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 GmbH

Confirmation of the practical test on basis of the French Regulation
NOR: DEVO0809422A, Annex 2, Table 1 phases 11 and 12

We herewith confirm that the company BIOROCK International GmbH performed a practical test of the small wastewater treatment plant Biorock-D5, on basis of the requirements of the French Regulation NOR: DEVO0809422A, Annex 2, Table 1 phases 11 and 12 described therein.

The test began on the 9th of November 2009, subsequent to the 38 weeks test and a desludging. The test ended on the 20th December 2009. The treatment plant was made of polyethylene and loaded with a nominal hydraulic flow of 0.75 m³/d domestic wastewater and an average organic load of 0.23 kg BOD₅/d on the testing field of the PIA GmbH in Aachen. More information can be found in the report on the treatment efficiency test No PIA2009-119B41SB of BIOROCK International GmbH.

The special test includes the two different periods of loading.

- Overloading : 200 % of the nominal loading "phase 11"
- Weekend loading: 100 % of the daily hydraulic load "phase 12"

Table: Results of the test under overloading (200 %) and weekend loading (100 %) conditions

Test schedule	Test sequence		11	11	11	11	12	12
	Loading		200 %	200 %	200 %	200 %	WL (100 %)	WL (100 %)
	Date		14.11.2009	19.11.2009	26.11.2009	03.12.2009	13.12.2009	20.12.2009
Air Temperature min/max	[°C]	2/15	6/13	8/12	4/9	-3/6	-13/0	
Influent:								
COD	[mg/l]	836	924	1044	920	1048	584	
BOD5	[mg/l]	409	342	396	423	464	231	
NH4-N	[mg/l]	38	37	29	41	27	39	
Ptot	[mg/l]	9.1	8.8	5.9	9.5	9.0	7.8	
pH	[-]	7.0	7.2	7.3	7.1	7.0	7.1	
SS	[mg/l]	434	584	352	522	618	306	
Settleable solids120	[ml/l]	32	40	20	29	59	17	
Effluent:								
COD	[mg/l]	39	50	61	57	22	29	
BOD5	[mg/l]	19	21	17	16	8	11	
NH4-N	[mg/l]	10.3	10.0	1.2	13.5	8.7	7.0	
NO3-N	[mg/l]	16.8	16	11.4	13.3	22.3	25.1	
Ptot	[mg/l]	3.5	4.4	4.0	2.2	3.5	2.6	
pH	[-]	6.5	7.1	6.9	7.0	6.7	6.6	
SS	[mg/l]	35	16	15	18	20	19	
Settleable solids120	[ml/l]	0.4	< 0.1	< 0.1	< 0.1	0.5	0.5	


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