University of Minnesota

Twin Cities Campus

St. Anthony Falls Laboratory Engineering, Environmental and Geophysical Fluid Dynamics

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President & CEO, Otterbine Barebo, Inc. 3840 Main Road East Emmaus, PA 18049

Reference:

Letter Report No. 00-03(Revised)

By Julie Robinson and Chris Ellis Prepared for Otterbine Barebo, Inc.

Subject:

Aeration and Flowrate Analysis for Otterbine Barebo Fountain Aerators

Dear Mr. Barebo:

This letter is our report for the above referenced testing completed at St. Anthony Falls Laboratory during the period November 1999 - September 2000.

SUMMARY

Testing was conducted on two fountain aerators to determine the Standard Oxygen Transfer Rate (SOTR), the Standard Aerating Efficiency (SAE), and the flowrate for use by Otterbine Barebo, Inc. The laboratory testing indicates that the results for the Concept₃ 1 Hp High Volume and the Concept₃ 1 Hp Sunburst aerators are as follows:

Concept ₃ 1 Hp High Volume				
SOTR (lb/hr)	Power (kW)	SAE (lb/kW-hr)	Flowrate (GPM)	
3.28	1.51	2.17	921	

Concept ₃ 1 Hp Sunburst				
SOTR (lb/hr)	Power (kW)	SAE (lb/kW-hr)	Flowrate (GPM)	
2.74	1.96	1.40	530	

DISCLAIMER:

These tests were carried out under controlled laboratory conditions. The selection and installation of any of these products at any project site will of necessity incorporate site specific concerns, and therefore must be reviewed by and be the responsibility of a qualified, registered engineer on an individual project basis. Because it cannot control field installation, the St. Anthony Falls Laboratory, University of Minnesota, does not endorse the use of any specific product on which it has performed testing.