



QUALITY ASSURANCE SERVICES

Report on Testing of AWTS Units

Septech Industries Australia Pty Ltd
Septech Purification NSW Pty Ltd

Turbojet 2000

Testing of the Septech Turbojet 2000 Domestic AWTS was conducted at the Moss Vale Sewerage Treatment Plant (STP), under the provisions of the NSW Health Department Aerated Wastewater Treatment Systems (AWTS) Accreditation Guideline (Part 3, Clause 95B Local Government (Approvals) Regulation, 1993). The guideline was issued in September 1998 and is read in conjunction with the explanatory memo of 3 September 1998 and the Interpretation Document of 2 December 1998.

The performance evaluation was conducted at the Moss Vale STP using sewage diverted from the STP inflow after coarse screening.

Testing in accordance with the guideline was conducted in the following weeks:

28th February to 3rd March 2000,
23rd to 27th May 2000
3rd to 7th July 2000

An Interim report on the testing was submitted to The NSW Health Department on 27th March 2000. As a result of this report, sampling for BOD₅ and suspended Solids from the pump out chamber was accepted for performance evaluation of the unit.

Following are the test results for the three test periods (consolidated):

Influent Characteristics:

Date	BOD ₅ (mg/L)	Suspended Solids (mg/L)	Total Nitrogen (mg N/L)	Phosphorus (mg/L)	Daily Loading (Litres/day) Estimated
28/2/00	125	280	52	7.7	1800
29/2/00	155	203	49	8.6	2138
1/3/00	160	235	53	9.0	2137
2/3/00	160	213	47	8.7	2137
3/3/00	175	253	47	8.5	1463

23/5/00	240	325	77	12.0	1800
24/5/00	243	370	80	13.0	2137
25/5/00	360	320	74	11.0	2137
26/5/00	168	325	65	12.3	2138
27/5/00	118	330	67	10.5	1463
3/7/00					1800
4/7/00	109	170	39	4.8	2138
5/7/00	140	165	49	6.5	2138
6/7/00	145	278	58	8.5	2137
7/7/00	153	273	57	1.8	1462
Averages	174.9	267.0	58.0	8.76	

Effluent Characteristics (Sampled from Pump out Chamber):

Characteristic	Results	Maximum	Average	Comments
BOD ₅	99.86% < 20 mg/L 90% < 11.9 mg/L	23 mg/L	5.9 mg/L	Pass
Suspended Solids	All < 30mg/L 90% < 13.3 mg/L	19 mg/L	8.1 mg/L	Pass
Faecal Coliforms	90% < 11 cfu/ 100ml 100% < 100 cfu/100ml	42 cfu/100ml	2.2 cfu/100ml	Pass
Dissolved Oxygen	100 % > 2.0 mg/L	Minimum 4.0 mg/L	7.51 mg N/L	Pass
Free Residual Chlorine	None < 0.2 mg/L None > 2.0 mg/L	1.7 mg/L Minimum. 0.2 mg/L	066 mg/L	Pass

As can be seen from the above tables the unit produces an effluent that meets the requirements of the Guideline.

Attached are copies of:

1. Summary of test results (QAS summary).
2. Test Reports from Microtech Laboratories (NSW) Pty Ltd, for test periods 2 and 3. Test reports for the test period 1 have been submitted in previous reports.

Please contact me if you need any further explanation or information.

Yours faithfully

Garry Kimble

Garry Kimble
Project Coordinator, **Health and Safety Products**

(8/8/00)