

Mold Wastewater Treatment Works

Groundwater Abstraction Transfer License

Hydrogeological Assessment

April 2026

Project Information	
Project:	Mold Wastewater Treatment Works
Report Title:	Hydrogeological Assessment
Client:	Eric Wright Water Limited
File Ref:	16011 - Hydrological Assessment-01

Approval Record	
Author:	Aled Williams BSc (Hons) MCIWEM C.WEM

Document History		
Revision	Date	Comment
01	14/04/2026	First issue

The copyright in this document (including its electronic form) shall remain vested in Waterco Limited (Waterco) but the Client shall have a licence to copy and use the document for the purpose for which it was provided. Waterco shall not be liable for the use by any person of the document for any purpose other than that for which the same was provided by Waterco. This document shall not be reproduced in whole or in part or relied upon by third parties for any use whatsoever without the express written authority of Waterco.

Contents

Introduction	1
Scope	1
Development Proposals	1
Ground Conditions	2
Interaction of Pumped Groundwater on Watercourses	3
Rate & Volume of Abstraction.....	3
Water Quality	4
Programme of Works	4
Water Features Survey	5
Effects on Existing Users.....	5
Impact on Fish	6
Conclusions	6

Appendices

Appendix A	Location Plan
Appendix B	Development Proposals
Appendix C	Borehole Records
Appendix D	Soil & Groundwater Sampling Analysis
Appendix E	Chemical Data Sheets
Appendix F	Water Features Survey

Introduction

Waterco has undertaken a Hydrogeological Assessment in support of a groundwater abstraction transfer license application at Mold Wastewater Treatment Works (WwTW), Bromfield Lane, Mold.

The groundwater abstraction transfer license is required in support of improvement works to Mold WwTW, specifically to dewater excavations in order to construct a new Primary Settlement Tank and HYBACS pumping station chamber.

A site location plan is included in Appendix A.

Scope

The scope of this Hydrogeological Assessment is set out below:

- Specify the interaction of pumped groundwater with watercourses.
- Specify the instantaneous rate of abstraction.
- Detail the quality of water to be dewatered.
- Detail the timing of the abstraction.
- Detail the location of discharge and volumes to be discharged.
- Detail the impact of the dewatering on the wider water environment.

Development Proposals

As part of the scheme, a partly below ground Primary Settlement Tank will be constructed. The Settlement tank base will be 4.63m below ground level. The internal diameter of the Settlement tank will be 13.7m.

A new HYBACS pumping station chamber is also proposed. The pump chamber will have an invert level 3.72m below ground level. The pump chamber will be 3m in diameter.

To facilitate construction, dewatering of the excavations will be required. Proposed scheme drawings are included in Appendix B.

The dewatering will be taken in the location of the proposed Primary Settlement Tank and HYBACS pump chamber at grid reference SJ 24644 63223 (the HYBACS pumping station is located immediately east of the proposed Settlement Tank). The method of construction will involve a cofferdam around the area where the Settlement Tank and pump chamber will be constructed. A series of well points will be made around the outside of the cofferdam. This will allow the water table in the centre of the cofferdam to be reduced and construction to be undertaken. The cofferdam and well point installation will also provide cleaner abstracted

water requiring less treatment (sediment removal) prior to discharge to the watercourse within the WwTW site (tributary of the River Alyn).

Ground Conditions

Ground investigations and associated reporting have been undertaken by Geotechnics in January 2026. The Factual Ground Investigation Report (document reference Mold WwTW –PN254788) supports the abstraction licence application. Borehole records together with a borehole location plan are included as Appendix C. Borehole BH1 is located in the position of the proposed Primary Settlement Tank and pump chamber (where dewatering will occur).

The geology at BH1 comprises Made Ground of gravelly sand to 2m below ground level (m.bgl), underlain by Made Ground of sandy gravelly clay from 2m.bgl to 3.7m.bgl. Clay is identified between 3.7m.bgl and 4.8m.bgl and is in turn underlain by gravel between 4.8m.bgl and 7.2m.bgl. Gravelly sand is recorded from 7.2m.bgl to 11m.bgl. Sandy clay is recorded from 11m.bgl to the base of the borehole at 12.5m.bgl.

Groundwater in BH1 was struck at 5m.bgl and rose to 4.2m.bgl in 20 minutes (on the 6th October 2025). A fast groundwater inflow is noted on the BH record. The BH diameter is 0.15m and the rate of groundwater ingress to the BH is estimated as 0.012 litres per second (based on a BH area of 0.018m² and groundwater rise height of 0.8m).

Further groundwater monitoring was undertaken in BH1 with the findings presented in Table 1:

Table 1 - Measured Groundwater Levels

Location	Date	Groundwater Level m bgl	Comments	Ground level at BH (mAOD)	Relative groundwater level (mAOD)
BH1	06 October 2025	At 5.0m.bgl rose to 4.2m.bgl after 20 minutes.	Within Soft organic CLAY	101.56	97.36
	28 October 2025	3.85	Within Made Ground	101.56	97.71
	27 November 2025	3.50	Within Made Ground	101.56	98.06

Table 2 shows the estimated formation levels relative to the recorded groundwater level.

Table 2 - Estimated Formation Levels Relative to Recorded Groundwater Level

Location	Estimated formation of structure (mAOD)	Relative BH	Distance below groundwater level (m)
Settlement Tank 3	96.59	1	0.77 to 1.47
HYBACS Pumping Station	97.10	1	0.26 to 0.89

Interaction of Pumped Groundwater on Watercourses

Discharge of the abstracted groundwater (following treatment for sediment removal) will be made direct to the watercourse located on the eastern boundary of the WwTW (within Welsh Water ownership). The grid reference at the outfall point is SJ 24671 63234. The discharge location is shown on the Location Plan in Appendix A. Given the elevation of the site (+101m AOD), the water will not be brackish. Abstraction is proposed from 2no. adjacent excavations, however a single point of discharge is proposed.

The Ground Investigation Report (document reference Mold WwTW – PN254788) includes soil and groundwater contamination sampling for a range of determinands, the results included as Appendix D. No notable ground contamination was recorded. As such, no treatment to the abstracted groundwater (dewatering), other than sediment removal, will be required.

Rate & Volume of Abstraction

Dewatering flow estimates have been based on the size and depth of the excavation, the groundwater depths (detailed in Table 2) and the groundwater inflow rate (0.012 l/s) recorded at BH1 during the ground investigations.

For the proposed Primary Settlement Tank, and based on the volume of the excavation within the groundwater of 20.139m³ (based on a conservative estimate of a 13.7m diameter excavation over a depth of 1.47m (maximum groundwater depth)), the groundwater inflow rate is estimated as 16.7825 l/s. This equates to 60.417m³ per hour) and 1,450.008m³ per day.

For the HYBACS pumping station chamber, and based on the volume of the excavation within the groundwater of 2.67m³ (based on a conservative estimate of a 3m diameter excavation over a depth of 0.89m (maximum groundwater depth)), the groundwater inflow rate is estimated as 2.225 l/s. This equates to 8.01m³ per hour) and 192.24m³ per day.

The dewatering volumes and groundwater inflow rates are high-level estimates only and should be confirmed

by the contractor. The volumes do not take account of the installation of cofferdams which will significantly reduce the groundwater inflow. The dewatering volumes quoted would likely only be realised on initial excavation and prior to cofferdams being installed.

The following abstraction rates and volumes are therefore proposed for the abstraction license:

Abstraction Rate: 47.5 l/s (total estimated inflow of 19.0075 l/s, plus 25% contingency, multiplied by 2 to allow for flexibility in the period of abstraction, for example if a faster rate of abstraction is required following a period of downtime and the excavation is full of groundwater).

Abstraction Volume: 2,060m³ per day (based on the estimated inflow of 19.0075 l/s, plus 25% contingency).

Water Quality

The water abstracted from the excavation will be discharged to a Siltbuster Lamella unit which will remove suspended solids. Multiple Lamella Units will be run in parallel in order to accommodate the estimated flow rates. The water treatment proposals will aim to achieve the following levels of treatment prior to release to a watercourse:

- Total suspended solids 30mg/l - 60mg/l
- pH 6-9

Based on the clay content of the superficial deposits, coagulant and /or flocculant dosing may be required to remove particles from water. The safety data sheets for the coagulants and flocculants (Polyaluminium chloride hydroxide sulphate) are included in Appendix E.

Programme of Works

The construction of the Primary Settlement Tank is due to commence on 18th May 2026 with the work taking until 18th December 2026 (7 months).

The construction of the HYBACS pumping station chamber is due to start on the 27th May 2026 with the work taking until 16th October 2026 (approximately 5 months).

In addition to the Primary Settlement Tank and HYBACS pumping station, additional future works at the WwTW could include a Final Settlement Tank. The rate of groundwater abstraction for the possible Final Settlement Tank would be similar to that of the Primary Settlement Tank, and the assumed programmed duration would be from 02/02/27 – 31/07/27 (5 months). The abstraction license application is therefore proposed until 31st July 2027. It is noted that abstraction will not take place every single day of the year.

Water Features Survey

In accordance with NRW requirements, a water features survey has been undertaken to identify:

- boreholes and wells, even if they are disused or filled in
- springs
- watercourses
- ponds and lakes, even if filled in
- wetland areas
- seepage lagoons and catch-pits
- adits (passages for drainage to or from a mine).

The Water Features Survey has been undertaken using mapping from the Ordnance Survey and British Geological Survey. There is no history of mining in the area (as evidenced on the Mining Remediation Authority Map Viewer). The survey area for a daily volume of abstraction of 2,060m³ is a 1.5km radius from the abstraction point.

Water Feature Survey mapping is included as Appendix F for a conservative 2km radius from the abstraction point. The nearest watercourse is located on the eastern site boundary. The watercourse joins the River Alyn which is located approximately 395m south-east of the site.

The nearest spring source is located approximately 2km north-east of the abstraction point. The nearest water well is located approximately 1.25km north-east of the site. The nearest registered borehole is located approximately 400m west of the abstraction point.

Effects on Existing Users

The effects on existing users are considered to be negligible based on the abstraction occurring at relatively shallow depth and lack of nearby springs or wells (water abstractions). The abstraction will therefore not impact upon the volume of groundwater within the underlying bedrock aquifer.

The watercourse where discharge will be made is located within the site and under the ownership of Welsh Water. Based on the size of the watercourse, it is not used for recreation or fishing and there are no 'existing users'.

Impact on Fish

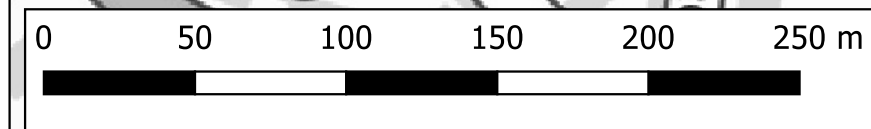
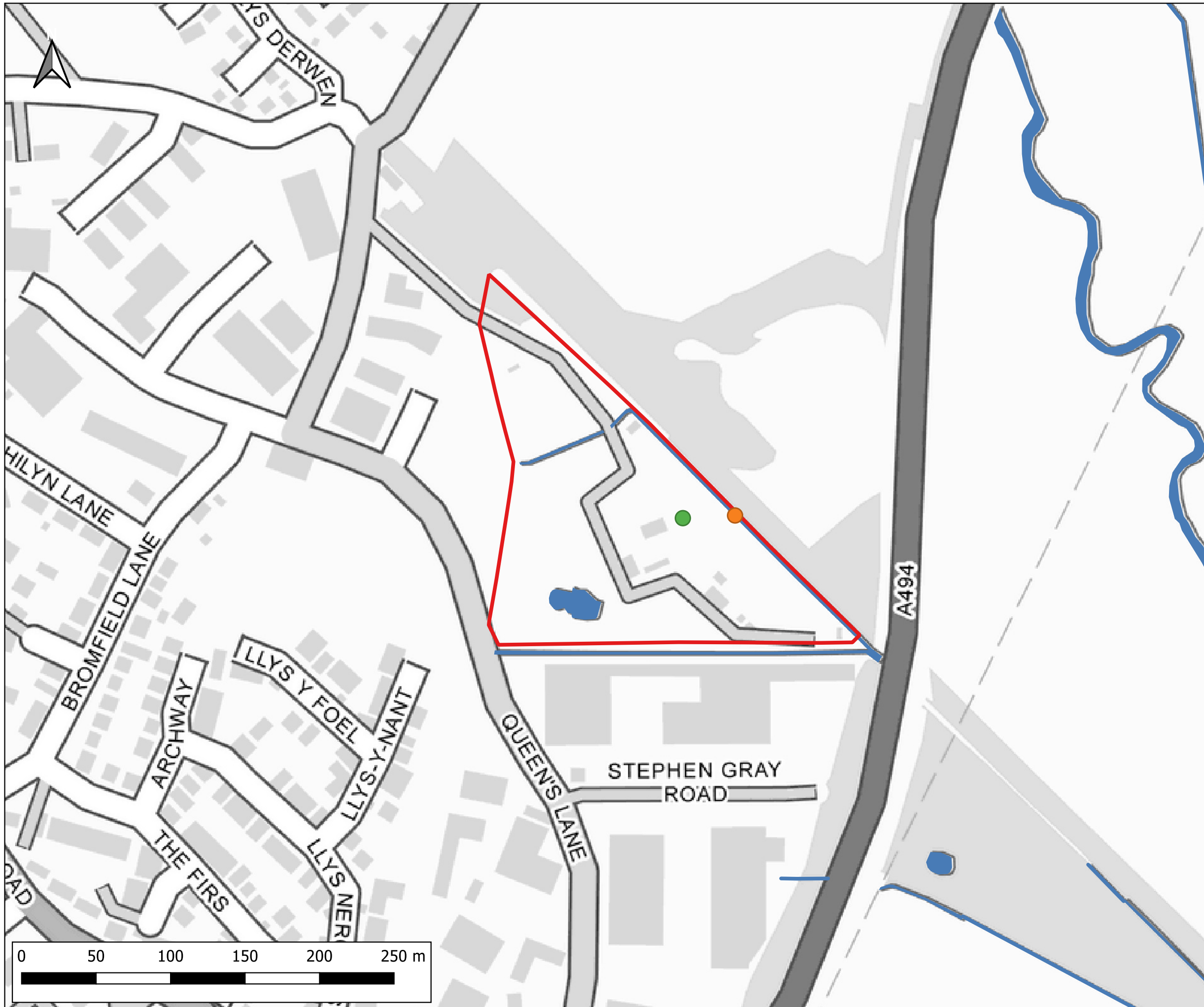
A detailed survey of species has not been undertaken, however it is unlikely that the minor watercourse on the eastern site boundary supports significant fish populations. Nevertheless, to protect fish, a bar screen or mesh with 30mm spacing is proposed on the outlet to the watercourse. The 30mm screen size is selected to protect fish and is taken from NRW's 'Intake screening for fish' guidance.

Conclusions

The proposed abstraction to facilitate construction of the Primary Settlement Tank and HYBACS pumping station chamber is considered to have negligible impact on the local water environment (both groundwater and surface waters).

Abstracted water will be treated (sediment removal) and returned to the watercourse on the eastern boundary of the site. There will be no intervening use of the abstracted water. An abstraction license is only required as the abstraction volume is estimated to be greater than 100m³ per day.

Appendix A Location Plan



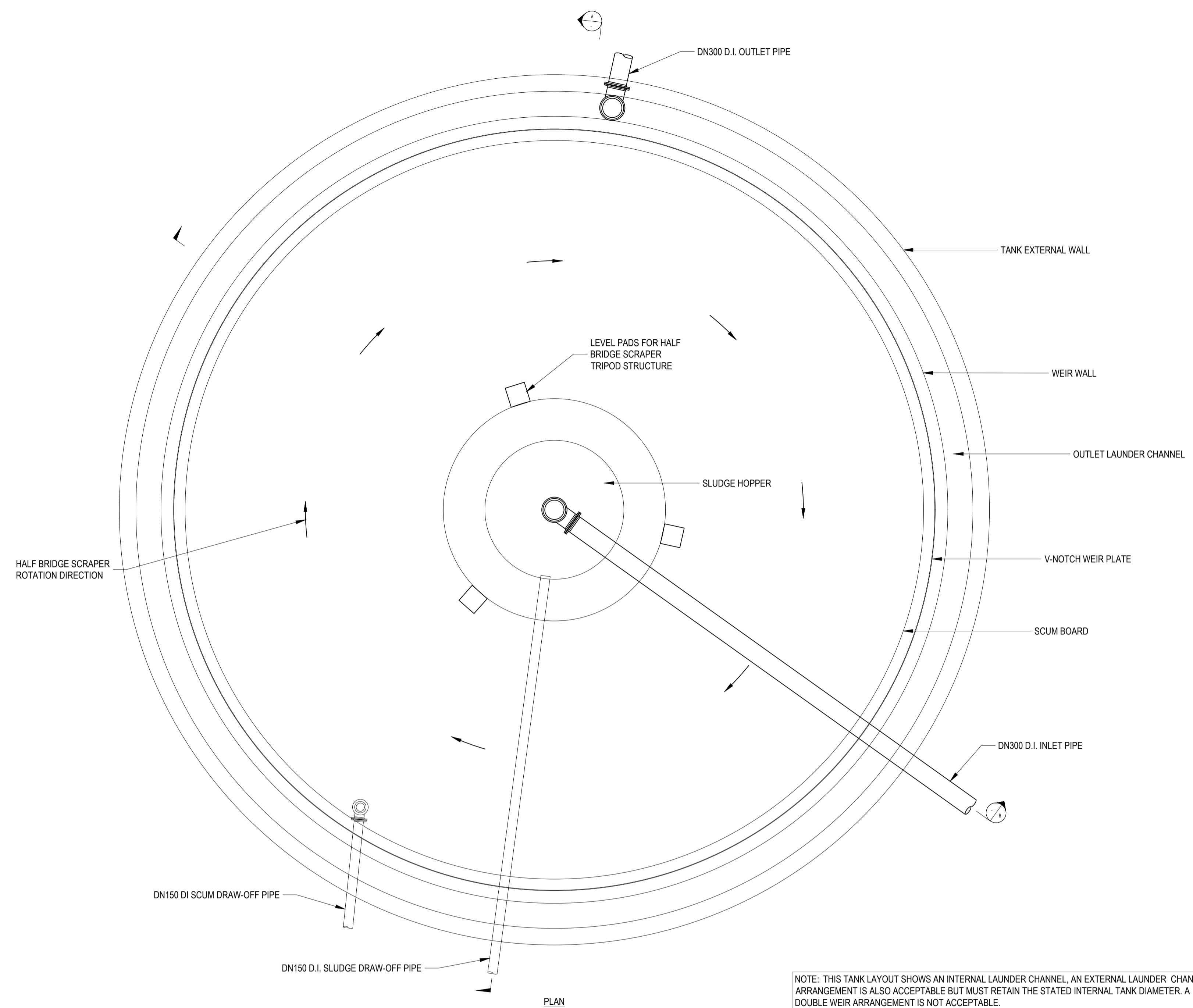
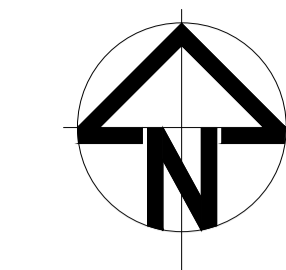
Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise

- LEGEND**
- Site Boundary
 - Watercourses
 - Waterbodies
 - Proposed Abstraction Point
 - Proposed Discharge Location

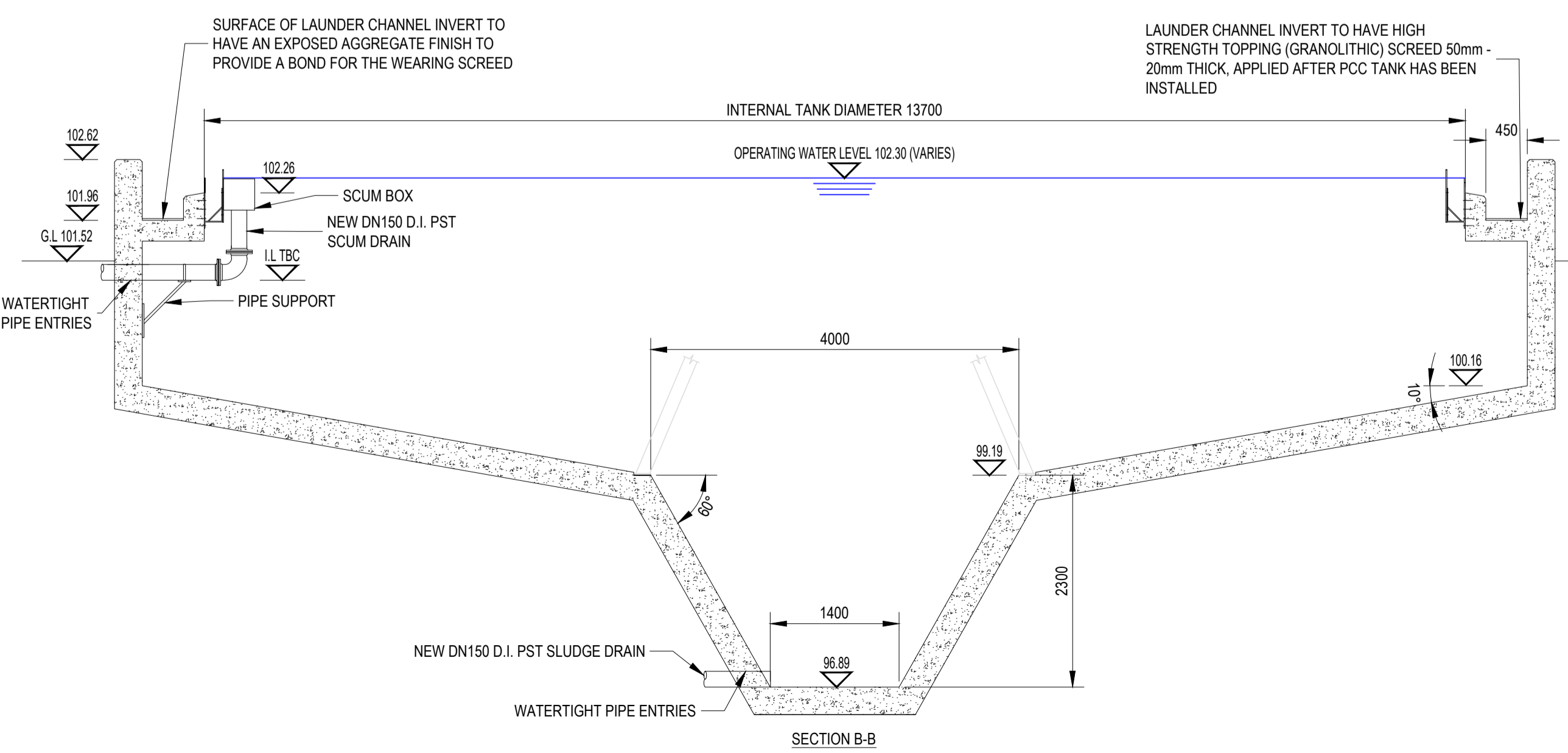


CLIENT:			
Eric Wright Water			
 www.waterco.co.uk			
SCHEME:			
Mold WwTW			
PLOT TITLE:			
Location Plan			
PLOT STATUS:		DATE:	
FINAL		09-04-2026	
DRAWN:	CHECKED:	APPROVED:	PLOT SCALE AT A3:
JP	AW	AW	1:2500
PLOT NAME:			REVISION:
16011_Location_Plan			-

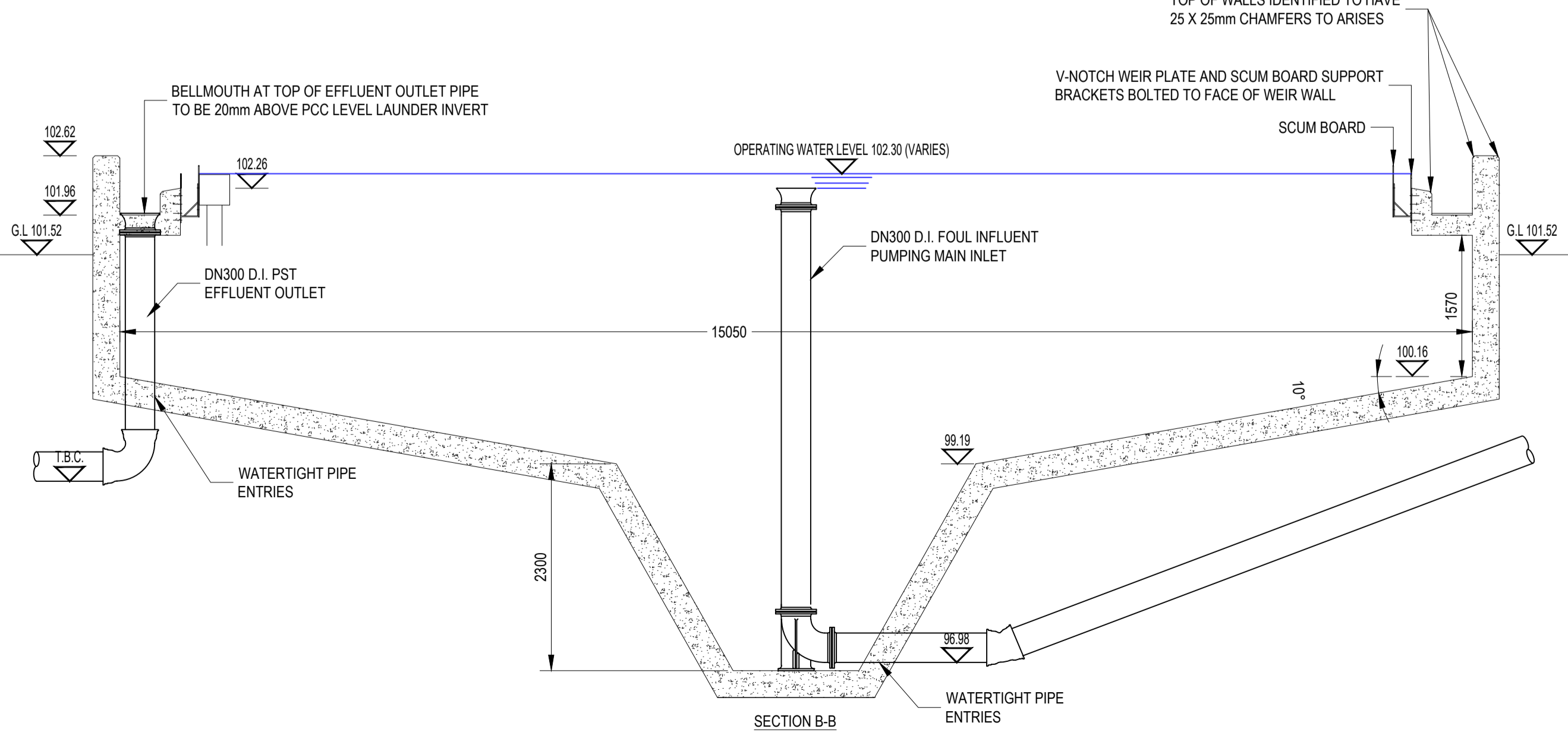
Appendix B Development Proposals



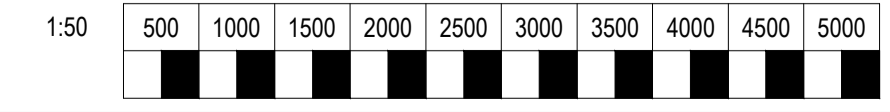
PLAN



SECTION B-B



SECTION B-B



OWNER

A1

Waterco Consultants
Eden Court
11 Lon Parow, Rother LL15 1NJ
Tel: 01752 702220
www.waterco.co.uk

ERIC WRIGHT WATER
Eric Wright Water
Unit 505 Green Place
Bamber Bridge, Preston PR5 6AY
Tel: 01772 698622
Fax: 01772 628811
www.ericwright.co.uk

- NOTES**
- ALL DIMENSIONS IN MILLIMETRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS SHOWN OTHERWISE.
 - DRAWING TO BE READ IN CONJUNCTION WITH SCHEME REGISTER, DOCUMENT REFERENCE B18021-118564-ZZ-RG-ZB-DH8500 TO ESTABLISH ALL SUPPORTING INFORMATION.
 - ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH CESWI 8 [CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY (8TH EDITION)] SUPPLEMENTED BY THE 'DCWW CIVIL ENGINEERING SPECIFICATION CS501A'.
 - IF A PRECAST CONCRETE TANK IS PROPOSED IT SHALL COMPLY WITH THE REQUIREMENTS OF BS EN 1992-3. IF AN INSITU CONCRETE TANK IS PROPOSED IT SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH EUROCODE 2 AND ASSOCIATED UK NATIONAL DESIGN STANDARDS AND ANNEXES.
 - THE CONCRETE STRUCTURE SHALL BE DESIGNED FOR SEVERE EXPOSURE CATEGORY, AND ALSO CONTINUOUS CONTACT WITH SEWAGE DOSED WITH FERRIC SULPHATE.
 - THE COMPLETED TANK SHALL BE WATERTIGHT AND MUST PASS A FULL HYDROSTATIC TEST BEFORE IT IS ACCEPTED.
 - CONCRETE TO BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF BS EN 206:2013.
 - CONCRETE GRADES PROVIDED IN ACCORDANCE WITH THE RECOMMENDATIONS OF BS EN 1:2015+A2:2019.
 - THE BASE OF THE TANK WILL BE CONTINUOUSLY SWEEPED BY SLUDGE SCRAPER BLADES; ANY JOINTS IN THE TANK BASE SHALL BE FLUSH WITH A MAXIMUM ALLOWABLE STEP OF 1mm BETWEEN ADJACENT PANELS.
 - THE SCRAPER BRIDGE DRIVE UNIT WILL RUN ON THE COPING OF THE EXTERNAL WALL OF THE TANK; ANY VERTICAL JOINTS IN THE EXTERNAL WALL SHALL BE FLUSH ACROSS THE COPING, WITH A MAXIMUM ALLOWABLE STEP OF 1mm BETWEEN ADJACENT PANELS.
 - MAXIMUM ALLOWABLE TOLERANCE ON DIMENSIONS AND LEVELS IS +/- 5mm.
 - WEIR PLATES, SCUM BOARDS, SCRAPER BRIDGE TRIPOD AND PIPEWORK TO BE SUPPLIED AND INSTALLED BY OTHERS.
 - SURFACE FINISHES TO COMPLY WITH CESWI 8TH EDITION. HORIZONTAL SURFACES OF STRUCTURAL CONCRETE TO HAVE STEEL FLOAT FINISH UNLESS NOTED OTHERWISE. VERTICAL SURFACES TO HAVE FAIR FACED FINISH TO BS 8110 UNLESS NOTED OTHERWISE.
 - CONCRETE CONSTRUCTION (WORKMANSHIP AND EXECUTION) SHOULD BE CARRIED OUT IN ACCORDANCE WITH THE RECOMMENDATIONS OF BS EN 13670:2009 EXECUTION OF CONCRETE STRUCTURES.
- STRUCTURAL CONCRETE**
- DESIGNED CONCRETE MIX:
- DESIGN LIFE 100 YEARS
 - DESIGN SULPHATE CLASS DS-3
 - ACEC CLASS AC-3
 - COMPRESSIVE STRENGTH CLASS C35/45
 - EXPOSURE CLASS XC3/4, XF1
 - MAXIMUM WATER TO CEMENT RATIO 0.50
 - MINIMUM CEMENT CONTENT 340kg/m³
 - ALLOWABLE CEMENT COMBINATION TYPES IIB + SR
 - MAXIMUM AGGREGATE SIZE 20mm
 - AGGREGATE TYPE WELL GRADED AND CHEMICALLY UNIFORM
- AGGREGATE MAXIMUM COEFFICIENT OF THERMAL EXPANSION 12x10⁻⁶ /°C
 - COVER TO REINFORCEMENT 60mm
- BENCHING / BLINDING (MASS CONCRETE)**
DESIGNATED CONCRETE MIX (GEN 3).

P01	07/08/25	DRD	FIRST ISSUE	DRD	RT	TM	07/08/25
Rev.	Date.	Drawn.	Description.	Rvd.	Chkd.	Appd.	Date.

Capital Delivery Alliance
Cynghair Cyflawni Cyfalaf

Ty Awen, Spooner Close, Coed Kernew, Newport, NP108FZ

Project Name: MOLD WwTW

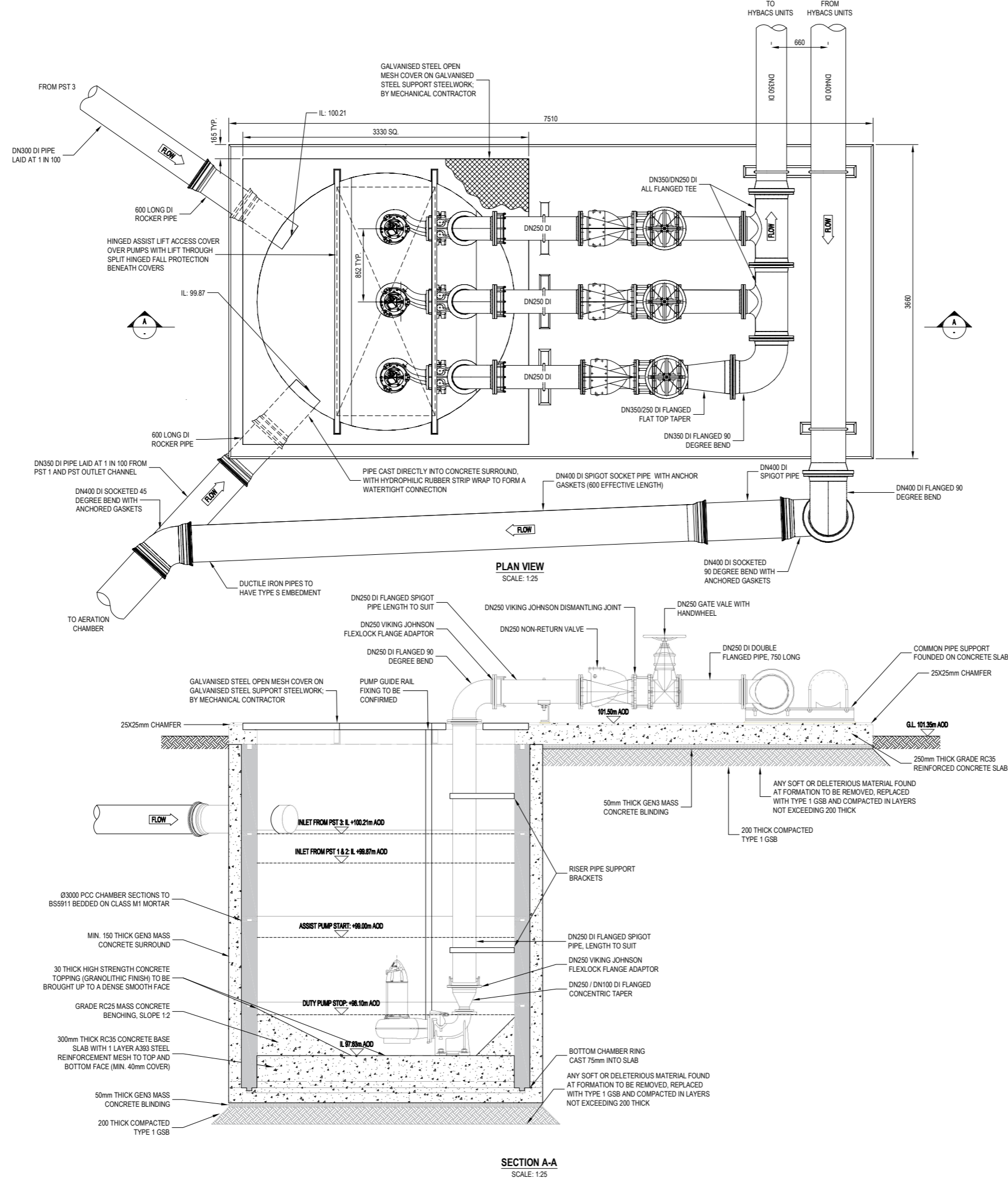
Drawing Title: PROPOSED PRIMARY SETTLEMENT TANK No.3 DEFINITION DRAWING

Suitability: FOR REVIEW AND COMMENT Suitability Code: S3

Originator: DRD Designer: RT Date: 07/08/2025

Internal Project Number: B18021 Scale: 1:50 Rev: P01

Drawing Number: B18021-118564-03-ZZ-DR-CA-CI8001



- NOTES**
- ALL DIMENSIONS IN MILLIMETRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS SHOWN OTHERWISE.
 - DRAWING TO BE READ IN CONJUNCTION WITH SCHEME REGISTER, DOCUMENT REFERENCE B18021-118564-ZZ-ZR-ZB-DH8500 TO ESTABLISH ALL SUPPORTING INFORMATION.
 - ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH CESWI 8 (CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY (8TH EDITION)) SUPPLEMENTED BY THE DCWW CIVIL ENGINEERING SPECIFICATION CSS01A.
 - WET WELL INVERT LEVEL AND PUMP START/STOP LEVELS ARE PROVISIONAL ONLY AND ARE SUBJECT TO CHANGE.
 - PUMPS SHOWN ARE GRUNDFOS SE.100.100.4.52H.N.51D.A.T BASED ON A PRELIMINARY SELECTION TO MEET REQUIRED DUTY.
 - PUMPS, AUTO-COUPLING SYSTEM/DUCKFOOT, GUIDE RAILS & LIFTING CHAINS TO BE SUPPLIED BY PUMP SUPPLIER & INSTALLED BY MECH CONTRACTOR.
 - ALL ABOVE GROUND PIPEWORK TO BE LAGGED FOR FROST PROTECTION IN ACCORDANCE WITH WIMES 8.08 SECTION 14.0.
 - ABOVE GROUND PIPEWORK IS SHOWN AS DUCTILE IRON, HOWEVER, STAINLESS STEEL (SS 01) WIMES 8.08 IS ALSO SUITABLE - SUBJECT TO MECHANICAL PIPEWORK CONTRACTOR INPUT.
 - ALL DUCTILE IRON PIPEWORK AND FITTINGS MUST BE IN ACCORDANCE WITH BS EN 598.
 - DN400 DUCTILE IRON PIPEWORK AND FITTINGS FOR HYBACS OUTLET MUST HAVE ANCHORED GASKETS - SAINT GOBAIN RAPID VI.

P01	17/09/25	DJB	FIRST ISSUE	DJB	RT	CL	29-09-25
-----	----------	-----	-------------	-----	----	----	----------

Rev.	Date	Drawn	Description	Rvd.	Chkd.	Appd.	Date
------	------	-------	-------------	------	-------	-------	------

Capital Delivery Alliance
Cynghair Cyflawni Cyfalaf
Ty Awan, Spooner Close, Coed Karnaw, Newport, NP108FZ

Project Name:
MOLD WwTW

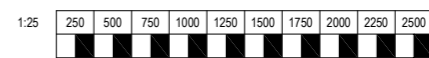
Drawing Title:
HYBACS PUMPING STATION GENERAL ARRANGEMENT

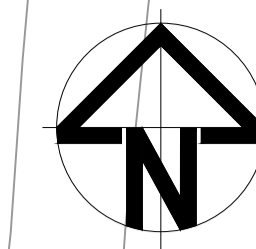
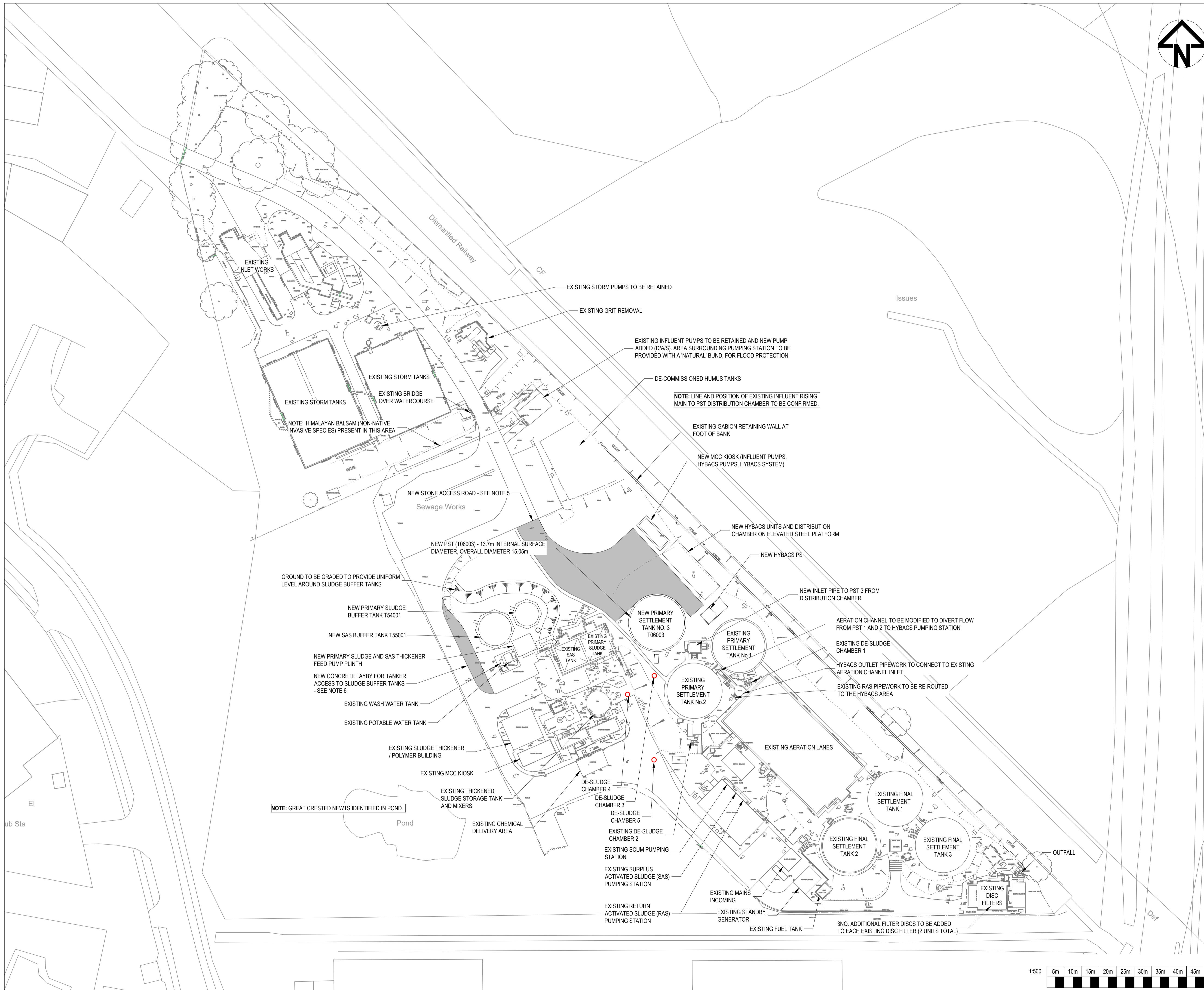
Suitability:
ISSUED FOR INFORMATION Suitability Code: S2

Originator:	DJB	Designer:	RT	Date:	29/09/25
-------------	-----	-----------	----	-------	----------

Internal Project Number:	B18021	Scale:	1:25	Rev.:	P01
--------------------------	--------	--------	------	-------	-----

Drawing Number:
B18021-118564-04-ZZ-DR-CA-CI8002





- NOTES**
1. ALL DIMENSIONS IN MILLIMETRES AND ALL LEVELS IN METRES.
 2. ALL LEVELS RELATE TO O.S (NEWLYN) DATUM, ESTABLISHED USING NETWORK RTK SURVEY PLOTTED ON A PLANE LOCAL GRID, ORIENTATED TO NATIONAL GRID. USING SURVEY CONTROL ESTABLISHED FROM BASELINE THIS DESIGN IS PROPOSED ON THE BASIS OF CLIENT BRIEF, SPECIFICATIONS, BEST PRACTICE AND RISK REDUCTION / ELIMINATION.
 3. THE DESIGNER MUST BE CONSULTED ON ANY PROPOSED CHANGES, BEFORE THEY ARE CONSIDERED FOR IMPLEMENTATION.
 4. CONTRACTOR TO CONFIRM LOCATION OF ALL EXISTING UTILITY SERVICES, BURIED PIPELINES, CABLE DUCTS AND CABLES PRIOR TO COMMENCEMENT OF WORKS AND IMPLEMENT A SAFE METHOD OF WORKING IN ACCORDANCE WITH G66 'AVOIDING DANGER FROM OVERHEAD POWER LINES' AND HSG47 'AVOIDING DANGER FROM UNDERGROUND SERVICES.'
 5. HARDSTANDING AREA BASED ON 6x2 RIGID CHASSIS TRUCK.
 6. HARDSTANDING AREA BASED ON 6000 GALLON ARTICULATED TANKER.

P02	12/11/25	DRD	Revised layout issued for pre-hazop freeze	DRD	RT	TS	12/11/25
P01	15/08/25	DRD	Waterco First Issue	DRD	RT	TM	15/08/25
Rev.	Date	Drawn	Description	Rev.	Chkd	Appd	Date

Capital Delivery Alliance
Cynghair Cyflawni Cyfalaf

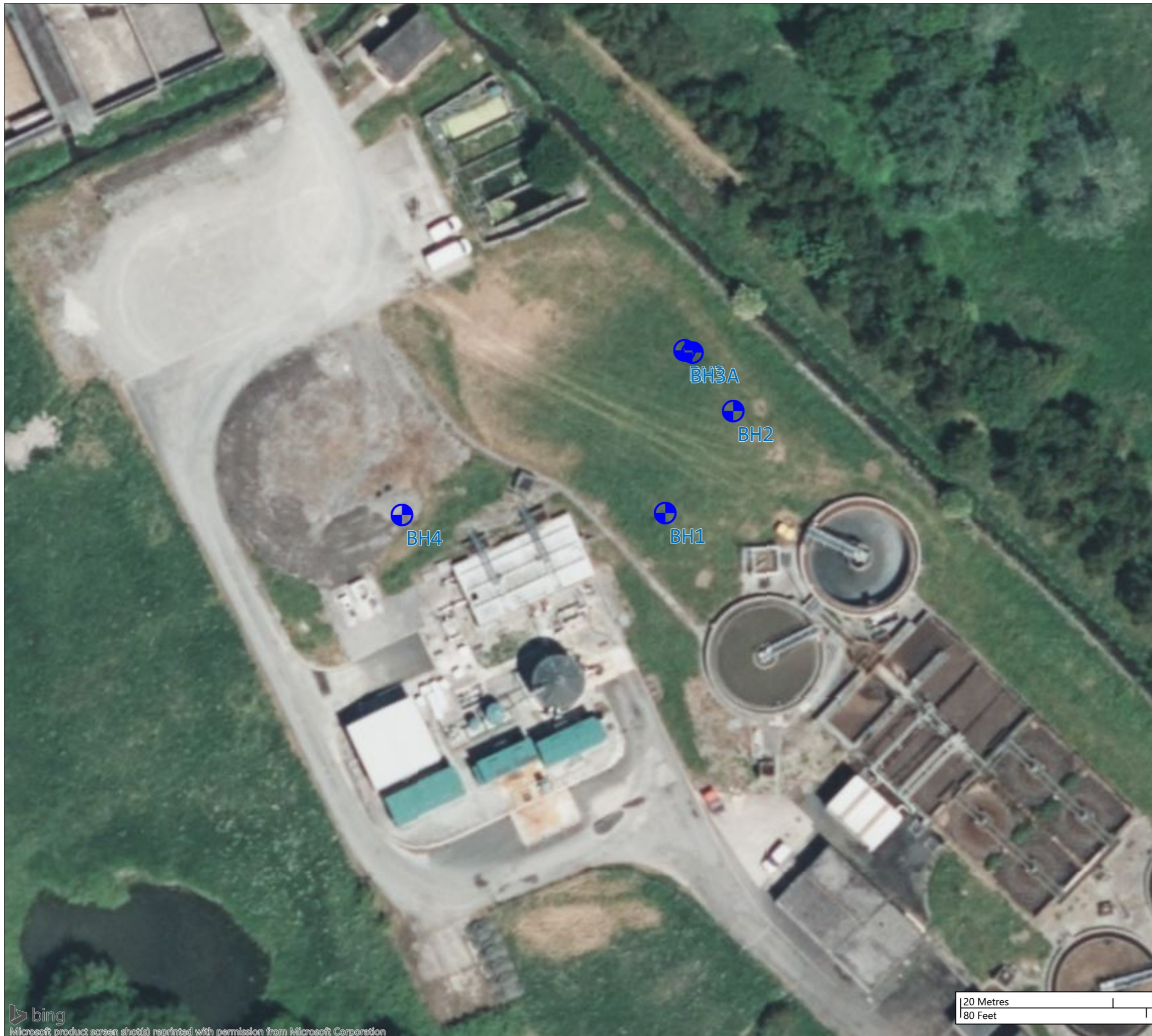
Ty Awen, Spooner Close, Coed Kernew, Newport, NP108FZ

Project Name: **MOLD WwTW**

Drawing Title: **PROPOSED SITE LAYOUT**

Suitability:	For Review and Comment	Suitability Code:	S3
Originator:	DRD	Designer:	RT
Internal Project Number:	B18021	Scale:	1 : 500
Rev.:	P02	Date:	15/08/2025
Drawing Number:	B18021-118564-ZZ-ZZ-DR-CA-CI8004		

Appendix C Borehole Records



Legend

• Locations By Type - CP



Unit 1B Borders Industrial Park
River Lane
Saltney
Chester CH4 8RJ

Phone: 01244 671117
Email: mail@geotechnics.co.uk
www.geotechnics.co.uk

Engineer:
Waterco Limited

Client:
Eric Wright Water Limited

Project:
Mold WwTW

Drawing Title:
Exploratory Hole Location Plan

Scale:
1:500 at A3

Date:
03/11/2025

Project No.:
PN254788


**Exploratory Hole
Location Plan**

BOREHOLE RECORD - Cable Percussion

Project	Mold WwTW	Engineer	Waterco Limited	Project No.	PN254788
Client	Eric Wright Water Limited	National Grid Coordinates	324640.0 E 363221.9 N	Borehole	BH1
				Ground Level	101.56 m OD

Sampling			Properties		Strata		Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Results	SPT N	Description	Depth	Legend	Level (m OD)	
0.00 - 0.50	B				Grass over TOPSOIL: Brown silty fine to coarse sand with many rootlets.	0.10		101.46	
0.20	ES				MADE GROUND: Brown gravelly silty fine to coarse sand with a low angular cobble content of concrete and bricks. Gravel is angular to subangular fine to coarse of various lithologies, concrete and brick fragments.				
0.50	ES								
0.50 - 1.20	B								
1.00	ES								
1.20 - 1.65		(DRY)		S28	Below 1.20m, medium dense.				
1.20 - 1.65	B								
1.20 - 1.65	D								
1.60	D				Between 1.70-1.90m, cobbles.				
2.00 - 2.45		1.70 (DRY)		S5	MADE GROUND: Soft occasionally firm greyish brown slightly sandy gravelly clay with occasional pockets of sand. Gravel is fine to coarse angular of mudstone, concrete and brick fragments.	2.00		99.56	
2.00	ES								
2.00 - 2.45	B								
2.00 - 2.45	D								
2.80	D								
3.00 - 3.45		3.00 (DRY)		S6					
3.00	ES								
3.00 - 3.45	B								
3.00 - 3.45	D								
3.80	D								
4.00	ES				Firm greenish grey slightly sandy slightly organic CLAY with some black organic lenses.	3.70		97.86	
4.00 - 4.45	UT	4.00 (DRY)	32 blows						
4.50	D								
4.80	D								
5.00 - 5.45		4.70 (4.20)		S41	Dense brown very sandy silty angular to subrounded fine to coarse GRAVEL of various lithologies Low subrounded cobble content of sandstone.	4.80		96.76	
5.00	ES								
5.00 - 5.45	B								
5.00 - 5.45	D								
5.80	D				Between 5.60-5.80m, cobbles.				
6.00 - 6.45		6.00 (4.20)		S37					
6.00 - 6.45	B								
6.00 - 6.45	D				Between 6.50-6.90m, cobbles.				
7.00	D								
7.50 - 7.95		7.50 (4.60)		S20	Medium dense brown gravelly fine to coarse SAND. Gravel is fine to medium subangular to subrounded of various lithologies.	7.20		94.36	
7.50	ES								
7.50 - 7.95	B								
7.50 - 7.95	D								
8.50	D								
8.50	ES				Medium dense brown slightly gravelly fine to medium SAND with occasional bands of gravel. Gravel is fine to medium subangular to subrounded of sandstone.	8.30		93.26	
9.00	D								
9.50	D								
10.00 - 10.45		10.00 (5.20)		S19					


Boring				Progress					Groundwater					
Depth	Hole Dia.	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20	0.40	Inspection Pit	SL/JL	0.00		DRY	06/10/25	11:00	5.00	4.70	4.20	20		Fast inflow. Not sealed.
12.50	0.15	Cable Percussion	SL/JL	5.50	4.70	4.20	06/10/25	17:00						
				5.50	5.50	3.90	07/10/25	08:00						
				12.50	12.00	6.50	07/10/25	13:00						

Remarks  Inspection pit hand excavated to 1.20m depth and no services were found.
 ES sample = 1 x 60ml glass vial, 2 x 258ml amber glass jars and 1 x 1 litre plastic tub.
 Chiselling: 1.70-1.90m for 40 minutes, 5.60-5.80m for 35 minutes and 6.50-6.90m for 50 minutes.
 A 50mm standpipe was installed to 12.50m with a geowrapped slotted section from 1.00m to 12.50m with a flush cover installed.
 Backfill details from base of hole: gravel filter up to 1.00m, bentonite seal up to 0.20m, concrete up to ground level.

Logged by LP
 Checked by JK
 Figure Sheet 1 of 2
 20/11/2025

Symbols and abbreviations are explained on the accompanying key sheets.
 All dimensions are in metres.

Logged in accordance with BS5930:2015 + A1:2020



 GEOTECHNICS

BOREHOLE RECORD - Cable Percussion

Project	Mold WwTW	Engineer	Waterco Limited	Project No.	PN254788
Client	Eric Wright Water Limited	National Grid Coordinates	324640.0 E 363221.9 N	Borehole	BH1
				Ground Level	101.56 m OD

Sampling			Properties		Strata		Scale 1:50	
Depth	Sample Type	Depth Cased & (to Water)	Results	SPT N	Description	Depth	Legend	Level (m OD)
10.00 - 10.45	B							
10.00 - 10.45	D							
11.00	D							
11.00	ES				Soft becoming firm thinly laminated brown slightly sandy CLAY with traces of fine gravel. Occasional lenses of silt.	11.00		90.56
11.50	D							
12.00 - 12.45	UT	12.00 (6.50)	57 blows					
12.50	D				End of Borehole	12.50		89.06

Boring				Progress					Groundwater					
Depth	Hole Dia.	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater

Remarks  Symbols and abbreviations are explained on the accompanying key sheets. All dimensions are in metres.	Logged by LP Checked by JK Figure Sheet 2 of 2 20/11/2025
	Logged in accordance with BS5930:2015 + A1:2020
	

Appendix D Soil & Groundwater Sampling Analysis

Certificate of Analysis

Certificate Number 25-25083

Issued: 11-Nov-25

Client Geotechnics LTD
The Geotechnical Centre
Unit 1B Borders Ind. Park
River Lane
Saltney
Chester
CH4 8RJ

Our Reference 25-25083

Client Reference ~ PN254788

Order No ~ ON45448

Contract Title ~ Mold Wwtw

Description 3 Water No Information Supplied samples.

Date Received 30-Oct-25

Date Started 30-Oct-25

Date Completed 11-Nov-25

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

A handwritten signature in black ink, appearing to read "R Irfan".

Reyhan Irfan
Operations Manager

Sample Deviations present. See Deviation Table Section for details.

Summary of Chemical Analysis

Water Samples

Our Ref 25-25083

Client Ref ~ PN254788

Contract Title ~ Mold Wwtw

Lab No	2590853	2590854	2590855
Sample ID ~	BH1	BH2	BH4
Depth ~			
Other ID ~			
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	28/10/2025	28/10/2025	28/10/2025
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
Subcon to Latis	\$	0		Y	Y	Y
Metals						
Aluminium, Dissolved	DETSC 2306	10	ug/l	30	26	52
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	6.3	23	3.5
Barium, Dissolved	DETSC 2306	0.26	ug/l	320	550	230
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1	< 0.1	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	88.1	126.5	91.0
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	< 0.03	0.06
Calcium, Dissolved	DETSC 2306	0.09	mg/l	160	370	130
Chromium, Dissolved	DETSC 2306	0.25	ug/l	0.58	1.1	0.60
Copper, Dissolved	DETSC 2306	0.4	ug/l	0.7	0.8	1.0
Iron, Dissolved	DETSC 2306	5.5	ug/l	2400	4200	99
Lead, Dissolved	DETSC 2306	0.09	ug/l	5.4	13	1.3
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	11	21	8.9
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01	< 0.01	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	2.9	5.0	5.2
Nickel, Dissolved	DETSC 2306	0.5	ug/l	4.1	7.6	5.8
Potassium, Dissolved	DETSC 2306	0.08	mg/l	13	14	9.6
Selenium, Dissolved	DETSC 2306	0.25	ug/l	0.33	1.0	1.0
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	< 0.6	2.6	1.3
Zinc, Dissolved	DETSC 2306	1.3	ug/l	93	130	160
Inorganics						
Conductivity (25oC)	DETSC 2009	1	uS/cm	935	1400	1260
pH	DETSC 2008		pH	6.8	7.0	7.2
Biochemical Oxygen Demand, Total	DETSC 2031	1	mg/l	1.9	10	8.9
Chemical Oxygen Demand, Total	DETSC 2032	10	mg/l	160	110	66
Cyanide, Total	DETSC 2130	40	ug/l	< 40	< 40	< 40
Cyanide, Free	DETSC 2130	20	ug/l	< 20	< 20	< 20
Thiocyanate	DETSC 2130	20	ug/l	< 20	< 20	< 20
Dissolved, Oxygen	DETSC 2048*	0.1	mg/l	6.6	6.2	10.9
Dissolved Organic Carbon	DETSC 2085	2	mg/l	13	71	10
Total Hardness as CaCO3	DETSC 2303	0.1	mg/l	445	1010	354
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	2.9	1.6	0.31
Nitrogen, Total	DETSC 2085*	0.5	mg/l	4.8	4.4	1.3
Sulphate as SO4	DETSC 2055	0.1	mg/l	32	21	210
Sulphide	DETSC 2208	10	ug/l	15	18	< 10
Sulphur as S, Total	DETSC 2320*	10	mg/l	15	< 10	37
Petroleum Hydrocarbons						
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0

Summary of Chemical Analysis

Water Samples

Our Ref 25-25083

Client Ref ~ PN254788

Contract Title ~ Mold Wwtw

Lab No	2590853	2590854	2590855
Sample ID ~	BH1	BH2	BH4
Depth ~			
Other ID ~			
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	28/10/2025	28/10/2025	28/10/2025
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	12	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	190	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	450	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10	660	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	ug/l	< 10	660	< 10
C24-C40 Lube Oil Range Organics (LORO)	DETSC 3311	10	ug/l	14	18	19
PAHs						
Naphthalene	DETSC 3304	0.05	ug/l	0.83	< 0.05	0.26
Acenaphthylene	DETSC 3304	0.01	ug/l	0.33	< 0.01	0.09
Acenaphthene	DETSC 3304	0.01	ug/l	0.93	< 0.01	0.06
Fluorene	DETSC 3304	0.01	ug/l	0.68	< 0.01	0.07
Phenanthrene	DETSC 3304	0.01	ug/l	4.2	0.03	0.52
Anthracene	DETSC 3304	0.01	ug/l	0.99	0.01	0.10
Fluoranthene	DETSC 3304	0.01	ug/l	5.5	0.08	1.2
Pyrene	DETSC 3304	0.01	ug/l	4.8	0.07	1.2
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	3.0	0.05	0.78
Chrysene	DETSC 3304	0.01	ug/l	1.8	0.03	0.53
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	4.2	0.05	1.1
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	1.8	0.02	0.40
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	4.1	0.03	0.86
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	3.1	0.04	0.61
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	0.36	< 0.01	0.12
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	3.0	0.04	0.65
PAH Total	DETSC 3304	0.2	ug/l	39	0.45	8.5
Phenols						
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100	< 100
Subcontracted Analysis						
Clostridia	\$*	0	fu/100ml	560	780	70
E. coli	\$*	0	n/100ml	1300	105	116
Enterococci	\$*	0	fu/100ml	>10000	700	1600
Salmonella	\$*	0	cfu/ml	N.D	N.D	N.D
Total coliforms	\$*	0	fu/100ml	>241960	>241960	198630
Faecal Streptococci	\$*	0	fu/100ml	> 10000	700	1600

Summary of Chemical Analysis

Water Samples

Our Ref 25-25083

Client Ref ~ PN254788

Contract Title ~ Mold Wwtw

Lab No	2590853	2590854	2590855
Sample ID ~	BH1	BH2	BH4
Depth ~			
Other ID ~			
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	28/10/2025	28/10/2025	28/10/2025
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
VOCs						
Dichlorodifluoromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Chloromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Vinyl Chloride	DETSC 3432	1	ug/l	< 1	< 1	< 1
Bromomethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Chloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Trichlorofluoromethane	DETSC 3432*	1	ug/l	< 1	< 1	< 1
1,1-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Methylene Chloride	DETSC 3432*	27	ug/l	< 27	< 27	< 27
Trans-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,1-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Cis-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1
2,2-dichloropropane	DETSC 3432*	2	ug/l	< 2	< 2	< 2
Bromochloromethane	DETSC 3432	4	ug/l	< 4	< 4	< 4
Chloroform	DETSC 3432	1	ug/l	2	< 1	3
1,1,1-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,1-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Carbon tetrachloride	DETSC 3432	1	ug/l	< 1	< 1	< 1
Benzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Trichloroethylene	DETSC 3432*	1	ug/l	< 1	< 1	< 1
1,2-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Dibromomethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Bromodichloromethane	DETSC 3432	4	ug/l	< 4	< 4	< 4
cis-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Toluene	DETSC 3432	1	ug/l	< 1	< 1	< 1
trans-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,1,2-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Tetrachloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,3-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Dibromochloromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2-dibromoethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Chlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,1,1,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Ethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
m+p-Xylene	DETSC 3432	2	ug/l	< 2	< 2	< 2
o-Xylene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Styrene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Bromoform	DETSC 3432	1	ug/l	< 1	< 1	< 1
Isopropylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,1,2,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Bromobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1

Summary of Chemical Analysis

Water Samples

Our Ref 25-25083

Client Ref ~ PN254788

Contract Title ~ Mold Wwtw

Lab No	2590853	2590854	2590855
Sample ID ~	BH1	BH2	BH4
Depth ~			
Other ID ~			
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	28/10/2025	28/10/2025	28/10/2025
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
1,2,3-trichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1
n-propylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
2-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,3,5-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
4-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Tert-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2,4-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
sec-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
p-isopropyltoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,3-dichlorobenzene	DETSC 3432	2	ug/l	< 2	< 2	< 2
1,4-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
n-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2-dibromo-3-chloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2,4-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Hexachlorobutadiene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2,3-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
MTBE	DETSC 3432*	1	ug/l	< 1	< 1	< 1
SVOCs						
Phenol	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
Aniline	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
2-Chlorophenol	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
Benzyl Alcohol	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
2-Methylphenol	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
Bis(2-chloroisopropyl)ether	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
3&4-Methylphenol	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
Bis(2-chloroethoxy)methane	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
2,4-Dimethylphenol	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
2,4-Dichlorophenol	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
1,2,4-Trichlorobenzene	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
4-Chloro-3-methylphenol	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
2-Methylnaphthalene	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
Hexachlorocyclopentadiene	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
2,4,6-Trichlorophenol	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
2,4,5-Trichlorophenol	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
2-Chloronaphthalene	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
2-Nitroaniline	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
2,4-Dinitrotoluene	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
3-Nitroaniline	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
4-Nitrophenol	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
Dibenzofuran	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
2,6-Dinitrotoluene	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0

Summary of Chemical Analysis

Water Samples

Our Ref 25-25083

Client Ref ~ PN254788

Contract Title ~ Mold Wwtw

Lab No	2590853	2590854	2590855
Sample ID ~	BH1	BH2	BH4
Depth ~			
Other ID ~			
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	28/10/2025	28/10/2025	28/10/2025
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
2,3,4,6-Tetrachlorophenol	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
Diethylphthalate	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
4-Chlorophenylphenylether	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
4-Nitroaniline	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
Diphenylamine	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
4-Bromophenylphenylether	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
Hexachlorobenzene	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
Bis(2-ethylhexyl)ester	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
Pentachlorophenol	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
Di-n-butylphthalate	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
Butylbenzylphthalate	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
Bis(2-ethylhexyl)phthalate	DETSC 3434*	1	ug/l	5.1	< 5.0	< 5.0
Di-n-octylphthalate	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
1,4-Dinitrobenzene	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
Dimethylphthalate	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
1,3-Dinitrobenzene	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
2,3,5,6-Tetrachlorophenol	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
Azobenzene	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
Carbazole	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0
1-Methylnaphthalene	DETSC 3434*	1	ug/l	< 5.0	< 5.0	< 5.0

Information in Support of the Analytical Results

Our Ref 25-25083
 Client Ref ~ PN254788
 Contract ~ Mold Wwtw

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date Sampled ~	Containers Received	Holding time exceeded for tests	Incorrect container for tests
2590853	BH1 WATER UNKNOWN	28/10/25	GB 1L x2, GV x2, PB 1L x2	pH/Cond (1 days)	
2590854	BH2 WATER UNKNOWN	28/10/25	GB 1L x2, GV x2, PB 1L	pH/Cond (1 days)	
2590855	BH4 WATER UNKNOWN	28/10/25	GB 1L x2, GV x2, PB 1L x2	pH/Cond (1 days)	

Key: G-Glass P-Plastic B-Bottle V-Vial

Normec DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
 Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Key:

- ~ Sample details are provided by the client and can affect the validity of the results
- * -not accredited.
- # -MCERTS (accreditation only applies if report carries the MCERTS logo).
- \$ -subcontracted.
- n/s -not supplied.
- I/S -insufficient sample.
- U/S -unsuitable sample.
- t/f -to follow.
- nd -not detected.

End of Report Ver 25.10.03

Certificate of Analysis

Certificate Number 25-27853

Issued: 17-Dec-25

Client Geotechnics LTD
The Geotechnical Centre
Unit 1B Borders Ind. Park
River Lane
Saltney
Chester
CH4 8RJ

Our Reference 25-27853

Client Reference ~ PN264788

Order No ~ ON45448

Contract Title ~ Mold WwTW

Description 3 Water No Information Supplied samples.

Date Received 01-Dec-25

Date Started 01-Dec-25

Date Completed 17-Dec-25

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

A handwritten signature in black ink, appearing to read "R Irfan".

Reyhan Irfan
Operations Manager

Sample Deviations present. See Deviation Table Section for details.

Summary of Chemical Analysis

Water Samples

Our Ref 25-27853

Client Ref ~ PN264788

Contract Title ~ Mold WWTW

Lab No	2607284	2607285	2607286
Sample ID ~	BH1	BH2	BH4
Depth ~			
Other ID ~			
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	27/11/2025	27/11/2025	27/11/2025
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
Subcon to Latis	\$	0		Y	Y	Y
Metals						
Aluminium, Dissolved	DETSC 2306	10	ug/l	13	13	87
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	1.9	11	1.9
Barium, Dissolved	DETSC 2306	0.26	ug/l	370	450	320
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1	< 0.1	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	133.8	116.6	94.0
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	0.03	< 0.03
Calcium, Dissolved	DETSC 2306	0.09	mg/l	150	250	140
Chromium, Dissolved	DETSC 2306	0.25	ug/l	0.36	0.63	0.97
Copper, Dissolved	DETSC 2306	0.4	ug/l	0.9	1.8	1.0
Iron, Dissolved	DETSC 2306	5.5	ug/l	35	2400	350
Lead, Dissolved	DETSC 2306	0.09	ug/l	1.5	3.2	2.8
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	11	15	9.8
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01	< 0.01	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	2.8	3.3	3.9
Nickel, Dissolved	DETSC 2306	0.5	ug/l	4.8	6.7	10
Potassium, Dissolved	DETSC 2306	0.08	mg/l	11	13	11
Selenium, Dissolved	DETSC 2306	0.25	ug/l	0.74	1.9	1.0
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	< 0.6	1.4	1.3
Zinc, Dissolved	DETSC 2306	1.3	ug/l	84	120	160
Inorganics						
Conductivity (25oC)	DETSC 2009	1	uS/cm	997	1470	1230
pH	DETSC 2008		pH	7.0	7.0	7.4
Biochemical Oxygen Demand, Total	DETSC 2031	1	mg/l	2.8	3.0	2.6
Chemical Oxygen Demand, Total	DETSC 2032	10	mg/l	53	110	54
Cyanide, Total	DETSC 2130	40	ug/l	< 40	< 40	< 40
Cyanide, Free	DETSC 2130	20	ug/l	< 20	< 20	< 20
Thiocyanate	DETSC 2130	20	ug/l	< 20	< 20	< 20
Dissolved, Oxygen	DETSC 2048*	0.1	mg/l	9.9	10.0	10.4
Dissolved Organic Carbon	DETSC 2085	2	mg/l	9.4	37	20
Total Hardness as CaCO3	DETSC 2303	0.1	mg/l	420	683	398
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	4.9	4.3	0.21
Nitrogen, Total	DETSC 2085*	0.5	mg/l	6.4	6.0	1.2
Sulphate as SO4	DETSC 2055	0.1	mg/l	41	160	100
Sulphide	DETSC 2208	10	ug/l	12	16	16
Sulphur as S, Total	DETSC 2320*	10	mg/l	17	63	41
Petroleum Hydrocarbons						
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0

Summary of Chemical Analysis

Water Samples

Our Ref 25-27853

Client Ref ~ PN264788

Contract Title ~ Mold WWTW

Lab No	2607284	2607285	2607286
Sample ID ~	BH1	BH2	BH4
Depth ~			
Other ID ~			
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	27/11/2025	27/11/2025	27/11/2025
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	ug/l	< 10	< 10	< 10
C24-C40 Lube Oil Range Organics (LORO)	DETSC 3311	10	ug/l	290	< 10	< 10
PAHs						
Naphthalene	DETSC 3304	0.05	ug/l	2.1	0.54	< 0.50
Acenaphthylene	DETSC 3304	0.01	ug/l	1.3	0.64	0.21
Acenaphthene	DETSC 3304	0.01	ug/l	1.6	0.24	0.12
Fluorene	DETSC 3304	0.01	ug/l	1.4	0.30	0.16
Phenanthrene	DETSC 3304	0.01	ug/l	6.7	2.2	1.5
Anthracene	DETSC 3304	0.01	ug/l	2.4	0.78	0.35
Fluoranthene	DETSC 3304	0.01	ug/l	16	4.7	3.0
Pyrene	DETSC 3304	0.01	ug/l	16	4.3	2.8
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	7.5	3.4	2.0
Chrysene	DETSC 3304	0.01	ug/l	5.9	2.5	1.5
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	15	5.3	2.9
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	4.8	2.2	1.1
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	11	4.8	2.3
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	7.7	3.9	2.1
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	1.6	0.78	0.35
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	6.7	3.2	1.7
PAH Total	DETSC 3304	0.2	ug/l	110	40	22
Phenols						
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100	< 100
Subcontracted Analysis						
Clostridia	\$*	0	fu/100ml	52	26	40
E. coli	\$*	0	n/100ml	3	9	50
Enterococci	\$*	0	fu/100ml	0	22	50
Salmonella	\$*	0	cfu/ml	N.D	N.D	N.D
Total coliforms	\$*	0	fu/100ml	3790	3090	11870
Faecal Streptococci	\$*	0	fu/100ml	3.00	27.0	1500

Summary of Chemical Analysis

Water Samples

Our Ref 25-27853

Client Ref ~ PN264788

Contract Title ~ Mold WWTW

Lab No	2607284	2607285	2607286
Sample ID ~	BH1	BH2	BH4
Depth ~			
Other ID ~			
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	27/11/2025	27/11/2025	27/11/2025
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
VOCs						
Dichlorodifluoromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Chloromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Vinyl Chloride	DETSC 3432	1	ug/l	< 1	< 1	< 1
Bromomethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Chloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Trichlorofluoromethane	DETSC 3432*	1	ug/l	< 1	< 1	< 1
1,1-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Methylene Chloride	DETSC 3432*	27	ug/l	< 27	< 27	< 27
Trans-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,1-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Cis-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1
2,2-dichloropropane	DETSC 3432*	2	ug/l	< 2	< 2	< 2
Bromochloromethane	DETSC 3432	4	ug/l	< 4	< 4	< 4
Chloroform	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,1,1-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,1-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Carbon tetrachloride	DETSC 3432	1	ug/l	< 1	< 1	< 1
Benzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Trichloroethylene	DETSC 3432*	1	ug/l	< 1	< 1	< 1
1,2-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Dibromomethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Bromodichloromethane	DETSC 3432	4	ug/l	< 4	< 4	< 4
cis-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Toluene	DETSC 3432	1	ug/l	< 1	< 1	< 1
trans-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,1,2-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Tetrachloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,3-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Dibromochloromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2-dibromoethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Chlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,1,1,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Ethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
m+p-Xylene	DETSC 3432	2	ug/l	< 2	< 2	< 2
o-Xylene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Styrene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Bromoform	DETSC 3432	1	ug/l	< 1	< 1	< 1
Isopropylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,1,2,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Bromobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1

Summary of Chemical Analysis

Water Samples

Our Ref 25-27853

Client Ref ~ PN264788

Contract Title ~ Mold WWTW

Lab No	2607284	2607285	2607286
Sample ID ~	BH1	BH2	BH4
Depth ~			
Other ID ~			
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	27/11/2025	27/11/2025	27/11/2025
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
1,2,3-trichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1
n-propylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
2-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,3,5-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
4-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Tert-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2,4-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
sec-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
p-isopropyltoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,3-dichlorobenzene	DETSC 3432	2	ug/l	< 2	< 2	< 2
1,4-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
n-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2-dibromo-3-chloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2,4-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Hexachlorobutadiene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2,3-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
MTBE	DETSC 3432*	1	ug/l	< 1	< 1	< 1
SVOCs						
Phenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Aniline	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2-Chlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Benzyl Alcohol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2-Methylphenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Bis(2-chloroisopropyl)ether	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
3&4-Methylphenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Bis(2-chloroethoxy)methane	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2,4-Dichlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
1,2,4-Trichlorobenzene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
4-Chloro-3-methylphenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2-Methylnaphthalene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Hexachlorocyclopentadiene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2,4,6-Trichlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2,4,5-Trichlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2-Chloronaphthalene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2-Nitroaniline	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2,4-Dinitrotoluene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
3-Nitroaniline	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
4-Nitrophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Dibenzofuran	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2,6-Dinitrotoluene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0

Summary of Chemical Analysis

Water Samples

Our Ref 25-27853

Client Ref ~ PN264788

Contract Title ~ Mold WWTW

Lab No	2607284	2607285	2607286
Sample ID ~	BH1	BH2	BH4
Depth ~			
Other ID ~			
Sample Type ~	WATER UNKNOWN	WATER UNKNOWN	WATER UNKNOWN
Sampling Date ~	27/11/2025	27/11/2025	27/11/2025
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
2,3,4,6-Tetrachlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Diethylphthalate	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
4-Chlorophenylphenylether	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
4-Nitroaniline	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Diphenylamine	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
4-Bromophenylphenylether	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Hexachlorobenzene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Bis(2-ethylhexyl)ester	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Pentachlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Di-n-butylphthalate	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Butylbenzylphthalate	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Bis(2-ethylhexyl)phthalate	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Di-n-octylphthalate	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
1,4-Dinitrobenzene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Dimethylphthalate	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
1,3-Dinitrobenzene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2,3,5,6-Tetrachlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Azobenzene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Carbazole	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
1-Methylnaphthalene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0

Information in Support of the Analytical Results

Our Ref 25-27853
 Client Ref ~ PN264788
 Contract ~ Mold WwTW

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date Sampled ~	Containers Received	Holding time exceeded for tests	Incorrect container for tests
2607284	BH1 WATER UNKNOWN	27/11/25	GB 1L x2, GV x2, PB 1L x2	BOD Prep (0 days), Dissolved Oxygen (2 days), pH/Cond (1 days)	
2607285	BH2 WATER UNKNOWN	27/11/25	GB 1L x2, GV x2, PB 1L x2	BOD Prep (0 days), Dissolved Oxygen (2 days), pH/Cond (1 days)	
2607286	BH4 WATER UNKNOWN	27/11/25	GB 1L x2, GV x2, PB 1L x2	BOD Prep (0 days), Dissolved Oxygen (2 days), pH/Cond (1 days)	

Key: G-Glass P-Plastic B-Bottle V-Vial

Normec DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Key:

~ Sample details are provided by the client and can affect the validity of the results

* -not accredited.

-MCERTS (accreditation only applies if report carries the MCERTS logo).

\$ -subcontracted.

n/s -not supplied.

I/S -insufficient sample.

U/S -unsuitable sample.

t/f -to follow.

nd -not detected.

End of Report Ver 25.10.03

Certificate of Analysis

Certificate Number 25-23314

Issued: 27-Oct-25

Client Geotechnics LTD
The Geotechnical Centre
Unit 1B Borders Ind. Park
River Lane
Saltney
Chester
CH4 8RJ

Our Reference 25-23314

Client Reference ~ PN254788

Order No ~ ON45448

Contract Title ~ Mold WWTW

Description 3 Soil samples.

Date Received 08-Oct-25

Date Started 08-Oct-25

Date Completed 27-Oct-25

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By




Louise Cook
Contracts Manager



Normec DETS Limited

Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY
Tel: 01207 582333 • email: info-dets@normecgroup.com • normecdets.com

Summary of Chemical Analysis

Matrix Descriptions

Our Ref 25-23314

Client Ref ~ PN254788

Contract Title ~ Mold WWTW

Sample ID	Depth	Lab No	Completed	Matrix Description
BH1	0.5	2580375	27/10/2025	Brown gravelly, sandy CLAY
BH1	3	2580376	27/10/2025	Brown gravelly, sandy CLAY

Summary of Chemical Analysis

Soil Samples

Our Ref 25-23314
 Client Ref ~ PN254788
 Contract Title ~ Mold WWTW

Lab No	2580375	2580376	2580377
Sample ID ~	BH1	BH1	BH1
Depth ~	0.50	3.00	4.00
Other ID ~			
Sample Type ~	ES	ES	ES
Sampling Date ~	06/10/2025	06/10/2025	06/10/2025
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
Metals						
Arsenic	DETSC 2301#	0.2	mg/kg	10	10	
Barium	DETSC 2301#	1.5	mg/kg	280	120	
Beryllium	DETSC 2301#	0.2	mg/kg	0.7	0.6	
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg	2.0	1.3	
Cadmium	DETSC 2301#	0.1	mg/kg	1.4	6.4	
Chromium	DETSC 2301#	0.15	mg/kg	29	24	
Copper	DETSC 2301#	0.2	mg/kg	360	71	
Lead	DETSC 2301#	0.3	mg/kg	560	1300	
Magnesium Aqueous Extract (2:1)	DETSC 2076*	10	mg/l			< 10
Mercury	DETSC 2325#	0.05	mg/kg	0.16	0.22	
Molybdenum	DETSC 2301#	0.4	mg/kg	1.2	0.5	
Nickel	DETSC 2301#	1	mg/kg	37	31	
Selenium	DETSC 2301#	0.5	mg/kg	0.8	1.2	
Vanadium	DETSC 2301#	0.8	mg/kg	37	23	
Zinc	DETSC 2301#	1	mg/kg	450	930	
Inorganics						
pH	DETSC 2008#		pH	10.7	8.7	8.1
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.1	0.4	
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1	0.2	
Thiocyanate	DETSC 2130#	0.6	mg/kg	1.1	1.5	
Total Organic Carbon	DETSC 2084#	0.5	%	2.6	1.7	
Ammonia Aqueous Extract as N	DETSC 2119*	10	mg/l			< 10
Chloride Aqueous Extract (2:1)	DETSC 2055	1	mg/l			46
Nitrate Aqueous Extract as NO3 (2:1)	DETSC 2055	1	mg/l			1.0
Sulphate Aqueous Extract as SO4 (2:1)	DETSC 2076#	10	mg/l	320	150	35
Sulphide	DETSC 2024*	10	mg/kg	130	150	
Sulphur as S, Total	DETSC 2320	0.01	%	0.08	0.10	0.04
Sulphate as SO4, Total	DETSC 2321#	0.01	%			0.06
Petroleum Hydrocarbons						
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	
Aliphatic >EC10-EC12	DETSC 3521#	1.5	mg/kg	< 1.50	< 1.50	
Aliphatic >EC12-EC16	DETSC 3521#	1.2	mg/kg	< 1.20	< 1.20	
Aliphatic >EC16-EC21	DETSC 3521#	1.5	mg/kg	< 1.50	< 1.50	
Aliphatic >EC21-EC35	DETSC 3521#	3.4	mg/kg	< 3.40	< 3.40	
Aliphatic C5-C35	DETSC 3521*	10	mg/kg	< 10.00	< 10.00	
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	
Aromatic >EC10-EC12	DETSC 3521#	0.9	mg/kg	< 0.90	< 0.90	

Summary of Chemical Analysis

Soil Samples

Our Ref 25-23314
 Client Ref ~ PN254788
 Contract Title ~ Mold WWTW

Lab No	2580375	2580376	2580377
Sample ID ~	BH1	BH1	BH1
Depth ~	0.50	3.00	4.00
Other ID ~			
Sample Type ~	ES	ES	ES
Sampling Date ~	06/10/2025	06/10/2025	06/10/2025
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
Aromatic >EC12-EC16	DETSC 3521#	0.5	mg/kg	< 0.50	< 0.50	
Aromatic >EC16-EC21	DETSC 3521#	0.6	mg/kg	1.72	0.97	
Aromatic >EC21-EC35	DETSC 3521#	1.4	mg/kg	4.51	< 1.40	
Aromatic C5-C35	DETSC 3521*	10	mg/kg	< 10.00	< 10.00	
TPH Ali/Aro Total C5-C35	DETSC 3521*	10	mg/kg	< 10.00	< 10.00	
C24-C40 Lube Oil Range Organics (LORO)	DETSC 3311#	10	mg/kg	< 10	< 10	
PAHs						
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.17	< 0.03	
Anthracene	DETSC 3303	0.03	mg/kg	0.05	< 0.03	
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.43	0.05	
Pyrene	DETSC 3303#	0.03	mg/kg	0.40	0.05	
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.20	< 0.03	
Chrysene	DETSC 3303	0.03	mg/kg	0.18	< 0.03	
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.31	< 0.03	
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.12	< 0.03	
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.24	< 0.03	
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.18	< 0.03	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.04	< 0.03	
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.20	< 0.03	
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	2.5	0.10	
Phenols						
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	< 0.3	< 0.3	
Subcontracted Analysis						
E. coli	§*	10	cfu/g	<10	positive 290	
Salmonella	§*	25	cfu/g	N.D	N.D	
Total coliforms	§*	10	cfu/g	<10	positive 620	
Enterococci	§*	0		< 20.0	480	
Clostridia	§*	0	cfu/g	< 10.0	< 10.0	
Faecal Streptococci	§*	10	cfu/g	< 20.0	480	

Summary of Chemical Analysis

Soil VOC/SVOC Samples

Our Ref 25-23314
 Client Ref ~ PN254788
 Contract Title ~ Mold WWTW

Lab No	2580375	2580376
Sample ID ~	BH1	BH1
Depth ~	0.50	3.00
Other ID ~		
Sample Type ~	ES	ES
Sampling Date ~	06/10/2025	06/10/2025
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
VOCs					
Vinyl Chloride	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01

Summary of Chemical Analysis

Soil VOC/SVOC Samples

Our Ref 25-23314
 Client Ref ~ PN254788
 Contract Title ~ Mold WWTW

Lab No	2580375	2580376
Sample ID ~	BH1	BH1
Depth ~	0.50	3.00
Other ID ~		
Sample Type ~	ES	ES
Sampling Date ~	06/10/2025	06/10/2025
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
sec-butylbenzene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Hexachlorobutadiene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
SVOCs					
Phenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1

Summary of Chemical Analysis

Soil VOC/SVOC Samples

Our Ref 25-23314

Client Ref ~ PN254788

Contract Title ~ Mold WWTW

Lab No	2580375	2580376
Sample ID ~	BH1	BH1
Depth ~	0.50	3.00
Other ID ~		
Sample Type ~	ES	ES
Sampling Date ~	06/10/2025	06/10/2025
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	2.5	< 0.1
Di-n-octylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1

Summary of Asbestos Analysis

Soil Samples

Our Ref 25-23314

Client Ref ~ PN254788

Contract Title ~ Mold WWTW

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2580375	BH1 0.50	SOIL	NAD	none	Vicky Convery
2580376	BH1 3.00	SOIL	NAD	none	Vicky Convery

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * -not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 25-23314
 Client Ref ~ PN254788
 Contract ~ Mold WWTW

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date		Containers Received	Holding time exceeded for tests	Incorrect container for tests
		Sampled ~				
2580375	BH1 0.50 SOIL	06/10/25		GJ 250ml x2, GJ 60ml, PT 1L		
2580376	BH1 3.00 SOIL	06/10/25		GJ 250ml x2, GJ 60ml, PT 1L		
2580377	BH1 4.00 SOIL	06/10/25		GJ 250ml x2, GJ 60ml, PT 1L		

Key: G-Glass P-Plastic J-Jar T-Tub

Normec DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 250µm sieve

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETS 2002	Organic matter	%	0.1	Air Dried	No	Yes	Yes
DETS 2003	Loss on ignition	%	0.01	Air Dried	No	Yes	Yes
DETS 2008	pH	pH Units	1	Air Dried	No	Yes	Yes
DETS 2076	Sulphate Aqueous Extract as SO4	mg/l	10	Air Dried	No	Yes	Yes
DETS 2084	Total Organic Carbon	%	0.5	Air Dried	No	Yes	Yes
DETS 2119	Ammoniacal Nitrogen as N	mg/kg	0.5	Air Dried	No	Yes	Yes
DETS 2130	Cyanide free	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2130	Cyanide total	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2130	Phenol - Monohydric	mg/kg	0.3	Air Dried	No	Yes	Yes
DETS 2130	Thiocyanate	mg/kg	0.6	Air Dried	No	Yes	Yes
DETS 2301	Arsenic	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Barium	mg/kg	1.5	Air Dried	No	Yes	Yes
DETS 2301	Beryllium	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Cadmium Available	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2301	Cadmium	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2301	Cobalt	mg/kg	0.7	Air Dried	No	Yes	Yes
DETS 2301	Chromium	mg/kg	0.15	Air Dried	No	Yes	Yes
DETS 2301	Copper	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Manganese	mg/kg	20	Air Dried	No	Yes	Yes
DETS 2301	Molybdenum	mg/kg	0.4	Air Dried	No	Yes	Yes
DETS 2301	Nickel	mg/kg	1	Air Dried	No	Yes	Yes
DETS 2301	Lead	mg/kg	0.3	Air Dried	No	Yes	Yes
DETS 2301	Selenium	mg/kg	0.5	Air Dried	No	Yes	Yes
DETS 2301	Zinc	mg/kg	1	Air Dried	No	Yes	Yes
DETS 2311	Boron (water soluble)	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2321	Total Sulphate as SO4	%	0.01	Air Dried	No	Yes	Yes
DETS 2325	Mercury	mg/kg	0.05	Air Dried	No	Yes	Yes
DETS 3049	Sulphur (free)	mg/kg	0.75	As Received	No	Yes	Yes
DETS 3072	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETS 3072	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETS 3072	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETS 3072	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETS 3072	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETS 3072	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETS 3072	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETS 3072	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes
DETS 3303	Acenaphthene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Acenaphthylene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(a)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(a)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(b)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(k)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(g,h,i)perylene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Dibenzo(a,h)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 3303	Indeno(1,2,3-c,d)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Naphthalene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Phenanthrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3311	C10-C24 Diesel Range Organics (DRO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	C24-C40 Lube Oil Range Organics (LORO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	EPH (C10-C40)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3321	Benzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Ethylbenzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Toluene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	m+p Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	o Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 28 + PCB 31	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 52	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 101	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 118	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 153	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 138	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 180	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB Total	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3521	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3521	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETSC 3521	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETSC 3521	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETSC 3521	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS. No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
--------	-----------	-------	--------------------	--------------------	----------------	------	--------

Key:

~ Sample details are provided by the client and can affect the validity of the results

* -not accredited.

-MCERTS (accreditation only applies if report carries the MCERTS logo).

\$ -subcontracted.

n/s -not supplied.

I/S -insufficient sample.

U/S -unsuitable sample.

t/f -to follow.

nd -not detected.

End of Report

Certificate of Analysis

Certificate Number 25-23543

Issued: 27-Oct-25

Client Geotechnics LTD
The Geotechnical Centre
Unit 1B Borders Ind. Park
River Lane
Saltney
Chester
CH4 8RJ

Our Reference 25-23543

Client Reference ~ PN254788

Order No ~ ON45448

Contract Title ~ Mold

Description 2 Soil samples.

Date Received 10-Oct-25

Date Started 10-Oct-25

Date Completed 27-Oct-25

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By




Louise Cook
Contracts Manager



Normec DETS Limited

Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY
Tel: 01207 582333 • email: info-dets@normecgroup.com • normecdets.com

Summary of Chemical Analysis

Matrix Descriptions

Our Ref 25-23543

Client Ref ~ PN254788

Contract Title ~ Mold

Sample ID	Depth	Lab No	Completed	Matrix Description
BH2	0.5	2581645	27/10/2025	Dark brown gravelly, sandy CLAY
BH2	3	2581646	27/10/2025	Dark brown slightly gravelly, sandy CLAY

Summary of Chemical Analysis

Soil Samples

Our Ref 25-23543
 Client Ref ~ PN254788
 Contract Title ~ Mold

Lab No	2581645	2581646
Sample ID ~	BH2	BH2
Depth ~	0.50	3.00
Other ID ~		
Sample Type ~	SOIL	SOIL
Sampling Date ~	08/10/2025	08/10/2025
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
Metals					
Arsenic	DETSC 2301#	0.2	mg/kg	8.3	8.3
Barium	DETSC 2301#	1.5	mg/kg	120	130
Beryllium	DETSC 2301#	0.2	mg/kg	0.7	0.6
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg	0.5	0.6
Cadmium	DETSC 2301#	0.1	mg/kg	1.4	4.2
Chromium	DETSC 2301#	0.15	mg/kg	18	20
Copper	DETSC 2301#	0.2	mg/kg	41	30
Lead	DETSC 2301#	0.3	mg/kg	1700	1400
Magnesium Aqueous Extract (2:1)	DETSC 2076*	10	mg/l	< 10	
Mercury	DETSC 2325#	0.05	mg/kg	0.34	0.23
Molybdenum	DETSC 2301#	0.4	mg/kg	1.1	0.8
Nickel	DETSC 2301#	1	mg/kg	19	18
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5
Vanadium	DETSC 2301#	0.8	mg/kg	22	21
Zinc	DETSC 2301#	1	mg/kg	250	560
Inorganics					
pH	DETSC 2008#		pH	8.2	8.0
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.2	0.3
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1	0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	1.3	3.4
Total Organic Carbon	DETSC 2084#	0.5	%	3.4	2.2
Ammonia Aqueous Extract as N	DETSC 2119*	10	mg/l	< 10	
Chloride Aqueous Extract (2:1)	DETSC 2055	1	mg/l	21	
Nitrate Aqueous Extract as NO3 (2:1)	DETSC 2055	1	mg/l	2.8	
Sulphate Aqueous Extract as SO4 (2:1)	DETSC 2076#	10	mg/l	79	60
Sulphide	DETSC 2024*	10	mg/kg	32	110
Sulphur as S, Total	DETSC 2320	0.01	%	0.06	0.10
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.06	
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic >EC10-EC12	DETSC 3521#	1.5	mg/kg	1.88	2.00
Aliphatic >EC12-EC16	DETSC 3521#	1.2	mg/kg	< 1.20	< 1.20
Aliphatic >EC16-EC21	DETSC 3521#	1.5	mg/kg	< 1.50	< 1.50
Aliphatic >EC21-EC35	DETSC 3521#	3.4	mg/kg	< 3.40	< 3.40
Aliphatic C5-C35	DETSC 3521*	10	mg/kg	< 10.00	< 10.00
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic >EC10-EC12	DETSC 3521#	0.9	mg/kg	< 0.90	< 0.90

Summary of Chemical Analysis

Soil Samples

Our Ref 25-23543
 Client Ref ~ PN254788
 Contract Title ~ Mold

Lab No	2581645	2581646
Sample ID ~	BH2	BH2
Depth ~	0.50	3.00
Other ID ~		
Sample Type ~	SOIL	SOIL
Sampling Date ~	08/10/2025	08/10/2025
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
Aromatic >EC12-EC16	DETSC 3521#	0.5	mg/kg	< 0.50	< 0.50
Aromatic >EC16-EC21	DETSC 3521#	0.6	mg/kg	0.99	< 0.60
Aromatic >EC21-EC35	DETSC 3521#	1.4	mg/kg	2.66	< 1.40
Aromatic C5-C35	DETSC 3521*	10	mg/kg	< 10.00	< 10.00
TPH Ali/Aro Total C5-C35	DETSC 3521*	10	mg/kg	< 10.00	< 10.00
C24-C40 Lube Oil Range Organics (LORO)	DETSC 3311#	10	mg/kg	< 10	< 10
PAHs					
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.11	0.07
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.27	0.17
Pyrene	DETSC 3303#	0.03	mg/kg	0.26	0.15
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.14	0.06
Chrysene	DETSC 3303	0.03	mg/kg	0.14	0.08
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.23	0.13
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.08	0.04
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.16	0.08
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.11	0.06
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.11	0.06
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.6	0.89
Phenols					
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	0.4	0.6

Summary of Chemical Analysis

Soil Samples

Our Ref 25-23543
 Client Ref ~ PN254788
 Contract Title ~ Mold

Lab No	2581645	2581646
Sample ID ~	BH2	BH2
Depth ~	0.50	3.00
Other ID ~		
Sample Type ~	SOIL	SOIL
Sampling Date ~	08/10/2025	08/10/2025
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
VOCs					
Vinyl Chloride	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01

Summary of Chemical Analysis

Soil Samples

Our Ref 25-23543
 Client Ref ~ PN254788
 Contract Title ~ Mold

Lab No	2581645	2581646
Sample ID ~	BH2	BH2
Depth ~	0.50	3.00
Other ID ~		
Sample Type ~	SOIL	SOIL
Sampling Date ~	08/10/2025	08/10/2025
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
sec-butylbenzene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Hexachlorobutadiene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
SVOCs					
Phenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1

Summary of Chemical Analysis

Soil Samples

Our Ref 25-23543
 Client Ref ~ PN254788
 Contract Title ~ Mold

Lab No	2581645	2581646
Sample ID ~	BH2	BH2
Depth ~	0.50	3.00
Other ID ~		
Sample Type ~	SOIL	SOIL
Sampling Date ~	08/10/2025	08/10/2025
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	0.1	0.2
Di-n-octylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Subcontracted Analysis					
E. coli	\$*	10	cfu/g	positive 380	positive 240
Salmonella	\$*	25	cfu/g	N.D	N.D
Total coliforms	\$*	10	cfu/g	positive 600	positive 320
Enterococci	\$*	0		620	500
Clostridia	\$*	0	cfu/g	< 10.0	< 10.0
Faecal Streptococci	\$*	10	cfu/g	620	500

Summary of Asbestos Analysis

Soil Samples

Our Ref 25-23543

Client Ref ~ PN254788

Contract Title ~ Mold

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2581645	BH2 0.50	SOIL	NAD	none	Pierce Booth
2581646	BH2 3.00	SOIL	NAD	none	Pierce Booth

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * -not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 25-23543
 Client Ref ~ PN254788
 Contract ~ Mold

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date		Containers Received	Holding time exceeded for tests	Incorrect container for tests
		Sampled ~				
2581645	BH2 0.50 SOIL	08/10/25		GJ 250ml x3, GJ 60ml, PT 1L		
2581646	BH2 3.00 SOIL	08/10/25		GJ 250ml x3, GJ 60ml, PT 1L		

Key: G-Glass P-Plastic J-Jar T-Tub

Normec DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 250µm sieve

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETS 2002	Organic matter	%	0.1	Air Dried	No	Yes	Yes
DETS 2003	Loss on ignition	%	0.01	Air Dried	No	Yes	Yes
DETS 2008	pH	pH Units	1	Air Dried	No	Yes	Yes
DETS 2076	Sulphate Aqueous Extract as SO4	mg/l	10	Air Dried	No	Yes	Yes
DETS 2084	Total Organic Carbon	%	0.5	Air Dried	No	Yes	Yes
DETS 2119	Ammoniacal Nitrogen as N	mg/kg	0.5	Air Dried	No	Yes	Yes
DETS 2130	Cyanide free	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2130	Cyanide total	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2130	Phenol - Monohydric	mg/kg	0.3	Air Dried	No	Yes	Yes
DETS 2130	Thiocyanate	mg/kg	0.6	Air Dried	No	Yes	Yes
DETS 2301	Arsenic	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Barium	mg/kg	1.5	Air Dried	No	Yes	Yes
DETS 2301	Beryllium	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Cadmium Available	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2301	Cadmium	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2301	Cobalt	mg/kg	0.7	Air Dried	No	Yes	Yes
DETS 2301	Chromium	mg/kg	0.15	Air Dried	No	Yes	Yes
DETS 2301	Copper	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Manganese	mg/kg	20	Air Dried	No	Yes	Yes
DETS 2301	Molybdenum	mg/kg	0.4	Air Dried	No	Yes	Yes
DETS 2301	Nickel	mg/kg	1	Air Dried	No	Yes	Yes
DETS 2301	Lead	mg/kg	0.3	Air Dried	No	Yes	Yes
DETS 2301	Selenium	mg/kg	0.5	Air Dried	No	Yes	Yes
DETS 2301	Zinc	mg/kg	1	Air Dried	No	Yes	Yes
DETS 2311	Boron (water soluble)	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2321	Total Sulphate as SO4	%	0.01	Air Dried	No	Yes	Yes
DETS 2325	Mercury	mg/kg	0.05	Air Dried	No	Yes	Yes
DETS 3049	Sulphur (free)	mg/kg	0.75	As Received	No	Yes	Yes
DETS 3072	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETS 3072	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETS 3072	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETS 3072	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETS 3072	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETS 3072	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETS 3072	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETS 3072	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes
DETS 3303	Acenaphthene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Acenaphthylene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(a)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(a)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(b)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(k)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(g,h,i)perylene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Dibenzo(a,h)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 3303	Indeno(1,2,3-c,d)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Naphthalene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Phenanthrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3311	C10-C24 Diesel Range Organics (DRO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	C24-C40 Lube Oil Range Organics (LORO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	EPH (C10-C40)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3321	Benzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Ethylbenzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Toluene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	m+p Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	o Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 28 + PCB 31	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 52	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 101	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 118	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 153	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 138	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 180	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB Total	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3521	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3521	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETSC 3521	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETSC 3521	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETSC 3521	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS. No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
--------	-----------	-------	--------------------	--------------------	----------------	------	--------

Key:

~ Sample details are provided by the client and can affect the validity of the results

* -not accredited.

-MCERTS (accreditation only applies if report carries the MCERTS logo).

\$ -subcontracted.

n/s -not supplied.

I/S -insufficient sample.

U/S -unsuitable sample.

t/f -to follow.

nd -not detected.

End of Report

Certificate of Analysis

Certificate Number 25-24454

Issued: 27-Oct-25

Client Geotechnics LTD
The Geotechnical Centre
Unit 1B Borders Ind. Park
River Lane
Saltney
Chester
CH4 8RJ

Our Reference 25-24454

Client Reference ~ PN254788

Order No ~ ON45448

Contract Title ~ Mold WWTW

Description 2 Soil samples.

Date Received 22-Oct-25

Date Started 22-Oct-25

Date Completed 27-Oct-25

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By



Louise Cook
Contracts Manager



Summary of Asbestos Analysis

Soil Samples

Our Ref 25-24454

Client Ref ~ PN254788

Contract Title ~ Mold WWTW

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2587348	BH4 1.50-1.95	SOIL	NAD	none	Lucy Lindsley
2587349	BH4 2.50-2.95	SOIL	NAD	none	Lucy Lindsley

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * -not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 25-24454
 Client Ref ~ PN254788
 Contract ~ Mold WWTW

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date Sampled ~	Containers Received	Holding time exceeded for tests	Incorrect container for tests
2587348	BH4 1.50-1.95 SOIL		PT 1L		
2587349	BH4 2.50-2.95 SOIL		PT 1L		

Key: P-Plastic T-Tub

Normec DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Key:

- ~ Sample details are provided by the client and can affect the validity of the results
- * -not accredited.
- # -MCERTS (accreditation only applies if report carries the MCERTS logo).
- \$ -subcontracted.
- n/s -not supplied.
- I/S -insufficient sample.
- U/S -unsuitable sample.
- t/f -to follow.
- nd -not detected.

End of Report Ver 25.10.01

Certificate of Analysis

Certificate Number 25-23714

Issued: 27-Oct-25

Client Geotechnics LTD
The Geotechnical Centre
Unit 1B Borders Ind. Park
River Lane
Saltney
Chester
CH4 8RJ

Our Reference 25-23714

Client Reference ~ PN254788

Order No ~ ON45448

Contract Title ~ Mold WWTW

Description 2 Soil samples.

Date Received 14-Oct-25

Date Started 14-Oct-25

Date Completed 27-Oct-25

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By




Louise Cook
Contracts Manager



Normec DETS Limited

Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY
Tel: 01207 582333 • email: info-dets@normecgroup.com • normecdets.com

Summary of Chemical Analysis

Matrix Descriptions

Our Ref 25-23714

Client Ref ~ PN254788

Contract Title ~ Mold WWTW

Sample ID	Depth	Lab No	Completed	Matrix Description
BH03	1	2582851	27/10/2025	Brown gravelly, clayey SAND
BH3A	0.5	2582852	27/10/2025	Brown gravelly, clayey SAND

Summary of Chemical Analysis

Soil Samples

Our Ref 25-23714
 Client Ref ~ PN254788
 Contract Title ~ Mold WWTW

Lab No	2582851	2582852
Sample ID ~	BH03	BH3A
Depth ~	1.00	0.50
Other ID ~		
Sample Type ~	ES	ES
Sampling Date ~	07/10/2025	08/10/2025
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
Metals					
Arsenic mg/kg	DETSC 2301#	0.2	mg/kg	7.7	11
Barium mg/kg	DETSC 2301#	1.5	mg/kg	68	56
Beryllium mg/kg	DETSC 2301#	0.2	mg/kg	0.8	0.6
Boron, Water Soluble (2.5:1) mg/kg	DETSC 2311#	0.2	mg/kg	0.5	0.4
Cadmium mg/kg	DETSC 2301#	0.1	mg/kg	0.8	0.7
Chromium mg/kg	DETSC 2301#	0.15	mg/kg	12	15
Copper mg/kg	DETSC 2301#	0.2	mg/kg	21	17
Lead mg/kg	DETSC 2301#	0.3	mg/kg	200	130
Mercury mg/kg	DETSC 2325#	0.05	mg/kg	0.08	0.05
Molybdenum mg/kg	DETSC 2301#	0.4	mg/kg	1.0	1.5
Nickel mg/kg	DETSC 2301#	1	mg/kg	14	15
Selenium mg/kg	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5
Vanadium mg/kg	DETSC 2301#	0.8	mg/kg	16	26
Zinc mg/kg	DETSC 2301#	1	mg/kg	120	96
Inorganics					
pH	DETSC 2008#		pH	9.6	8.8
Cyanide, Total mg/kg	DETSC 2130#	0.1	mg/kg	< 0.1	< 0.1
Cyanide, Free mg/kg	DETSC 2130#	0.1	mg/kg	< 0.1	< 0.1
Thiocyanate mg/kg	DETSC 2130#	0.6	mg/kg	< 0.6	2.2
Total Organic Carbon %	DETSC 2084#	0.5	%	1.7	1.0
Sulphate Aqueous Extract as SO4 (2:1) mg/l	DETSC 2076#	10	mg/l	120	58
Sulphide mg/kg	DETSC 2024*	10	mg/kg	28	32
Sulphur as S, Total %	DETSC 2320	0.01	%	0.04	0.04
Petroleum Hydrocarbons					
Aliphatic C5-C6 mg/kg	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C6-C8 mg/kg	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C8-C10 mg/kg	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic >EC10-EC12 mg/kg	DETSC 3521#	1.5	mg/kg	< 1.50	< 1.50
Aliphatic >EC12-EC16 mg/kg	DETSC 3521#	1.2	mg/kg	< 1.20	< 1.20
Aliphatic >EC16-EC21 mg/kg	DETSC 3521#	1.5	mg/kg	< 1.50	< 1.50
Aliphatic >EC21-EC35 mg/kg	DETSC 3521#	3.4	mg/kg	< 3.40	< 3.40
Aliphatic C5-C35 mg/kg	DETSC 3521*	10	mg/kg	< 10.00	< 10.00
Aromatic C5-C7 mg/kg	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C7-C8 mg/kg	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C8-C10 mg/kg	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic >EC10-EC12 mg/kg	DETSC 3521#	0.9	mg/kg	< 0.90	< 0.90
Aromatic >EC12-EC16 mg/kg	DETSC 3521#	0.5	mg/kg	< 0.50	< 0.50
Aromatic >EC16-EC21 mg/kg	DETSC 3521#	0.6	mg/kg	0.79	< 0.60
Aromatic >EC21-EC35 mg/kg	DETSC 3521#	1.4	mg/kg	2.34	1.70
Aromatic C5-C35 mg/kg	DETSC 3521*	10	mg/kg	< 10.00	< 10.00

Summary of Chemical Analysis

Soil Samples

Our Ref 25-23714
 Client Ref ~ PN254788
 Contract Title ~ Mold WWTW

Lab No	2582851	2582852
Sample ID ~	BH03	BH3A
Depth ~	1.00	0.50
Other ID ~		
Sample Type ~	ES	ES
Sampling Date ~	07/10/2025	08/10/2025
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
TPH Ali/Aro Total C5-C35 mg/kg	DETSC 3521*	10	mg/kg	< 10.00	< 10.00
C24-C40 Lube Oil Range Organics (LORO) mg/kg	DETSC 3311#	10	mg/kg	< 10	< 10
PAHs					
Naphthalene mg/kg	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Acenaphthylene mg/kg	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Acenaphthene mg/kg	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Fluorene mg/kg	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03
Phenanthrene mg/kg	DETSC 3303#	0.03	mg/kg	0.13	0.07
Anthracene mg/kg	DETSC 3303	0.03	mg/kg	0.04	0.03
Fluoranthene mg/kg	DETSC 3303#	0.03	mg/kg	0.28	0.14
Pyrene mg/kg	DETSC 3303#	0.03	mg/kg	0.26	0.13
Benzo(a)anthracene mg/kg	DETSC 3303#	0.03	mg/kg	0.16	0.07
Chrysene mg/kg	DETSC 3303	0.03	mg/kg	0.16	0.07
Benzo(b)fluoranthene mg/kg	DETSC 3303#	0.03	mg/kg	0.23	0.11
Benzo(k)fluoranthene mg/kg	DETSC 3303#	0.03	mg/kg	0.09	0.04
Benzo(a)pyrene mg/kg	DETSC 3303#	0.03	mg/kg	0.16	0.07
Indeno(1,2,3-c,d)pyrene mg/kg	DETSC 3303#	0.03	mg/kg	0.12	0.05
Dibenzo(a,h)anthracene mg/kg	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Benzo(g,h,i)perylene mg/kg	DETSC 3303#	0.03	mg/kg	0.14	0.06
PAH - USEPA 16, Total mg/kg	DETSC 3303	0.1	mg/kg	1.8	0.83
Phenols					
Phenol - Monohydric mg/kg	DETSC 2130#	0.3	mg/kg	< 0.3	< 0.3

Summary of Chemical Analysis

Soil Samples

Our Ref 25-23714
 Client Ref ~ PN254788
 Contract Title ~ Mold WWTW

Lab No	2582851	2582852
Sample ID ~	BH03	BH3A
Depth ~	1.00	0.50
Other ID ~		
Sample Type ~	ES	ES
Sampling Date ~	07/10/2025	08/10/2025
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
VOCs					
Vinyl Chloride mg/kg	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
1,1 Dichloroethylene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Trans-1,2-dichloroethylene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1-dichloroethane mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Cis-1,2-dichloroethylene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
2,2-dichloropropane mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Bromochloromethane mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Chloroform mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1,1-trichloroethane mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1-dichloropropene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Carbon tetrachloride mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Benzene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dichloroethane mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Trichloroethylene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dichloropropane mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Dibromomethane mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Bromodichloromethane mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
cis-1,3-dichloropropene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Toluene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
trans-1,3-dichloropropene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1,2-trichloroethane mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Tetrachloroethylene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,3-dichloropropane mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Dibromochloromethane mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dibromoethane mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Chlorobenzene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1,1,2-tetrachloroethane mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Ethylbenzene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
m+p-Xylene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
o-Xylene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Styrene mg/kg	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
Bromoform mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Isopropylbenzene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Bromobenzene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2,3-trichloropropane mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
n-propylbenzene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
2-chlorotoluene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,3,5-trimethylbenzene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
4-chlorotoluene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Tert-butylbenzene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2,4-trimethylbenzene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01

Summary of Chemical Analysis

Soil Samples

Our Ref 25-23714
 Client Ref ~ PN254788
 Contract Title ~ Mold WWTW

Lab No	2582851	2582852
Sample ID ~	BH03	BH3A
Depth ~	1.00	0.50
Other ID ~		
Sample Type ~	ES	ES
Sampling Date ~	07/10/2025	08/10/2025
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
sec-butylbenzene mg/kg	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
p-isopropyltoluene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,3-dichlorobenzene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,4-dichlorobenzene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
n-butylbenzene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dichlorobenzene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dibromo-3-chloropropane mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2,4-trichlorobenzene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Hexachlorobutadiene mg/kg	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
1,2,3-trichlorobenzene mg/kg	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
MTBE mg/kg	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
SVOCs					
Phenol mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Aniline mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2-Chlorophenol mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Benzyl Alcohol mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2-Methylphenol mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Bis(2-chloroisopropyl)ether mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
3&4-Methylphenol mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,4-Dimethylphenol mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Bis-(dichloroethoxy)methane mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,4-Dichlorophenol mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
1,2,4-Trichlorobenzene mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Chloro-3-methylphenol mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2-Methylnaphthalene mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Hexachlorocyclopentadiene mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2,4,6-Trichlorophenol mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,4,5-Trichlorophenol mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2-Chloronaphthalene mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2-Nitroaniline mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2,4-Dinitrotoluene mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
3-Nitroaniline mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
4-Nitrophenol mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Dibenzofuran mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,6-Dinitrotoluene mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,3,4,6-Tetrachlorophenol mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Diethylphthalate mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Chlorophenylphenylether mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
4-Nitroaniline mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2-Methyl-4,6-Dinitrophenol mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Diphenylamine mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Bromophenylphenylether mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1

Summary of Chemical Analysis

Soil Samples

Our Ref 25-23714
 Client Ref ~ PN254788
 Contract Title ~ Mold WWTW

Lab No	2582851	2582852
Sample ID ~	BH03	BH3A
Depth ~	1.00	0.50
Other ID ~		
Sample Type ~	ES	ES
Sampling Date ~	07/10/2025	08/10/2025
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
Hexachlorobenzene mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Pentachlorophenol mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Di-n-butylphthalate mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Butylbenzylphthalate mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Bis(2-ethylhexyl)phthalate mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	0.6
Di-n-octylphthalate mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
1,4-Dinitrobenzene mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Dimethylphthalate mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
1,3-Dinitrobenzene mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
1,2-Dinitrobenzene mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2,3,5,6-Tetrachlorophenol mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Azobenzene mg/kg	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Carbazole mg/kg	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Subcontracted Analysis					
E. coli cfu/g	\$*	10	cfu/g	<10	<10
Salmonella cfu/g	\$*	25	cfu/g	N.D	N.D
Total coliforms cfu/g	\$*	10	cfu/g	Positive 10	<10
Enterococci	\$*	0		< 20.0	< 20.0
Clostridia cfu/g	\$*	0	cfu/g	< 10.0	< 10.0
Faecal Streptococci cfu/g	\$*	10	cfu/g	< 20.0	< 20.0

Summary of Asbestos Analysis

Soil Samples

Our Ref 25-23714

Client Ref ~ PN254788

Contract Title ~ Mold WWTW

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2582851	BH03 1.00	SOIL	NAD	none	Michael Kay
2582852	BH3A 0.50	SOIL	NAD	none	Michael Kay

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * -not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 25-23714
 Client Ref ~ PN254788
 Contract ~ Mold WWTW

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date Sampled ~	Containers Received	Holding time exceeded for tests	Incorrect container for tests
2582851	BH03 1.00 SOIL	07/10/25	GJ 250ml x2, GJ 60ml, PT 1L		
2582852	BH3A 0.50 SOIL	08/10/25	GJ 250ml x3, GJ 60ml, PT 1L		

Key: G-Glass P-Plastic J-Jar T-Tub

Normec DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 250µm sieve

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 2002	Organic matter	%	0.1	Air Dried	No	Yes	Yes
DETSC 2003	Loss on ignition	%	0.01	Air Dried	No	Yes	Yes
DETSC 2008	pH	pH Units	1	Air Dried	No	Yes	Yes
DETSC 2076	Sulphate Aqueous Extract as SO4	mg/l	10	Air Dried	No	Yes	Yes
DETSC 2084	Total Organic Carbon	%	0.5	Air Dried	No	Yes	Yes
DETSC 2119	Ammoniacal Nitrogen as N	mg/kg	0.5	Air Dried	No	Yes	Yes
DETSC 2130	Cyanide free	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2130	Cyanide total	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2130	Phenol - Monohydric	mg/kg	0.3	Air Dried	No	Yes	Yes
DETSC 2130	Thiocyanate	mg/kg	0.6	Air Dried	No	Yes	Yes
DETSC 2301	Arsenic	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC 2301	Barium	mg/kg	1.5	Air Dried	No	Yes	Yes
DETSC 2301	Beryllium	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC 2301	Cadmium Available	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2301	Cadmium	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2301	Cobalt	mg/kg	0.7	Air Dried	No	Yes	Yes
DETSC 2301	Chromium	mg/kg	0.15	Air Dried	No	Yes	Yes
DETSC 2301	Copper	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC 2301	Manganese	mg/kg	20	Air Dried	No	Yes	Yes
DETSC 2301	Molybdenum	mg/kg	0.4	Air Dried	No	Yes	Yes
DETSC 2301	Nickel	mg/kg	1	Air Dried	No	Yes	Yes
DETSC 2301	Lead	mg/kg	0.3	Air Dried	No	Yes	Yes
DETSC 2301	Selenium	mg/kg	0.5	Air Dried	No	Yes	Yes
DETSC 2301	Zinc	mg/kg	1	Air Dried	No	Yes	Yes
DETSC 2311	Boron (water soluble)	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC 2321	Total Sulphate as SO4	%	0.01	Air Dried	No	Yes	Yes
DETSC 2325	Mercury	mg/kg	0.05	Air Dried	No	Yes	Yes
DETSC 3049	Sulphur (free)	mg/kg	0.75	As Received	No	Yes	Yes
DETSC 3072	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3072	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETSC 3072	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETSC 3072	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETSC 3072	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes
DETSC 3303	Acenaphthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Acenaphthylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(b)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(k)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(g,h,i)perylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Dibenzo(a,h)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 3303	Indeno(1,2,3-c,d)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Naphthalene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Phenanthrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3311	C10-C24 Diesel Range Organics (DRO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	C24-C40 Lube Oil Range Organics (LORO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	EPH (C10-C40)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3321	Benzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Ethylbenzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Toluene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	m+p Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	o Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 28 + PCB 31	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 52	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 101	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 118	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 153	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 138	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 180	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB Total	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3521	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3521	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETSC 3521	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETSC 3521	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETSC 3521	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS. No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
--------	-----------	-------	--------------------	--------------------	----------------	------	--------

Key:

~ Sample details are provided by the client and can affect the validity of the results

* -not accredited.

-MCERTS (accreditation only applies if report carries the MCERTS logo).

\$ -subcontracted.

n/s -not supplied.

I/S -insufficient sample.

U/S -unsuitable sample.

t/f -to follow.

nd -not detected.

End of Report

Certificate of Analysis

Certificate Number 25-23712

Issued: 27-Oct-25

Client Geotechnics LTD
The Geotechnical Centre
Unit 1B Borders Ind. Park
River Lane
Saltney
Chester
CH4 8RJ

Our Reference 25-23712

Client Reference ~ PN254788

Order No ~ ON45448

Contract Title ~ Mold WWTW

Description 2 Soil samples.

Date Received 14-Oct-25

Date Started 14-Oct-25

Date Completed 27-Oct-25

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By




Louise Cook
Contracts Manager



2139

Sample Deviations present. See Deviation Table Section for details.

Normec DETS Limited

Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY
Tel: 01207 582333 • email: info-dets@normecgroup.com • normecdets.com

Summary of Chemical Analysis

Matrix Descriptions

Our Ref 25-23712

Client Ref ~ PN254788

Contract Title ~ Mold WWTW

Sample ID	Depth	Lab No	Completed	Matrix Description
BH4	0.50-1.50	2582846	27/10/2025	Brown very gravelly, sandy CLAY
BH4	4	2582847	27/10/2025	Brown very gravelly SAND

Summary of Chemical Analysis

Soil Samples

Our Ref 25-23712
 Client Ref ~ PN254788
 Contract Title ~ Mold WWTW

Lab No	2582846	2582847
Sample ID ~	BH4	BH4
Depth ~	0.50-1.50	4.00
Other ID ~		
Sample Type ~	ES	ES
Sampling Date ~	09/10/2025	09/10/2025
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
Metals					
Arsenic	DETSC 2301#	0.2	mg/kg	4.7	5.1
Barium	DETSC 2301#	1.5	mg/kg	100	24
Beryllium	DETSC 2301#	0.2	mg/kg	0.7	0.5
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg	1.0	0.2
Cadmium	DETSC 2301#	0.1	mg/kg	0.4	0.1
Chromium	DETSC 2301#	0.15	mg/kg	12	23
Copper	DETSC 2301#	0.2	mg/kg	34	19
Lead	DETSC 2301#	0.3	mg/kg	100	23
Magnesium Aqueous Extract (2:1)	DETSC 2076*	10	mg/l		< 10
Mercury	DETSC 2325#	0.05	mg/kg	0.08	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	5.5	1.1
Nickel	DETSC 2301#	1	mg/kg	16	32
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5
Vanadium	DETSC 2301#	0.8	mg/kg	20	22
Zinc	DETSC 2301#	1	mg/kg	73	54
Inorganics					
pH	DETSC 2008#		pH	9.6	8.8
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.1	< 0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.7	< 0.6
Total Organic Carbon	DETSC 2084#	0.5	%	4.3	< 0.5
Ammonia Aqueous Extract as N	DETSC 2119*	10	mg/l		< 10
Chloride Aqueous Extract (2:1)	DETSC 2055	1	mg/l		8.1
Nitrate Aqueous Extract as NO3 (2:1)	DETSC 2055	1	mg/l		2.2
Sulphate Aqueous Extract as SO4 (2:1)	DETSC 2076#	10	mg/l	190	28
Sulphide	DETSC 2024*	10	mg/kg	28	16
Sulphur as S, Total	DETSC 2320	0.01	%	0.17	0.06
Sulphate as SO4, Total	DETSC 2321#	0.01	%		0.03
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic >EC10-EC12	DETSC 3521#	1.5	mg/kg	< 1.50	< 1.50
Aliphatic >EC12-EC16	DETSC 3521#	1.2	mg/kg	< 1.20	< 1.20
Aliphatic >EC16-EC21	DETSC 3521#	1.5	mg/kg	< 1.50	< 1.50
Aliphatic >EC21-EC35	DETSC 3521#	3.4	mg/kg	< 3.40	< 3.40
Aliphatic C5-C35	DETSC 3521*	10	mg/kg	< 10.00	< 10.00
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic >EC10-EC12	DETSC 3521#	0.9	mg/kg	< 0.90	< 0.90

Summary of Chemical Analysis

Soil Samples

Our Ref 25-23712
 Client Ref ~ PN254788
 Contract Title ~ Mold WWTW

Lab No	2582846	2582847
Sample ID ~	BH4	BH4
Depth ~	0.50-1.50	4.00
Other ID ~		
Sample Type ~	ES	ES
Sampling Date ~	09/10/2025	09/10/2025
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
Aromatic >EC12-EC16	DETSC 3521#	0.5	mg/kg	< 0.50	< 0.50
Aromatic >EC16-EC21	DETSC 3521#	0.6	mg/kg	1.64	< 0.60
Aromatic >EC21-EC35	DETSC 3521#	1.4	mg/kg	9.36	< 1.40
Aromatic C5-C35	DETSC 3521*	10	mg/kg	10.99	< 10.00
TPH Ali/Aro Total C5-C35	DETSC 3521*	10	mg/kg	10.99	< 10.00
C24-C40 Lube Oil Range Organics (LORO)	DETSC 3311#	10	mg/kg	91	< 10
PAHs					
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.16	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	0.04	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.57	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	0.55	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.38	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	0.33	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.62	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.25	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.46	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.28	< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.05	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.33	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	4.0	< 0.10
Phenols					
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	< 0.3	< 0.3

Summary of Chemical Analysis

Soil Samples

Our Ref 25-23712
 Client Ref ~ PN254788
 Contract Title ~ Mold WWTW

Lab No	2582846	2582847
Sample ID ~	BH4	BH4
Depth ~	0.50-1.50	4.00
Other ID ~		
Sample Type ~	ES	ES
Sampling Date ~	09/10/2025	09/10/2025
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
VOCs					
Vinyl Chloride	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01

Summary of Chemical Analysis

Soil Samples

Our Ref 25-23712
 Client Ref ~ PN254788
 Contract Title ~ Mold WWTW

Lab No	2582846	2582847
Sample ID ~	BH4	BH4
Depth ~	0.50-1.50	4.00
Other ID ~		
Sample Type ~	ES	ES
Sampling Date ~	09/10/2025	09/10/2025
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
sec-butylbenzene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
Hexachlorobutadiene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01
SVOCs					
Phenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1

Summary of Chemical Analysis

Soil Samples

Our Ref 25-23712
 Client Ref ~ PN254788
 Contract Title ~ Mold WWTW

Lab No	2582846	2582847
Sample ID ~	BH4	BH4
Depth ~	0.50-1.50	4.00
Other ID ~		
Sample Type ~	ES	ES
Sampling Date ~	09/10/2025	09/10/2025
Sampling Time ~	n/s	n/s

Test	Method	LOD	Units		
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1	0.1
Di-n-octylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Subcontracted Analysis					
E. coli	\$*	10	cfu/g	<10	<10
Salmonella	\$*	25	cfu/g	N.D	N.D
Total coliforms	\$*	10	cfu/g	<10	<10
Enterococci	\$*	0		< 20.0	< 20.0
Clostridia	\$*	0	cfu/g	< 10.0	< 10.0
Faecal Streptococci	\$*	10	cfu/g	< 20.0	< 20.0

Summary of Asbestos Analysis

Soil Samples

Our Ref 25-23712

Client Ref ~ PN254788

Contract Title ~ Mold WWTW

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2582846	BH4 0.50-1.50	SOIL	NAD	none	Pierce Booth
2582847	BH4 4.00	SOIL	NAD	none	Pierce Booth

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * -not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 25-23712
 Client Ref ~ PN254788
 Contract ~ Mold WWTW

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date		Containers Received	Holding time exceeded for tests	Incorrect container for tests
		Sampled ~				
2582846	BH4 0.50-1.50 SOIL	09/10/25		GJ 250ml x3, GJ 60ml, PT 1L		
2582847	BH4 4.00 SOIL	09/10/25		GJ 250ml x3, GJ 60ml, PT 1L	Ammonia Aqueous Extract (3 days)	

Key: G-Glass P-Plastic J-Jar T-Tub

Normec DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 250µm sieve

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 2002	Organic matter	%	0.1	Air Dried	No	Yes	Yes
DETSC 2003	Loss on ignition	%	0.01	Air Dried	No	Yes	Yes
DETSC 2008	pH	pH Units	1	Air Dried	No	Yes	Yes
DETSC 2076	Sulphate Aqueous Extract as SO4	mg/l	10	Air Dried	No	Yes	Yes
DETSC 2084	Total Organic Carbon	%	0.5	Air Dried	No	Yes	Yes
DETSC 2119	Ammoniacal Nitrogen as N	mg/kg	0.5	Air Dried	No	Yes	Yes
DETSC 2130	Cyanide free	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2130	Cyanide total	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2130	Phenol - Monohydric	mg/kg	0.3	Air Dried	No	Yes	Yes
DETSC 2130	Thiocyanate	mg/kg	0.6	Air Dried	No	Yes	Yes
DETSC 2301	Arsenic	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC 2301	Barium	mg/kg	1.5	Air Dried	No	Yes	Yes
DETSC 2301	Beryllium	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC 2301	Cadmium Available	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2301	Cadmium	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2301	Cobalt	mg/kg	0.7	Air Dried	No	Yes	Yes
DETSC 2301	Chromium	mg/kg	0.15	Air Dried	No	Yes	Yes
DETSC 2301	Copper	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC 2301	Manganese	mg/kg	20	Air Dried	No	Yes	Yes
DETSC 2301	Molybdenum	mg/kg	0.4	Air Dried	No	Yes	Yes
DETSC 2301	Nickel	mg/kg	1	Air Dried	No	Yes	Yes
DETSC 2301	Lead	mg/kg	0.3	Air Dried	No	Yes	Yes
DETSC 2301	Selenium	mg/kg	0.5	Air Dried	No	Yes	Yes
DETSC 2301	Zinc	mg/kg	1	Air Dried	No	Yes	Yes
DETSC 2311	Boron (water soluble)	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC 2321	Total Sulphate as SO4	%	0.01	Air Dried	No	Yes	Yes
DETSC 2325	Mercury	mg/kg	0.05	Air Dried	No	Yes	Yes
DETSC 3049	Sulphur (free)	mg/kg	0.75	As Received	No	Yes	Yes
DETSC 3072	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3072	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETSC 3072	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETSC 3072	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETSC 3072	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes
DETSC 3303	Acenaphthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Acenaphthylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(b)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(k)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(g,h,i)perylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Dibenzo(a,h)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 3303	Indeno(1,2,3-c,d)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Naphthalene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Phenanthrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3311	C10-C24 Diesel Range Organics (DRO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	C24-C40 Lube Oil Range Organics (LORO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	EPH (C10-C40)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3321	Benzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Ethylbenzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Toluene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	m+p Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	o Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 28 + PCB 31	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 52	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 101	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 118	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 153	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 138	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 180	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB Total	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3521	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3521	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETSC 3521	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETSC 3521	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETSC 3521	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS. No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
--------	-----------	-------	--------------------	--------------------	----------------	------	--------

Key:

~ Sample details are provided by the client and can affect the validity of the results

* -not accredited.

-MCERTS (accreditation only applies if report carries the MCERTS logo).

\$ -subcontracted.

n/s -not supplied.

I/S -insufficient sample.

U/S -unsuitable sample.

t/f -to follow.

nd -not detected.

End of Report

Appendix E Chemical Data Sheets

Material Safety Data Sheet

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

1.1: Product Identifier

Product Name AQUATREAT 2084

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: NC Not Classified

Additional Information:

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

Label elements under CLP: NC Not Classified as Hazardous

Signal Words:

Hazard Pictograms:

Precautionary Statements

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

2.3: Other Hazards

Section 3: Composition information on hazardous ingredients

Hydrocarbons, C12 - C15, isoalkanes, cyclics <2% aromatics

EINECS	CAS No	Classification according to Regulation (EC) 1272:2008	Percent
920-107-4		H302; ASP Tox.1	20 - 45

Isotridecanol, ethoxylated

EINECS	CAS No	Classification according to Regulation (EC) 1272:2008	Percent
Polymer		H318;Eye Dam.1, H302; Acute Tox.4	<5

Section 4: First Aid Measures

4.1: Description of First Aid measures

Skin Contact: Wash off immediately with soap and plenty of water and remove any contaminated clothing. If persistent irritation occurs, seek medical advice

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. Seek medical attention immediately

Inhalation: Move to fresh air. No special first aid measures required.

4.2: Most important symptoms and effects both acute and delayed

Skin Contact: None under normal use

Eye Contact: None under normal use

Ingestion: None under normal use

Inhalation: None under normal use

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

None reasonably foreseeable.

Section 5: Fire fighting measures

5.1: Extinguishing media

Use fire extinguishers appropriate to the surrounding fire

Unsuitable Media

None

5.2: Special hazards arising from the substance/mixture

Oxides of Carbon and Nitrogen. Hydrogen cyanide may be produced as a result of combustion in an oxygen deficient atmosphere.

5.3: Advice for firefighters

Wear self contained breathing apparatus and protective clothing. Spills become extremely slippery when wet

Section 6: Accidental Release Measures

6.1: Personal precautions, protective equipment and emergency procedures

Wear appropriate PPE - See section 8

6.2: Environmental precautions

Do not allow spills to enter surface water drains and watercourses

6.3: Methods and Materials for containment and clean up

Soak up with inert material. Sweep and shovel into suitable closed containers and arrange disposal

6.4: References to other sections

Section 7.0: Handling and Storage

7.1: Precautions for safe handling

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

7.2: Conditions for safe storage.

Keep away from heat and sources of ignition. Do not allow the product to freeze. Incompatible with oxidising agents

7.4: Specific End Use(s)

Section 8: Exposure controls/Personal Protection

8.1: Control Parameters

None known

8 Hour TWA:

15MinSTEL:

8.2: Exposure Controls

Engineering Measures	Use local exhaust ventilation if misting occurs
Respiratory Protection	respiratory protective equipment is not normally required under normal conditions of use
Hand Protection	PVC or other plastic material gloves
Eye Protection	Safety glasses with side shields
Skin Protection	Coveralls or chemical apron

Section 9.0: Physical and Chemical Properties

9.1: Information on basic physical and chemical properties

State: Liquid
 Colour: Milky
 Odour: Aliphatic
 Specific Gravity: 1.05
 pH: 5 - 8 @5g/l

9.2: Other Information

Section 10: Stability and Reactivity

10.1: Reactivity

Stable under recommended conditions of storage and use

10.2: Chemical Stability

Stable under recommended conditions of storage and use

10.3: Possibility of Hazardous Reactions

None known

10.4: Conditions to Avoid

Heat, Sunlight and frost

10.5: Incompatible Materials

Oxidising Agents

10.6: Hazardous Decomposition Products

Oxides of Carbon and Nitrogen

Section 11: Toxicological Information

Aquatreat 2084

Dermal	Rat	LD50	>5000 mg/kg (estimated)
--------	-----	------	-------------------------

Aquatreat 2084

Oral	Rat	LD50	>5000 mg/kg (estimated)
------	-----	------	-------------------------

Section 12: Ecological Information

12.1: Toxicity

LC50/Oncorhyncus myKiss/ 96hours>100mg/l (estimated), EC50/Daphnia Magna/48 hours>100mg/l (estimated), IC50/Algae/72 hours>100mg/l(estimated)

12.2: Persistence and Biodegradable

Not readily biodegradable

12.3: Bioaccumulative Potential

This product is not expected to bioaccumulate

12.4: Mobility in Soil

No data available

12.5: Results of PBT and vPvB Assessment

Not according to the criteria of Annex XIII of REACH

12.6: Other adverse effects

None

Section 13: Disposal Information

Dispose of waste in accordance with local or national 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

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

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Polyaluminium chloride hydroxide sulphate (PAC)

Version 5.0
Revision Date 2010/12/03

Print Date 2010/12/03
MSDS code: MPAC100

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : Polyaluminium chloride hydroxide sulphate (PAC)
CAS-No. : 39290-78-3
EC-No. : 254-400-7

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

Use of the Substance/Mixture : At this time we do not yet have information on identified uses. They will be included in this safety data sheet when available.

Recommended restrictions on use : At that time we do not yet have information on use restrictions. They will be included in this safety data sheet when available.

1.3. Details of the supplier of the safety data sheet

Company : Brenntag UK & Ireland
Albion House, Rawdon Park
GB LS19 7XX Leeds Yeadon
Telephone : 0113 3879 200
Telefax : 0113 3879 280
E-mail address : msds@brenntag.co.uk

1.4. Emergency telephone number

Emergency telephone number : Emergency only telephone number (open 24 hours):
01865 407333 (N.C.E.C. Culham)

2. Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

REGULATION (EC) No 1272/2008			
Hazard class	Hazard category	Target Organs	Hazard statements

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Polyaluminium chloride hydroxide sulphate (PAC)

Version 5.0
Revision Date 2010/12/03

Print Date 2010/12/03
MSDS code: MPAC100

Hazard class	Hazard category	Target Organs	Hazard statements
Skin corrosion/irritation	Category 2		H315
Serious eye damage/eye irritation	Category 2		H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Directive 67/548/EEC or 1999/45/EC	
Hazard symbol / Category of danger	Risk phrases
Irritant (Xi)	R36/38

For the full text of the R-phrases mentioned in this Section, see Section 16.

Most important adverse effects

- Human Health : See section 11 for toxicological information.
No further information available.
- Physical and chemical hazards : See section 9 for physicochemical information.
No further information available.
- Potential environmental effects : See section 12 for environmental information.
No further information available.

2.2. Label elements**Labelling according to Regulation (EC) No 1272/2008**

- Hazard symbols : 
- Signal word : Warning
- Hazard statements : H315 Causes skin irritation.
H319 Causes serious eye irritation.

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Polyaluminium chloride hydroxide sulphate (PAC)

Version 5.0
Revision Date 2010/12/03

Print Date 2010/12/03
MSDS code: MPAC100

Precautionary statements

General	:	P264	Wash hands thoroughly after handling.
		P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
		P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
		P332 + P313	If skin irritation occurs: Get medical advice/ attention.
		P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P337 + P313	If eye irritation persists: Get medical advice/ attention.

Additional Labelling:

EUH210 Safety data sheet available on request.

Hazardous components which must be listed on the label:

|| • Aluminum chloride hydroxide sulfate

2.3. Other hazards

No other information is available.

3. Composition/information on ingredients**3.1. Substances**

Chemical nature : Aqueous solution

Chemical Name	Identification Number	Amount [%]
Aluminum chloride hydroxide sulfate	CAS-No. : 39290-78-3	< 100
	EC-No. : 254-400-7	

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Polyaluminium chloride hydroxide sulphate (PAC)

Version 5.0
Revision Date 2010/12/03

Print Date 2010/12/03
MSDS code: MPAC100

4. First aid measures

4.1 Description of first aid measures

- General advice : Take off all contaminated clothing immediately.
- In case of skin contact : Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No further information available.
- Effects : No further information available.

4.3 Indication of immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.
No further information available.

5. Fire-fighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : No information available.

5.2. Special hazards arising from the substance or mixture

- Specific hazards during fire : The product itself does not burn.

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Polyaluminium chloride hydroxide sulphate (PAC)

Version 5.0
Revision Date 2010/12/03

Print Date 2010/12/03
MSDS code: MPAC100

Advice on safe handling : Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.
Hygiene measures : Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feedingstuffs. When using do not eat or drink.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep in an area equipped with acid resistant flooring. Use acid resistant materials only. Use chloride resistant materials only. Keep container tightly closed.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on common storage : Store separate from acidic- and chloride sensitive materials.

German storage class : 8B: Non-combustible substances, corrosive

Storage temperature : 0 - 30 °C

7.3 Specific end uses

Specific use(s) : No information available.

8. Exposure controls/personal protection

8.1. Control parameters

Component: Aluminum chloride hydroxide sulfate

**CAS-No.
39290-78-3**

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Polyaluminium chloride hydroxide sulphate (PAC)

Version 5.0
Revision Date 2010/12/03

Print Date 2010/12/03
MSDS code: MPAC100

Other OELs

Regulatory Basis	:	UK, EH40 Workplace Exposure Limits (WELs)
Regulatory List	:	EH40 WEL
Value type	:	Time Weighted Average (TWA):
Value	:	2 mg/m ³

8.2. Exposure controls

Engineering measures

Refer to protective measures listed in sections 7 and 8.

Personal protective equipment

Respiratory protection

Advice : Breathing apparatus needed only when aerosol or mist is formed.

Hand protection

Advice : Neoprene gloves
Protective gloves should be replaced at first signs of wear.

Glove thickness : 0.75 mm

Eye protection

Advice : Tightly fitting safety goggles

Skin and body protection

Advice : Protective suit

Environmental exposure controls

General advice : No special precautions required.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

*SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006****Polyaluminium chloride hydroxide sulphate (PAC)***Version 5.0
Revision Date 2010/12/03Print Date 2010/12/03
MSDS code: MPAC100

Form	: liquid
Colour	: clear to slight cloudy
Odour	: odourless
Odour Threshold	: Currently we do not have any Information from our supplier about this.
pH	: 2 - 3 20 °C
Freezing point	: -12 °C
Boiling point	: > 100 °C
Flash point	: not applicable
Evaporation rate	: Currently we do not have any Information from our supplier about this.
Flammability (solid, gas)	: Currently we do not have any Information from our supplier about this.
Upper explosion limit	: Currently we do not have any Information from our supplier about this.
Lower explosion limit	: Currently we do not have any Information from our supplier about this.
Vapour pressure	: Currently we do not have any Information from our supplier about this.
Relative vapour density	: Currently we do not have any Information from our supplier about this.
Density	: ca. 1.192 - 1.3 g/cm ³ 20 °C
Water solubility	: completely soluble
Partition coefficient: n-octanol/water	: Currently we do not have any Information from our supplier about this.
Ignition temperature	: Currently we do not have any Information from our supplier about this.
Thermal decomposition	: Currently we do not have any Information from our supplier about this.

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Polyaluminium chloride hydroxide sulphate (PAC)

Version 5.0
Revision Date 2010/12/03

Print Date 2010/12/03
MSDS code: MPAC100

Viscosity, kinematic : Currently we do not have any Information from our supplier about this.
Explosive properties : Currently we do not have any Information from our supplier about this.
Oxidizing properties : Currently we do not have any Information from our supplier about this.

9.2 Other information

No further information available.

10. Stability and reactivity

10.1. Reactivity

Advice : No information available.

10.2. Chemical stability

Advice : No decomposition if stored and applied as directed.
No further information available.

10.3. Possibility of hazardous reactions

Hazardous reactions : No information available.

10.4. Conditions to avoid

Conditions to avoid : Extremes of temperature and direct sunlight.

10.5. Incompatible materials

Materials to avoid : Oxidizing agents
Bases

10.6. Hazardous decomposition products

Hazardous decomposition products : Oxygen
hydrogen chloride

11. Toxicological information

11.1. Information on toxicological effects

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Polyaluminium chloride hydroxide sulphate (PAC)

Version 5.0
Revision Date 2010/12/03

Print Date 2010/12/03
MSDS code: MPAC100

Product:	CAS-No. 39290-78-3
Acute toxicity	
Oral	
Value type	: LD50
Value	: > 5,000 mg/kg
Species	: rat
Irritation	
Skin	
Remarks	: Irritating to skin.
Eyes	
Remarks	: Irritating to eyes.
Sensitisation	
Remarks	: No sensitizing effect known.

12. Ecological information

12.1. Toxicity

Component: Aluminum chloride hydroxide sulfate	CAS-No. 39290-78-3
Acute toxicity	
Fish	
Species	: Leuciscus idus (Golden orfe)
Exposure Time	: 48 h
Value type	: LC50

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Polyaluminium chloride hydroxide sulphate (PAC)

Version 5.0
Revision Date 2010/12/03

Print Date 2010/12/03
MSDS code: MPAC100

||Value : ca. 1,500 mg/l

12.2. Persistence and degradability

12.3. Bioaccumulative potential

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

Product:	CAS-No. 39290-78-3
Additional ecological information	

Remarks : Solutions with low pH-value must be neutralized before discharge.
Ecological injuries are not known or expected under normal use.

13. Disposal considerations

13.1. Waste treatment methods

Product : Can be disposed as waste water, when in compliance with local regulations.

Contaminated packaging : Empty remaining contents. Rinse with plenty of water. Store containers and offer for recycling of material when in accordance with the local regulations.

European Waste Catalogue Number : No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

14. Transport information

14.1. UN number

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Polyaluminium chloride hydroxide sulphate (PAC)

Version 5.0
Revision Date 2010/12/03

Print Date 2010/12/03
MSDS code: MPAC100

3264

14.2. UN proper shipping name

ADR : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
(Aluminum chloride hydroxide sulfate)

RID : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
(Aluminum chloride hydroxide sulfate)

IMDG : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
(Aluminum chloride hydroxide sulfate)

14.3. Transport hazard class(es)

ADR-Class : 8
(Labels; Classification Code; Hazard
identification No; Tunnel restriction code) 8; C1; 80; (E)

RID-Class : 8
(Labels; Classification Code; Hazard
identification No) 8; C1; 80

IMDG-Class : 8
(Labels; EmS) 8; F-A, S-B

14.4. Packaging group

ADR : III

RID : III

IMDG : III

14.5. Environmental hazards

Labeling according to 5.2.1.8 ADR : no

Labeling according to 5.2.1.8 RID : no

Labeling according to 5.2.1.6.3 IMDG : no

Classification as environmentally
hazardous according to 2.9.3 IMDG : no

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Polyaluminium chloride hydroxide sulphate (PAC)

Version 5.0
Revision Date 2010/12/03

Print Date 2010/12/03
MSDS code: MPAC100

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IMDG : Not applicable.

15. Regulatory information

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

15.2. Chemical Safety Assessment

Currently we do not have any Information from our supplier about this.

16. Other information

Full text of R-phrases referred to under sections 2 and 3.

R36/38 Irritating to eyes and skin.

Full text of H-Statements referred to under sections 2 and 3.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Further information

Other information : The information provided in this Safety Data Sheet is correct to

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Polyaluminium chloride hydroxide sulphate (PAC)

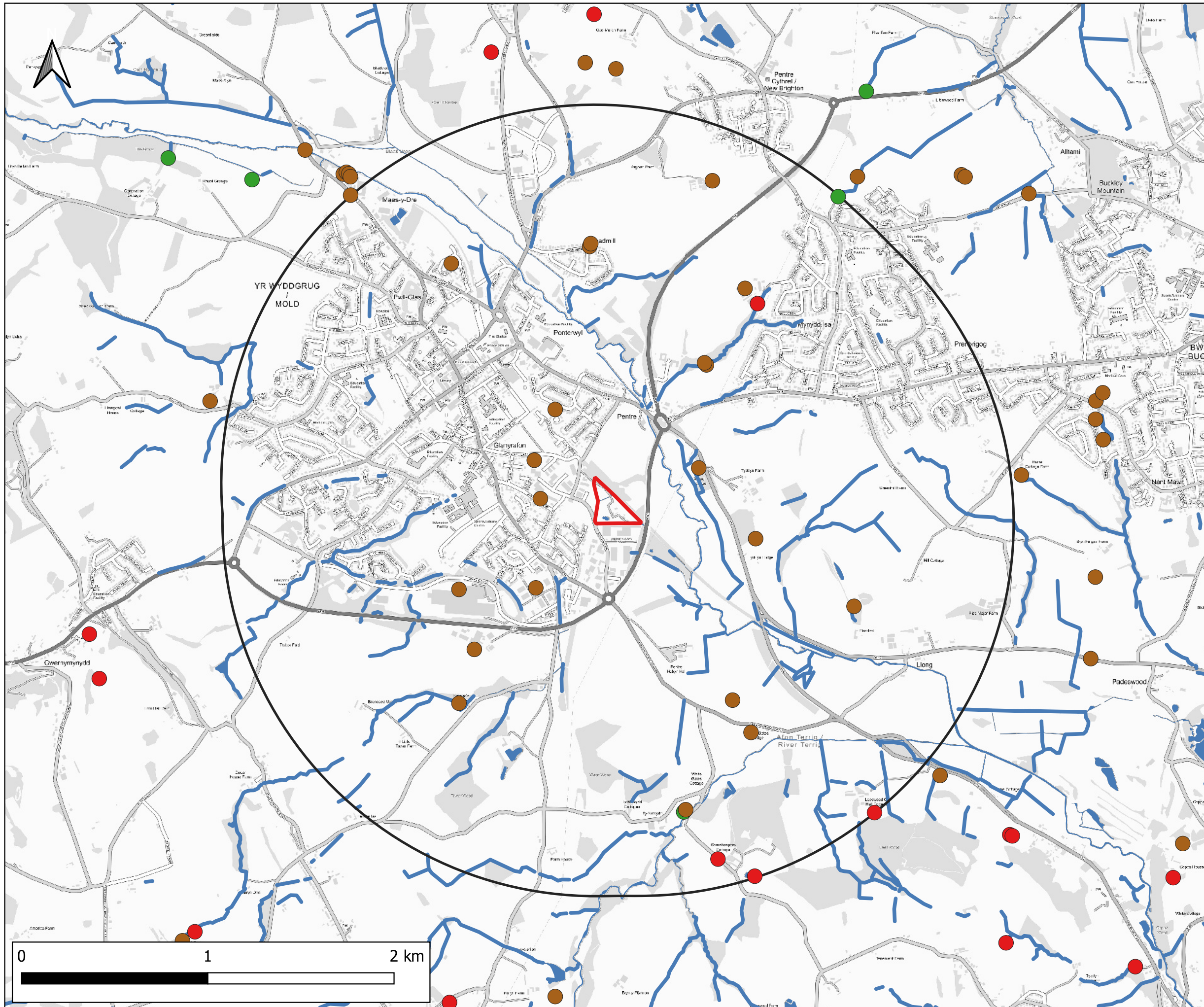
Version 5.0
Revision Date 2010/12/03

Print Date 2010/12/03
MSDS code: MPAC100

the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Restricted to professional users. Attention - Avoid exposure - obtain special instructions before use.

|| Indicates updated section.

Appendix F Water Features Survey



Notes:
1) All dimensions are in metres and all levels in metres above Ordnance Datum unless stated otherwise

LEGEND

- Site Boundary
- 2km buffer
- Watercourses
- Waterbodies
- BGS Boreholes and Wells
- Water Wells
- Springs

CLIENT: Eric Wright Water

www.waterco.co.uk

SCHEME: Mold WwTW

PLOT TITLE: Water Features Plan
2km Buffer

PLOT STATUS: FINAL		DATE: 10-04-2026
DRAWN: JP	CHECKED: AW	APPROVED: AW
PLOT NAME: 16011_Water_Features_Plan		PLOT SCALE AT A3: 1:20000
REVISION: -		