/204	AD	**1310**	*
BTEX						
Benzene	HS_1D_TOTAL	mg/kg	MT/ACSE/101	AR	< 0.10	*f
Ethylbenzene	HS_1D_TOTAL	mg/kg	MT/ACSE/101	AR	< 0.10	*f
m+p-xylene	HS_1D_TOTAL	mg/kg	MT/ACSE/101	AR	< 0.19	*f
o-xylene	HS_1D_TOTAL	mg/kg	MT/ACSE/101	AR	< 0.10	*f
Toluene	HS_1D_TOTAL	mg/kg	MT/ACSE/101	AR	< 0.10	*f
Total BTEX	HS_1D_TOTAL	mg/kg	MT/ACSE/101	AR	< 0.60	*f
Carbon						
TOC (Total Organic Carbon)		%	MT/ACSE/102	AR	**2.14**	*
Cyanide						
Total Cyanide		mg/kg	IHP	AR	< 2.00	
Hazwaste Soil Report						
Hazwaste Report		n/a	IHP	IHP	**Attached**	
Loss on Ignition						
Loss on Ignition (440 ℃)		%	MT/ACSE/302	AD	**5.6**	*f
Metals (Soil)						
Arsenic		mg/kg	MT/ACSE/201	AD	**23.6**	*
Beryllium		mg/kg	MT/ACSE/201	AD	**1.28**	
Cadmium		mg/kg	MT/ACSE/201	AD	**1.42**	*
Chromium		mg/kg	MT/ACSE/201	AD	**58.4**	*
Copper		mg/kg	MT/ACSE/201	AD	**93.7**	*
Mercury		mg/kg	MT/ACSE/202	AD	**0.186**	*#
Manganese		mg/kg	MT/ACSE/201	AD	**605**	
Molybdenum		mg/kg	MT/ACSE/201	AD	**1.78**	
Nickel		mg/kg	MT/ACSE/201	AD	**32.2**	*
Lead		mg/kg	MT/ACSE/201	AD	**102**	*
Antimony		mg/kg	MT/ACSE/201	AD	< 0.10	
Selenium		mg/kg	MT/ACSE/201	AD	< 6.00	*
Zinc		mg/kg	MT/ACSE/201	AD	**279**	*
Chromium Hexavalent		mg/kg	NAM/ACSE/X11	AD	< 0.20	
Boron (Hot Water Soluble)		mg/kg	NAM/ACSE/X08	AD	**1.66**	
pH and Conductivity						
pH (@ 20℃)		units	MT/ACSE/301	AD	**8.9**	*f
Phenols						
Phenol Index		mg/kg	IHP	AR	< 2.00	
Poly Aromatic Hydrocarbons						
Naphthalene		mg/kg	MT/ACSE/108	AR	< 0.10	*f
Acenaphthylene		mg/kg	MT/ACSE/108	AR	< 0.10	*f
Acenaphthene		mg/kg	MT/ACSE/108	AR	**0.59**	*f
Fluorene		mg/kg	MT/ACSE/108	AR	**0.37**	*f
Phenanthrene		mg/kg	MT/ACSE/108	AR	**1.90**	*f
Anthracene		mg/kg	MT/ACSE/108	AR	**1.05**	*f

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ACSE Sample Number	**73436**
Sample ID	**716646 - 23-93876**
Clients Sample Ref.^	**1605**
Location / Sample Depth (m)^	**Newlands Wash Plant**
Date Sampled^	**15/05/2023**
Time Sampled^	
Sample deviating codes	**f**
Client's Sample Description^	
ACS Testing Material Description^	**Filter Cake**
ACSE Material Description (Principal Matrix - As Received)	**CLAY**

Determination	HWOL Acroynm	Units	Method	Prepared As	Result	AS
Fluoranthene		mg/kg	MT/ACSE/108	AR	**5.82**	*f
Pyrene		mg/kg	MT/ACSE/108	AR	**5.28**	*f
Benzo (a) anthracene		mg/kg	MT/ACSE/108	AR	**2.00**	*f
Chrysene		mg/kg	MT/ACSE/108	AR	**2.11**	*f
Benzo (b) fluoranthene		mg/kg	MT/ACSE/108	AR	**2.07**	*f
Benzo (k) fluoranthene		mg/kg	MT/ACSE/108	AR	**0.74**	*f
Benzo (a) pyrene		mg/kg	MT/ACSE/108	AR	**1.63**	*f
Indeno (1 2 3-CD) pyrene		mg/kg	MT/ACSE/108	AR	**1.14**	*f
Dibenzo(a h)anthracene		mg/kg	MT/ACSE/108	AR	**0.27**	*f
Benzo(g h i)perylene		mg/kg	MT/ACSE/108	AR	**1.30**	*f
Total PAH		mg/kg	MT/ACSE/108	AR	**26.3**	*f
Polychlorinated Biphenyls (PCBs)						
PCB (7 Congeners)		mg/kg	MT/ACSE/110	AR	< 1.00	
Speciated BTEX						
MTBE	HS_1D_TOTAL	mg/kg	NAM/ACSE/X12	AR	< 0.0100	
Hexane	HS_1D_TOTAL	mg/kg	NAM/ACSE/X06	AR	< 0.0100	
Heptane	HS_1D_TOTAL	mg/kg	NAM/ACSE/X06	AR	< 0.0100	
Octane	HS_1D_TOTAL	mg/kg	NAM/ACSE/X06	AR	< 0.0100	
Benzene	HS_1D_TOTAL	mg/kg	NAM/ACSE/X06	AR	< 0.0100	
Toluene	HS_1D_TOTAL	mg/kg	NAM/ACSE/X06	AR	< 0.0100	
Ethylbenzene	HS_1D_TOTAL	mg/kg	NAM/ACSE/X06	AR	< 0.0100	
m+p-xylene	HS_1D_TOTAL	mg/kg	NAM/ACSE/X06	AR	< 0.0100	
o-xylene	HS_1D_TOTAL	mg/kg	NAM/ACSE/X06	AR	< 0.0100	
Total BTEX	HS_1D_TOTAL	mg/kg	NAM/ACSE/X06	AR	< 0.05	
Subcontracted Analysis						
Asbestos Fibre ID		SC	SC	SC	**Attached**	
Sulphates						
Acid Soluble Sulphate		%SO4	NAM/ACSE/X34	AD	**0.64**	
Total TPH (C10-C40) with cleanup						
Mineral Oil (C10-C40)	EH_CU_1D_TOTAL	mg/kg	MT/ACSE/105	AR	< 50	
Total TPH (C6-C40) with cleanup						
Mineral Oil (C6-C40)	EH_CU+HS_1D_TOTAL	mg/kg	MT/ACSE/105	AR	< 50	

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Technical Information for Analytical Results

Analysis

* - denotes analysis covered by our UKAS accreditation.
# - denoted analysis covered by our MCERTS certification & UKAS accreditation.
Loss on Ignition (MT/ACSE/302) is carried out at our laboratory at Unit D11 Admiralty Park, Station Road, Holton Heath, Poole, Dorset BH16 6HX.
AD = Sample tested in air dried condition.
AR = Sample tested in as-received condition.
AS = Accreditation status.
D = Sample tested in dry condition.
L = Laboratory prepared leachate.
SC = Sub contracted.
^ = Clients supplied information.
All MCERTS certified test values reported on a dry weight basis.
The preparation of 10:1 Leachates (to BS EN 12457-2:2002) and 2:1 leachates (to BS EN 12457-1:2002) fall outside the scope of our UKAS accreditation.
Soils and leachates are prepared at our laboratory at Unit D11 Admiralty Park, Station Road, Holton Heath, Poole, Dorset BH16 6HX.
Method uncertainty available on request.
Where results are less than the limit of detection, the value of 0 is used in calculations.

Key to HWOL Acronyms

Acronym		Description
HS	-	Headspace analysis
EH	-	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	-	Clean-up - e.g. by florisil, silica gel
1D	-	GC - Single coil gas chromatography
Total	-	Aliphatics & Aromatics
AL	-	Aliphatics only
AR	-	Aromatics only
2D	-	GC-GC - Double coil gas chromatography
#1	-	e.g. EH_2D_Total_#1 means humics mathematically subtracted
#2	-	e.g. EH_2D_Total_#2 means fatty acids mathematically subtracted
_	-	Operator - underscore to separate acronyms (exception for +)
+	-	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Deviating Codes

Deviating Samples

The use of any of the following symbols indicates that the sample was deviating and it is possible therefore that the results provided may not be representative of the sample taken.

a – The date and /or time of sampling has not been provided, therefore it is not known if the time lapse between sampling and analysis has exceeded the acceptable holding time(s)*.
b – The test item was received in a container which has not been recommended*.
c – On receipt, the temperature of the sample received was found to fall outside the recommendations of BS ISO 18512:2007, Soil Quality. Guidance on long and short term storage of soil samples*.
d – The sample was received in a container that had not been filled as recommended*.
e – The delay between sampling and sample receipt is greater than the recommended holding time for the analyte of interest in this matrix*.
f – The delay between sampling and analysis is greater than the recommended holding time for the analyte of interest in this matrix*.

In accordance with the requirements of Technical Policy Statement TPS 63; UKAS Policy on Deviating Samples, all UKAS accredited testing laboratories are required to notify their clients that calibration or test results may be invalid where samples are found to be deviating. It is the opinion of ACSE that the term invalid should be interpreted as 'not fully representative of the sample taken at source'.

The following Additional Deviating Sample Codes may also be used.

I/S – Insufficient sample mass/volume received for accurate quantification of this analyte.
U/S – The sample received was deemed unsuitable for accurate determination of this analyte using the Test Methods available.

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UKAS TESTING
4161

CTS Group
7 - 11 Harding Street
Leicester
LE1 4DH

ACS
Unit 14b Blackhill Road West
Holton Heath Trading Park
Poole
BH16 6LE

Analytical Test Report: L23/02356/ACS - 23-34082

Your Project Reference:	**E/23-01231/5799**		
Your Order Number:	E/23-01231/5799	Samples Received / Instructed:	24/05/2023 / 24/05/2023
Report Issue Number:	1	Sample Tested:	24/05 to 25/05/2023
Samples Analysed:	1 soil sample	Report issued:	25/05/2023

Signed

James Gane
Analytical Services Manager
CTS Group

Notes:

General

Please refer to Methodologies page for details pertaining to the analytical methods undertaken.

Samples will be retained for 14 days after issue of this report with the exception of the asbestos test portion which is held for 6 months unless otherwise requested.

Moisture Content was determined in accordance with CTS method statement MS - CL - Sample Prep, oven dried at <30˚C.

Moisture Content is reported as a percentage of the dry mass of soil, this calculation is in accordance with BS1377, Part 2, 1990, Clause 3.2

Where specification limits are included these are for guidance only. Where a measured value has been highlighted this is not implying acceptance or failure and certainty of measurement values have not been taken into account.

Uncertainty of measurement values are available on request.

Samples were supplied by customer, results apply to the samples as received.

Asbestos

Please note: Where futher analaysis is required samples identified as containing asbestos are screened and tested on an as recevied basis. No correction is made for moisture content and these results are not covered by our accrediation

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation

Deviating Samples

On receipt samples are compared against our sample holding and handling protocols, where any deviations have been noted these are reported on our deviating sample page (if present)

Accreditation Key

UKAS = UKAS Accreditation, MCERTS = MCERTS Accreditation, u = Unaccredited

MCERTS Accreditation only covers the SAND, CLAY and LOAM matrices

Date of Issue: 26.04.23

Issued by: J. Gane

Issue No: 3

Rev No: 1

7 - 11 Harding Street
Leicester
LE1 4DH

L23/02356/ACS - 23-34082

Project Reference - E/23-01231/5799

Analytical Test Results - Soil

Lab Reference			**295349**
Client Sample ID			716646-23-93876
Client Sample Location			1605
Client Sample Type			-
Client Sample Number			73436
Depth - Top (m)			-
Depth - Bottom (m)			-
Date of Sampling			15/05/2023
Time of Sampling			-
Sample Matrix			Clay
Determinant	**Units**	**Accreditation**	
Asbestos	-	UKAS	No asbestos detected

UKAS TESTING
4161

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LE1 4DH

L23/02356/ACS - 23-34082

Project Reference - E/23-01231/5799

Analysis Methodologies

Test Code	Test Name / Reference	Sample condition for analysis	Sample Preperation	Test Details
ASB	MS - AS - Asbestos	-	-	Fibre identification is in accordance with in house documented methods which are based on the procedure documented in the HSE Document HSG 248 "Asbestos: The analysts guide for sampling, analysis and clearance procedures"
SAMPLEPREP	MS - CL - Sample Preparation	-	-	Preparation of samples (including determination of moisture content) to allow for subsequent analysis

ANALYTICAL CONSTRUCTION SERVICES
A PHENNA GROUP COMPANY

HazWasteOnline™

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

a) understand the origin of the waste
b) select the correct List of Waste code(s)
c) confirm that the list of determinands, results and sampling plan are fit for purpose
d) select and justify the chosen metal species (Appendix B)
e) correctly apply moisture correction and other available corrections
f) add the meta data for their user-defined substances (Appendix A)
g) check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

58QRQ-TJ15G-J93J9

Job name

23-01231

Description/Comments

Project

23-93876

Site

Allstone Myres Road

Classified by

Name:
Brent Graham
Date:
06 Jun 2023 14:30 GMT
Telephone:
01202 622858

Company:
ACS Testing Limited
Unit 14 Blackhill Road West
Holton Heath Trading Park
Poole
BH16 6LE

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification: **CERTIFIED**

Course	Date
Hazardous Waste Classification	04 Feb 2021

Next 3 year Refresher due by Feb 2024

Purpose of classification

4 - Classification of Waste Products

Address of the waste

Allstone Sand & Gravel, Allstone House, Myers Road, Gloucester **Post Code** GL1 3QD

SIC for the process giving rise to the waste

38110 Collection of non-hazardous waste

Description of industry/producer giving rise to the waste

Waste Recycling

Description of the specific process, sub-process and/or activity that created the waste

Dry Waste Screening

Description of the waste

Filter Cale

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	716646 - 23-93876-Newlands Wash		Non Hazardous		3

Related documents

#	Name	Description
1	23-01231.HWOL	ACS Environmental .hwol file used to populate the Job
2	Example waste stream template for contaminated soils	waste stream template used to create this Job

Report

Created by: Brent Graham

Created date: 06 Jun 2023 14:30 GMT

Classification of sample: 716646 - 23-93876-Newlands Wash

Non Hazardous Waste
Classified as **19 12 12**
in the List of Waste

Sample details

Sample name:
716646 - 23-93876-Newlands Wash
Moisture content:
29.1%
(dry weight correction)

LoW Code:
Chapter:
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
Entry:
19 12 12 (other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11)

Hazard properties

None identified

Determinands

Moisture content: 29.1% Dry Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<0.1 mg/kg	1.197	<0.12 mg/kg	<0.000012 %		<**LOD**
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		23.6 mg/kg	1.32	24.136 mg/kg	0.00241 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.28 mg/kg	2.775	2.752 mg/kg	0.000275 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		1.66 mg/kg	3.22	4.14 mg/kg	0.000414 %	✓	
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1.42 mg/kg	1.142	1.256 mg/kg	0.000126 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		58.4 mg/kg	1.462	66.115 mg/kg	0.00661 %	✓	
7	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<0.2 mg/kg	2.27	<0.454 mg/kg	<0.0000454 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		93.7 mg/kg	1.126	81.716 mg/kg	0.00817 %	✓	
9	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	102 mg/kg	1.56	123.239 mg/kg	0.0079 %	✓	
10	manganese { manganese sulphate }	025-003-00-4	232-089-9	7785-87-7		605 mg/kg	2.749	1288.057 mg/kg	0.129 %	✓	
11	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.186 mg/kg	1.353	0.195 mg/kg	0.0000195 %	✓	
12	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		1.78 mg/kg	1.5	2.068 mg/kg	0.000207 %	✓	
13	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		32.2 mg/kg	2.976	74.234 mg/kg	0.00742 %	✓	
14	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<6 mg/kg	2.554	<15.323 mg/kg	<0.00153 %		<**LOD**
15	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		279 mg/kg	2.774	599.525 mg/kg	0.06 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16		TPH (C6 to C40) petroleum group		TPH		<50	mg/kg		<50	mg/kg	<0.005 %		<LOD
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
18		benzene	601-020-00-8	200-753-7	71-43-2	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
19		toluene	601-021-00-3	203-625-9	108-88-3	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
20		ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
21		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
22		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5			<2	mg/kg	1.884	<3.768	mg/kg	<0.000377 %		<LOD
23		pH		PH		8.9	pH		8.9	pH	8.9 pH		
24		naphthalene	601-052-00-2	202-049-5	91-20-3	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
25		acenaphthylene		205-917-1	208-96-8	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
26		acenaphthene		201-469-6	83-32-9	0.59	mg/kg		0.457	mg/kg	0.0000457 %	✓	
27		fluorene		201-695-5	86-73-7	0.37	mg/kg		0.287	mg/kg	0.0000287 %	✓	
28		phenanthrene		201-581-5	85-01-8	1.9	mg/kg		1.472	mg/kg	0.000147 %	✓	
29		anthracene		204-371-1	120-12-7	1.05	mg/kg		0.813	mg/kg	0.0000813 %	✓	
30		fluoranthene		205-912-4	206-44-0	5.82	mg/kg		4.508	mg/kg	0.000451 %	✓	
31		pyrene		204-927-3	129-00-0	5.28	mg/kg		4.09	mg/kg	0.000409 %	✓	
32		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	2	mg/kg		1.549	mg/kg	0.000155 %	✓	
33		chrysene	601-048-00-0	205-923-4	218-01-9	2.11	mg/kg		1.634	mg/kg	0.000163 %	✓	
34		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	2.07	mg/kg		1.603	mg/kg	0.00016 %	✓	
35		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.74	mg/kg		0.573	mg/kg	0.0000573 %	✓	
36		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	1.63	mg/kg		1.263	mg/kg	0.000126 %	✓	
37		indeno[123-cd]pyrene		205-893-2	193-39-5	1.14	mg/kg		0.883	mg/kg	0.0000883 %	✓	
38		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.27	mg/kg		0.209	mg/kg	0.0000209 %	✓	
39		benzo[ghi]perylene		205-883-8	191-24-2	1.3	mg/kg		1.007	mg/kg	0.000101 %	✓	
40		phenol	604-001-00-2	203-632-7	108-95-2	<2	mg/kg		<2	mg/kg	<0.0002 %		<LOD
41		polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3	<			<		<		ND

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
42		n-hexane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-037-00-0	203-777-6	110-54-3									
43		heptane; n-heptane; [1] 2,4-dimethylpentane; [2] 2,2,3-trimethylbutane; [3] 3,3-dimethylpentane; [4] 2,3-dimethylpentane; [5] 3-methylhexane; [6] 2,2-dimethylpentane; [7] 2-methylhexane; [8] 3-ethylpentane; [9] isoheptane; [10]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-008-00-2	205-563-8 [1] 203-548-0 [2] 207-346-3 [3] 209-230-8 [4] 209-280-0 [5] 209-643-3 [6] 209-680-5 [7] 209-730-6 [8] 210-529-0 [9] 250-610-8 [10]	142-82-5 [1] 108-08-7 [2] 464-06-2 [3] 562-49-2 [4] 565-59-3 [5] 589-34-4 [6] 590-35-2 [7] 591-76-4 [8] 617-78-7 [9] 31394-54-4 [10]								
44		octane; n-octane; [1] 2,2,4-trimethylpentane; [2] 2,3,3-trimethylpentane; [3] 3,3-dimethylhexane; [4] 2,2,3-trimethylpentane; [5] 2,3,4-trimethylpentane; [6] 3,4-dimethylhexane; [7] 2,3-dimethylhexane; [8] 2,4-dimethylhexane; [9] 4-methylheptane; [10] 3-methylheptane; [11] 2,2-dimethylhexane; [12] 2,5-dimethylhexane; [13] 2-methylheptane; [14] 2,2,3,3-tetramethylbutane; [15] 3-ethyl-2-methylpentane; [16] 3-ethylhexane; [17] 3-ethyl-3-methylpentane; [18] isooctane; [19]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-009-00-8	203-892-1 [1] 208-759-1 [2] 209-207-2 [3] 209-243-9 [4] 209-266-4 [5] 209-292-6 [6] 209-504-7 [7] 209-547-1 [8] 209-649-6 [9] 209-650-1 [10] 209-660-6 [11] 209-689-4 [12] 209-745-8 [13] 209-747-9 [14] 209-855-6 [15] 210-187-2 [16] 210-621-0 [17] 213-923-0 [18] 247-861-0 [19]	111-65-9 [1] 540-84-1 [2] 560-21-4 [3] 563-16-6 [4] 564-02-3 [5] 565-75-3 [6] 583-48-2 [7] 584-94-1 [8] 589-43-5 [9] 589-53-7 [10] 589-81-1 [11] 590-73-8 [12] 592-13-2 [13] 592-27-8 [14] 594-82-1 [15] 609-26-7 [16] 619-99-8 [17] 1067-08-9 [18] 26635-64-3 [19]								
										Total:	0.232 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non GB MCL determinands

- **chromium(III) oxide (worst case)** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , STOT RE 2; H373 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 2; H361d , Aquatic Chronic 2; H411

- **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4
Description/Comments:
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

- **salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex**

GB MCL index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
20 Nov 2021 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

- **pH** (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

- **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H330 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315

- **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Aquatic Chronic 2; H411

- **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 2; H351 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Skin Irrit. 2; H315

- **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2; H351

- **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **polychlorobiphenyls; PCB** (EC Number: 215-648-1, CAS Number: 1336-36-3)

GB MCL index number: 602-039-00-4
Description/Comments: Worst Case: IARC considers PCB Group 1; Carcinogenic to humans;

POP specific threshold from ATP1 (Regulation 756/2010/EU) to POPs Regulation (Regulation 850/2004/EC). Where applicable, the calculation method laid down in European standards EN 12766-1 and EN 12766-2 shall be applied.
Additional Hazard Statement(s): Carc. 1A; H350
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

Appendix B: Rationale for selection of metal species

antimony {antimony trioxide}

Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds

beryllium {beryllium oxide}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: most common (non alloy) form, used in ceramics

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass

chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Worst case species based on hazard statements/molecular weight

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected.

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight

manganese {manganese sulphate}

Worst case CLP species based on hazard statements/molecular weight

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight

molybdenum {molybdenum(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2023.111.5569.10274 (22 Apr 2023)
HazWasteOnline Database: 2023.111.5569.10274 (22 Apr 2023)

This classification utilises the following guidance and legislation:
WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
GB MCL List - version 1.1 of 09 June 2021

ANALYTICAL CONSTRUCTION SERVICES
A PHENNA GROUP COMPANY

HazWasteOnline™

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

a) understand the origin of the waste
b) select the correct List of Waste code(s)
c) confirm that the list of determinands, results and sampling plan are fit for purpose
d) select and justify the chosen metal species (Appendix B)
e) correctly apply moisture correction and other available corrections
f) add the meta data for their user-defined substances (Appendix A)
g) check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

58QRQ-TJ15G-J93J9

Job name

23-01231

Description/Comments

Project

23-93876

Site

Allstone Myres Road

Classified by

Name:
Brent Graham
Date:
06 Jun 2023 14:30 GMT
Telephone:
01202 622858

Company:
ACS Testing Limited
Unit 14 Blackhill Road West
Holton Heath Trading Park
Poole
BH16 6LE

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification: **CERTIFIED**

Course	Date
Hazardous Waste Classification	04 Feb 2021

Next 3 year Refresher due by Feb 2024

Purpose of classification

4 - Classification of Waste Products

Address of the waste

Allstone Sand & Gravel, Allstone House, Myers Road, Gloucester **Post Code** GL1 3QD

SIC for the process giving rise to the waste

38110 Collection of non-hazardous waste

Description of industry/producer giving rise to the waste

Waste Recycling

Description of the specific process, sub-process and/or activity that created the waste

Dry Waste Screening

Description of the waste

Filter Cale

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	716646 - 23-93876-Newlands Wash		Non Hazardous		3

Related documents

#	Name	Description
1	23-01231.HWOL	ACS Environmental .hwol file used to populate the Job
2	Example waste stream template for contaminated soils	waste stream template used to create this Job

Report

Created by: Brent Graham

Created date: 06 Jun 2023 14:30 GMT

Classification of sample: 716646 - 23-93876-Newlands Wash

Non Hazardous Waste
Classified as **19 12 12**
in the List of Waste

Sample details

Sample name:
716646 - 23-93876-Newlands Wash
Moisture content:
29.1%
(dry weight correction)

LoW Code:
Chapter:
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
Entry:
19 12 12 (other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11)

Hazard properties

None identified

Determinands

Moisture content: 29.1% Dry Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4		<0.1 mg/kg	1.197	<0.12 mg/kg	<0.000012 %		<**LOD**
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		23.6 mg/kg	1.32	24.136 mg/kg	0.00241 %	✓	
3	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.28 mg/kg	2.775	2.752 mg/kg	0.000275 %	✓	
4	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2		1.66 mg/kg	3.22	4.14 mg/kg	0.000414 %	✓	
5	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		1.42 mg/kg	1.142	1.256 mg/kg	0.000126 %	✓	
6	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		58.4 mg/kg	1.462	66.115 mg/kg	0.00661 %	✓	
7	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<0.2 mg/kg	2.27	<0.454 mg/kg	<0.0000454 %		<**LOD**
8	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		93.7 mg/kg	1.126	81.716 mg/kg	0.00817 %	✓	
9	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	102 mg/kg	1.56	123.239 mg/kg	0.0079 %	✓	
10	manganese { manganese sulphate }	025-003-00-4	232-089-9	7785-87-7		605 mg/kg	2.749	1288.057 mg/kg	0.129 %	✓	
11	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.186 mg/kg	1.353	0.195 mg/kg	0.0000195 %	✓	
12	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5		1.78 mg/kg	1.5	2.068 mg/kg	0.000207 %	✓	
13	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		32.2 mg/kg	2.976	74.234 mg/kg	0.00742 %	✓	
14	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<6 mg/kg	2.554	<15.323 mg/kg	<0.00153 %		<**LOD**
15	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		279 mg/kg	2.774	599.525 mg/kg	0.06 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16		TPH (C6 to C40) petroleum group		TPH		<50	mg/kg		<50	mg/kg	<0.005 %		<LOD
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
18		benzene	601-020-00-8	200-753-7	71-43-2	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
19		toluene	601-021-00-3	203-625-9	108-88-3	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
20		ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
21		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
22		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5			<2	mg/kg	1.884	<3.768	mg/kg	<0.000377 %		<LOD
23		pH		PH		8.9	pH		8.9	pH	8.9 pH		
24		naphthalene	601-052-00-2	202-049-5	91-20-3	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
25		acenaphthylene		205-917-1	208-96-8	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
26		acenaphthene		201-469-6	83-32-9	0.59	mg/kg		0.457	mg/kg	0.0000457 %	✓	
27		fluorene		201-695-5	86-73-7	0.37	mg/kg		0.287	mg/kg	0.0000287 %	✓	
28		phenanthrene		201-581-5	85-01-8	1.9	mg/kg		1.472	mg/kg	0.000147 %	✓	
29		anthracene		204-371-1	120-12-7	1.05	mg/kg		0.813	mg/kg	0.0000813 %	✓	
30		fluoranthene		205-912-4	206-44-0	5.82	mg/kg		4.508	mg/kg	0.000451 %	✓	
31		pyrene		204-927-3	129-00-0	5.28	mg/kg		4.09	mg/kg	0.000409 %	✓	
32		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	2	mg/kg		1.549	mg/kg	0.000155 %	✓	
33		chrysene	601-048-00-0	205-923-4	218-01-9	2.11	mg/kg		1.634	mg/kg	0.000163 %	✓	
34		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	2.07	mg/kg		1.603	mg/kg	0.00016 %	✓	
35		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.74	mg/kg		0.573	mg/kg	0.0000573 %	✓	
36		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	1.63	mg/kg		1.263	mg/kg	0.000126 %	✓	
37		indeno[123-cd]pyrene		205-893-2	193-39-5	1.14	mg/kg		0.883	mg/kg	0.0000883 %	✓	
38		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.27	mg/kg		0.209	mg/kg	0.0000209 %	✓	
39		benzo[ghi]perylene		205-883-8	191-24-2	1.3	mg/kg		1.007	mg/kg	0.000101 %	✓	
40		phenol	604-001-00-2	203-632-7	108-95-2	<2	mg/kg		<2	mg/kg	<0.0002 %		<LOD
41		polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3	<			<		<		ND

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
42		n-hexane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-037-00-0	203-777-6	110-54-3									
43		heptane; n-heptane; [1] 2,4-dimethylpentane; [2] 2,2,3-trimethylbutane; [3] 3,3-dimethylpentane; [4] 2,3-dimethylpentane; [5] 3-methylhexane; [6] 2,2-dimethylpentane; [7] 2-methylhexane; [8] 3-ethylpentane; [9] isoheptane; [10]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-008-00-2	205-563-8 [1] 203-548-0 [2] 207-346-3 [3] 209-230-8 [4] 209-280-0 [5] 209-643-3 [6] 209-680-5 [7] 209-730-6 [8] 210-529-0 [9] 250-610-8 [10]	142-82-5 [1] 108-08-7 [2] 464-06-2 [3] 562-49-2 [4] 565-59-3 [5] 589-34-4 [6] 590-35-2 [7] 591-76-4 [8] 617-78-7 [9] 31394-54-4 [10]								
44		octane; n-octane; [1] 2,2,4-trimethylpentane; [2] 2,3,3-trimethylpentane; [3] 3,3-dimethylhexane; [4] 2,2,3-trimethylpentane; [5] 2,3,4-trimethylpentane; [6] 3,4-dimethylhexane; [7] 2,3-dimethylhexane; [8] 2,4-dimethylhexane; [9] 4-methylheptane; [10] 3-methylheptane; [11] 2,2-dimethylhexane; [12] 2,5-dimethylhexane; [13] 2-methylheptane; [14] 2,2,3,3-tetramethylbutane; [15] 3-ethyl-2-methylpentane; [16] 3-ethylhexane; [17] 3-ethyl-3-methylpentane; [18] isooctane; [19]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-009-00-8	203-892-1 [1] 208-759-1 [2] 209-207-2 [3] 209-243-9 [4] 209-266-4 [5] 209-292-6 [6] 209-504-7 [7] 209-547-1 [8] 209-649-6 [9] 209-650-1 [10] 209-660-6 [11] 209-689-4 [12] 209-745-8 [13] 209-747-9 [14] 209-855-6 [15] 210-187-2 [16] 210-621-0 [17] 213-923-0 [18] 247-861-0 [19]	111-65-9 [1] 540-84-1 [2] 560-21-4 [3] 563-16-6 [4] 564-02-3 [5] 565-75-3 [6] 583-48-2 [7] 584-94-1 [8] 589-43-5 [9] 589-53-7 [10] 589-81-1 [11] 590-73-8 [12] 592-13-2 [13] 592-27-8 [14] 594-82-1 [15] 609-26-7 [16] 619-99-8 [17] 1067-08-9 [18] 26635-64-3 [19]								
										Total:	0.232 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non GB MCL determinands

- **chromium(III) oxide (worst case)** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , STOT RE 2; H373 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 2; H361d , Aquatic Chronic 2; H411

- **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4
Description/Comments:
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

- **salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex**

GB MCL index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
20 Nov 2021 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

- **pH** (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

- **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H330 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315

- **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Aquatic Chronic 2; H411

- **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 2; H351 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Skin Irrit. 2; H315

- **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2; H351

- **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **polychlorobiphenyls; PCB** (EC Number: 215-648-1, CAS Number: 1336-36-3)

GB MCL index number: 602-039-00-4
Description/Comments: Worst Case: IARC considers PCB Group 1; Carcinogenic to humans;

POP specific threshold from ATP1 (Regulation 756/2010/EU) to POPs Regulation (Regulation 850/2004/EC). Where applicable, the calculation method laid down in European standards EN 12766-1 and EN 12766-2 shall be applied.
Additional Hazard Statement(s): Carc. 1A; H350
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

Appendix B: Rationale for selection of metal species

antimony {antimony trioxide}

Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds

beryllium {beryllium oxide}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: most common (non alloy) form, used in ceramics

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass

chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Worst case species based on hazard statements/molecular weight

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected.

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight

manganese {manganese sulphate}

Worst case CLP species based on hazard statements/molecular weight

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight

molybdenum {molybdenum(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2023.111.5569.10274 (22 Apr 2023)
HazWasteOnline Database: 2023.111.5569.10274 (22 Apr 2023)

This classification utilises the following guidance and legislation:
WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
GB MCL List - version 1.1 of 09 June 2021

APPENDIX E
Monitoring Plan

1.0 GENERAL

This monitoring plan is in place to achieve the following goals:

- Characterise the washwater and filtercake
- Build up a picture of variation
- Establish if contaminants are becoming concentrated

Monitoring will be carried out by trained, competent personnel.

2.0 WASHWATER MONITORING

2.1 Sampling Location

Samples of wash water will be taken from the point where it weirs over the lip of the settlement tank.

2.2 Sampling Procedure

Samples will be collected from the sample point by holding a sampling bottle directly under the flow of water. Sample bottles are filled in compliance with the instructions provided by appropriate UKAS accredited laboratory. Any preservatives required for particular samples are pre-filled in the bottle by the laboratory.

Bottle labels are filled in to include the site name, date, monitoring point or location reference. A chain of custody is completed for the sample.

Once collected, samples are placed in a cool box containing freezer blocks to keep them at a consistent temperature. They are then taken to an appropriate UKAS accredited laboratory.

Samples are tracked from site and through the laboratory process using a chain of custody form, this is included when the samples are sent to the laboratory. This typically includes information regarding the sample number, type, date, time of sampling and the analyses to be performed.

2.3 Analytical Parameters

Wash water samples will be analysed for the following suite:

pH
Electrical Conductivity
Dissolved Organic Carbon
Metals (As, Cd, Cu, Cr, Pb, Ni, Sn & Zn)
Total TPH
Total PAHs

3.0 FILTERCAKE MONITORING

3.1 Sampling Location

Samples of filtercake will be taken from below the filter plant housing, where filtercake is dropped and stored.

3.2 Sampling Procedure

Samples will be collected by scooping the filtercake into containers provided by the laboratory.

Samples will be labelled, stored and submitted to an accredited laboratory for testing as described in section 2.2 above.

3.3 Analytical Parameters

Filtercake samples will be analysed for the following suite:

pH
Total Organic Carbon
Metals (As, Cd, Cu, Cr, Pb, Ni, Sn & Zn)
Total TPH
Total PAHs

4.0 SAMPLING FREQUENCY, DATA RECORDING AND REVIEW

It is proposed to take monthly samples for the first six months and then the frequency will be reviewed.

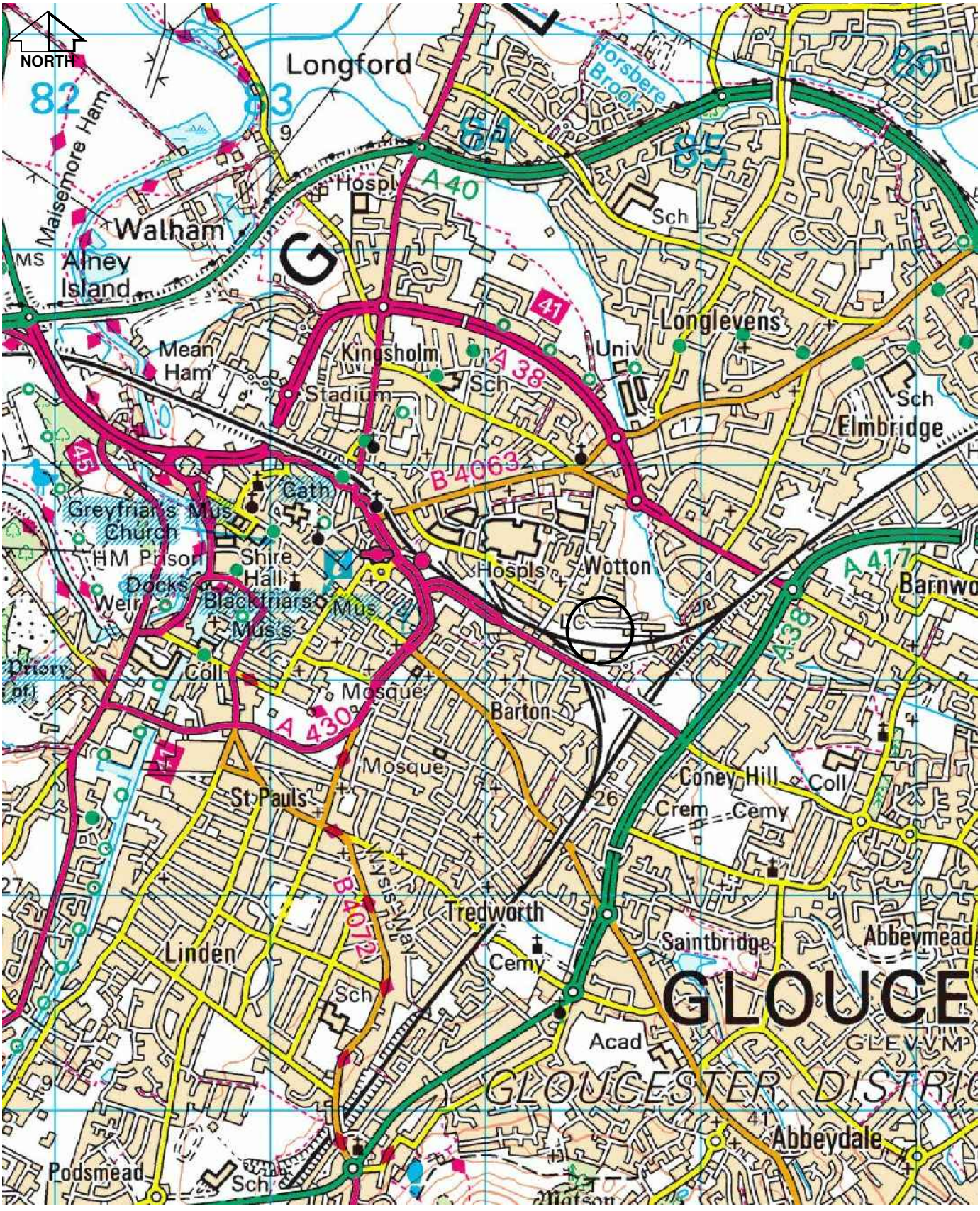
When results are received from the laboratory they will be reviewed by the Technical Advisor, filed securely and logged onto a master spreadsheet.

After six months of data collection a report will be produced on the characterisation and variability of the washwater and filtercake and the monitoring plan will be reviewed.

If contaminants are observed to be building up then an action plan will be proposed to reduce contaminants to an acceptable level.

APPENDIX F

Drawings



THE ARLEY CONSULTING COMPANY LIMITED
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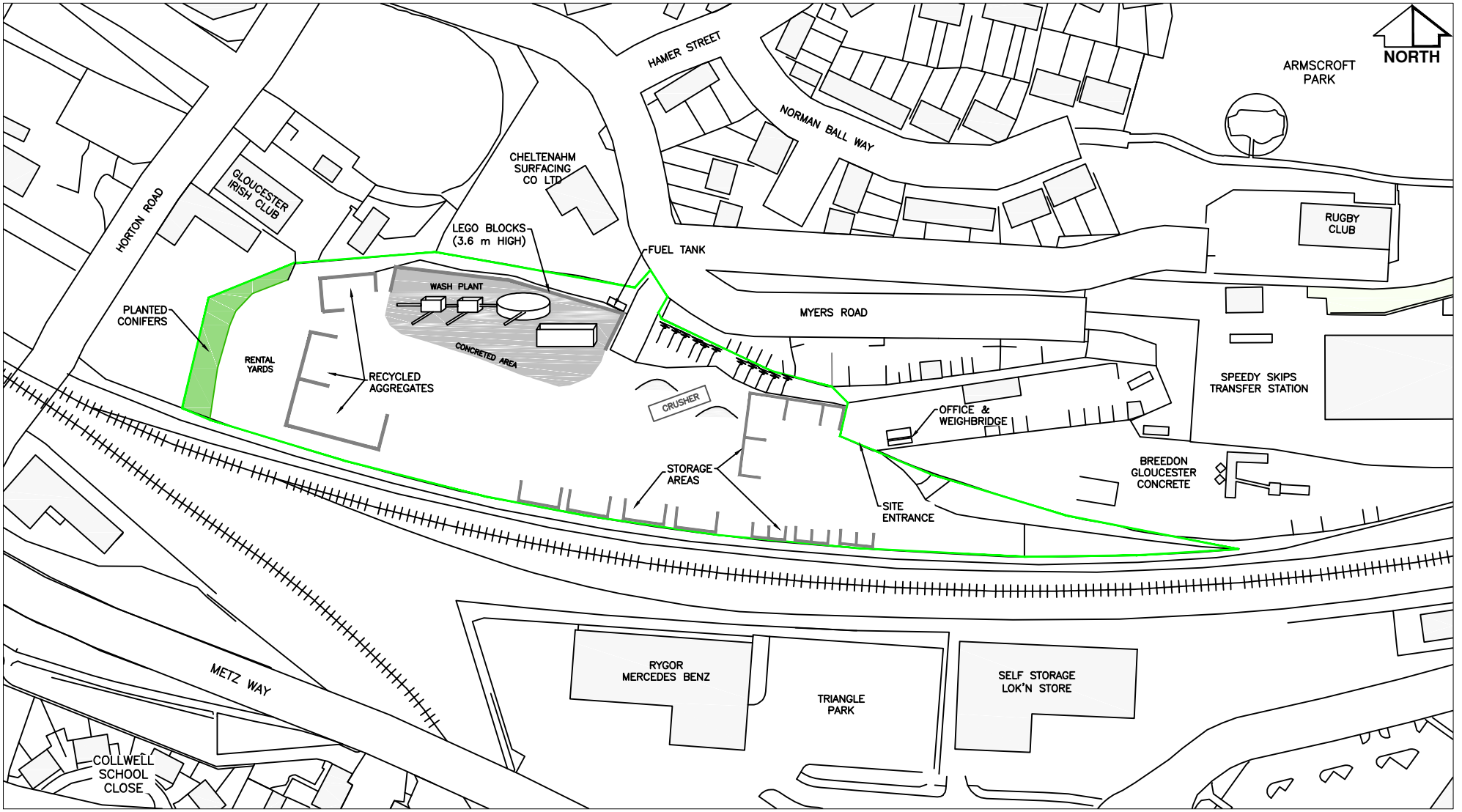
Tel: 01257 278300
Fax: 01257 268063
E-mail: mailbox@taccl.co.uk

CLIENT	ALLSTONE SANDS GRAVELS AGGREGATES TRADING CO
JOB TITLE.	ALLSTONE AGGREGATE RECYCLING FACILITY
DRAWING TITLE.	SITE LOCATION PLAN

DRAWN BY.	APPROVED BY.	DATE.	SCALE.	DRAWING No.
M.Y.B	C.G	26/06/2023	1:50,000	23028/01



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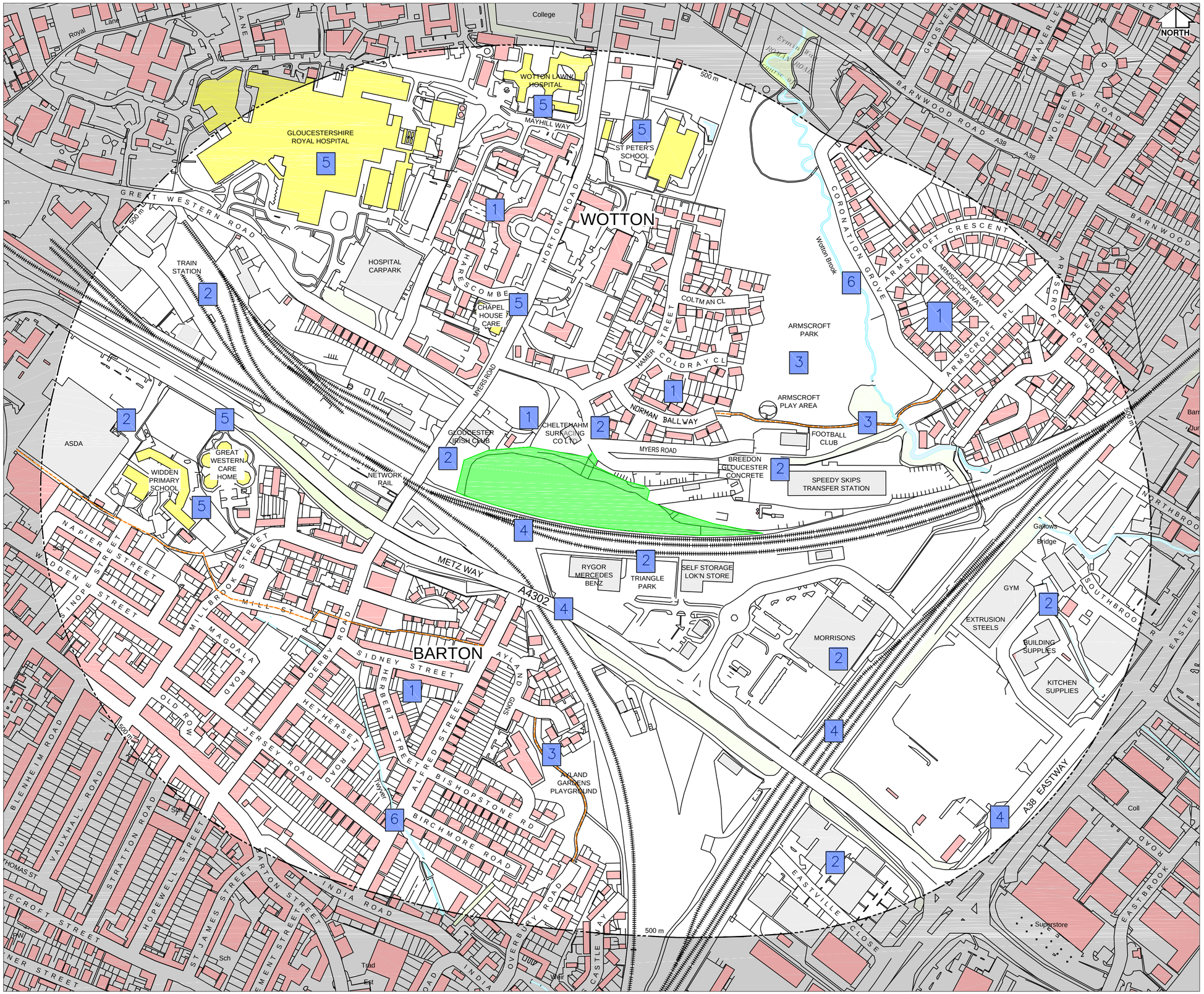
CLIENT	ALLSTONE SANDS GRAVELS AGGREGATES TRADING CO LTD
JOB TITLE.	ALLSTONE AGGREGATE RECYCLING FACILITY MYERS ROAD, GLOUCESTER
DRAWING TITLE.	SITE LAYOUT PLAN
DRAWN BY.	M.Y.B
APPROVED BY.	C.G
DATE.	05/07/23
SCALE @ A4.	1:2000
DRAWING No.	23028/02



LEGEND

- PERMIT AREA
- RECEPTOR BOUNDARIES
- FOOTPATH
- RESIDENTIAL
- INDUSTRIAL/COMMERCIAL
- SCHOOL/NURSERY/CARE FACILITY
- 1 RECEPTOR REFERENCE (SEE REPORT 23028/1)

PREVAILING WIND DIRECTION (FROM THE WEST)

REV.	DESCRIPTION	DATE	BY

THE ARLEY CONSULTING COMPANY LIMITED

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CLIENT.

ALLSTONE SANDS GRAVELS
AGGREGATES TRADING CO LTD

JOB TITLE.

ALLSTONE AGGREGATE
RECYCLING FACILITY
MYERS ROAD
GLOUCESTER

DRAWING TITLE.

RECEPTORS
WITHIN 500 m

DRAWN BY.	APPROVED BY.	DRAWING No.
M.Y.B	C.G	23028/03
DATE. 05/07/2023	SCALE @ A2. 1:4000	

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