

CALCULATION SHEET

BERRYS

Project Number:	SA44648	Site:	Ty Mawr, Pontfadog
Calcs by:	R.Harman IEng FIHE	Status (Prelim/Fi	Final
Checked by:	R.Harman IEng FIHE	Date:	30/08/2022

Design Element: Off-mains foul drainage calculations

Ref	Calculations	Remarks/Output

Foul STP population calculations

Flows and Loads 4	Holiday cottage 1 - 2 beds, so 4P. Holiday cottage 2 - 3 beds so 5P. Ty Mawr, existing house 3 beds so 5P. 14P total, apply 0.9 balancing factor = 12.6P so 13P.	13P total accommodation, min. 13 Person system required.
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Treatment Plant Enquiry Sheet - Individual Systems

Waste source	No of rooms	Occupancy	No	Flow l/day		BOD Grams/day		NH ₃ (Amonina)	
				Per head	Total	Per head	Total	Per head	Total
Standard Residential	5	13	1	150	1950	60	780	8	104

BS6297:2007 Infiltration Tests - May 2022 test, refer to test record sheet

Test hole 1:
Test 1 (300mm fill depth) 34 mins (2040 / 150) Vp = 13.6
Test 2 (300mm fill depth) 42 mins (2520 / 150) Vp = 16.8
Test 3 (300mm fill depth) 45.5 mins (2730 / 150) Vp = 18.2
Test hole 2:
Test 4 (300mm fill depth) 37 mins (2220 / 150) Vp = 14.8
Test 2 (300mm fill depth) 39 mins (2340 / 150) Vp = 15.6
Test 3 (300mm fill depth) 42 mins (2520 / 150) Vp = 16.8
AVERAGE Vp = 16.0

Drainage field floor area m² = Vp x 0.25 x P 16.0 x 0.25 x 13.0 52.0m² /0.9 57.8m x 0.9m trench