

WYE ENVIRONMENTAL PRODUCTS AND SERVICES LTD
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SITE REPORT

Date: 29/09/2025

AUTHOR: Tim Fycun

SITE: The Willows, Barecroft Common, Magor, Monmouthshire. NP26 3EB

CLIENT: Aaron Ford

PROBLEM: Site Visit and Tank Inspection

TEST DATE: 29th September 2025

REPORT

The Willows is an existing domestic dwelling located on the outskirts of Magor, Monmouthshire.

The property is serviced by an Off Mains sewage system as there is no access to mains sewer facilities in the local area. The property is being renovated and modernised and when completed will be a 4 Bed domestic dwelling. The property as a 4 Bed domestic residence is classified as 6 persons using British Water Flows and Loads. The maximum daily flow from the property based on British Water Flows and Loads is (6 x 150L/Day) 0.9m³ (900L). The site is within 500m of a SSSI so will need to apply for a discharge license from NRW (Natural Resources Wales).

The foul drainage runs from the rear of the property through a manhole chamber to a cesspit tank located in the front garden.

The cesspit tank is a Brick/Block built type septic tank and predates 1983 and the introduction of building regulations. The tank is a single chamber with one access cover. The tank is 3.2m long x 3m wide x 1.5m deep (Below invert) giving a capacity of around 14.4m³. The tank is a holding tank with no outlet. The tank was emptied in February and the property has been empty since then. On the day of inspection the tank was nearly full of water and from what can be seen appears to have groundwater and or surface water ingress. This means that the tank as inspected would be classified as a failing system.

The ground on site is of a clay type soil and the water table is approx. 1m below ground level. This means that the site would not be suitable for a conventional drainage field. There is a running watercourse/Reen at the front of the property. I would propose installing a high quality sewage treatment plant and discharge to the running watercourse. I would recommend installing the Graf One2Clean sewage treatment plant which is a SBR type plant with a high quality effluent standard after treatment. I believe this would be betterment to the failing system already in place. This would of course be subject to NRW approval.



PIA
Prüfinstitut für
Abwassertechnik
GmbH

PERFORMANCE RESULTS

Otto Graf GmbH
Carl-Zeiss-Str. 2 - 6, 79331 Teningen, Germany
EN 12566-3
Small wastewater treatment systems for up to 50 PT
Small wastewater treatment system one2clean
SBR plant in one two-zone polypropylene tank
Test report PIA2014-216B14.01.e

Nominal organic daily load*	0.27	kg/d		
Nominal hydraulic daily load	0.75	m ³ /d		
Material	polypropylene			
Treatment efficiency (nominal sequences)		Efficiency	Effluent	
	COD	94.2 %	43 mg/l	
	BOD ₅	98.0 %	7 mg/l	
	SS	96.3 %	14 mg/l	
	NH ₄ -N**	98.3 %	0.5 mg/l	
	N _{ox} **	87.0 %	7.9 mg/l	
	P _{tot}	80.2 %	1.6 mg/l	
Electrical consumption	0.63	kWh/d		

*at a test influent of ≥ 300 mg/l BOD₅ (mean)
**determined for temperatures ≥ 12°C in the bioreactor

Performance tested by:

PIA – Prüfinstitut für Abwassertechnik GmbH
(PIA GmbH)
Hergenrather Weg 30
52074 Aachen, Germany

This document replaces neither the declaration of performance nor the CE marking.



Notified Body
No. 1739



Certified according to
ISO 9001:2008



ISO 14001



Deutsche
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für
Dienstleistungen
DIN EN ISO 9001



Prüfinstitut für Abwassertechnik GmbH
geprüft - getestet - tested

Elmar Lencé November 2014

Graf One2Clean Test Certificate; BOD 7mg/L, Suspended Solids 14mg/L, Ammonia NH₄ 7.9mg/L, Phosphate 1.6mg/L

SITE PICTURES



Pic 1 The Willows, Barecroft Common



Pic 2 Cesspit Tank



Pic 3 Picture of Water inside Cesspit Tank (Signs of water ingress)



Pic 4 Inlet Pipework to Cesspit Tank



Pic 5 Running Watercourse to front of property.