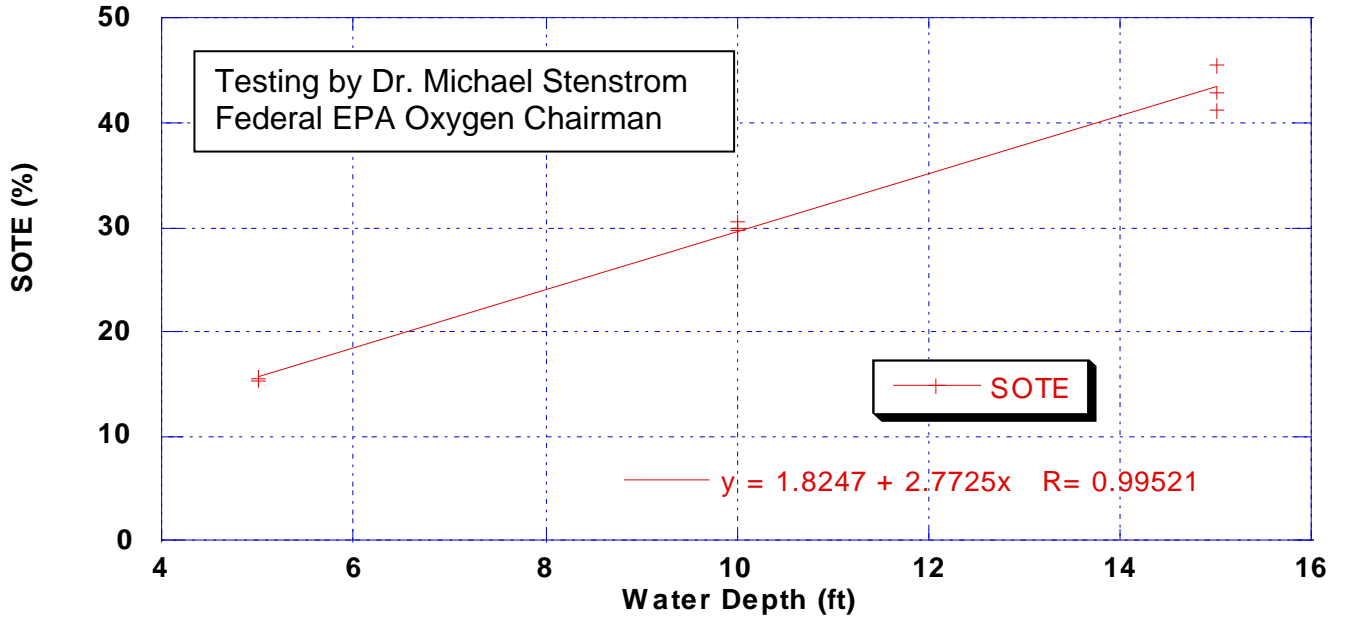


EP Aeration proudly uses ADS® tubing as our air diffusers of choice. The following are results of recent testing showing the Oxygen Transfer Efficiency of the LWA-1.5 tubing

Air Diffusion Systems “ASCE” Clean Water Testing using 98% DO saturation for LWA-1.5 weighted fine bubble tubing



Air Diffusion Systems Wire-Drawn Horsepower at different motor efficiencies for LWA-1.5 weighted fine bubble tubing

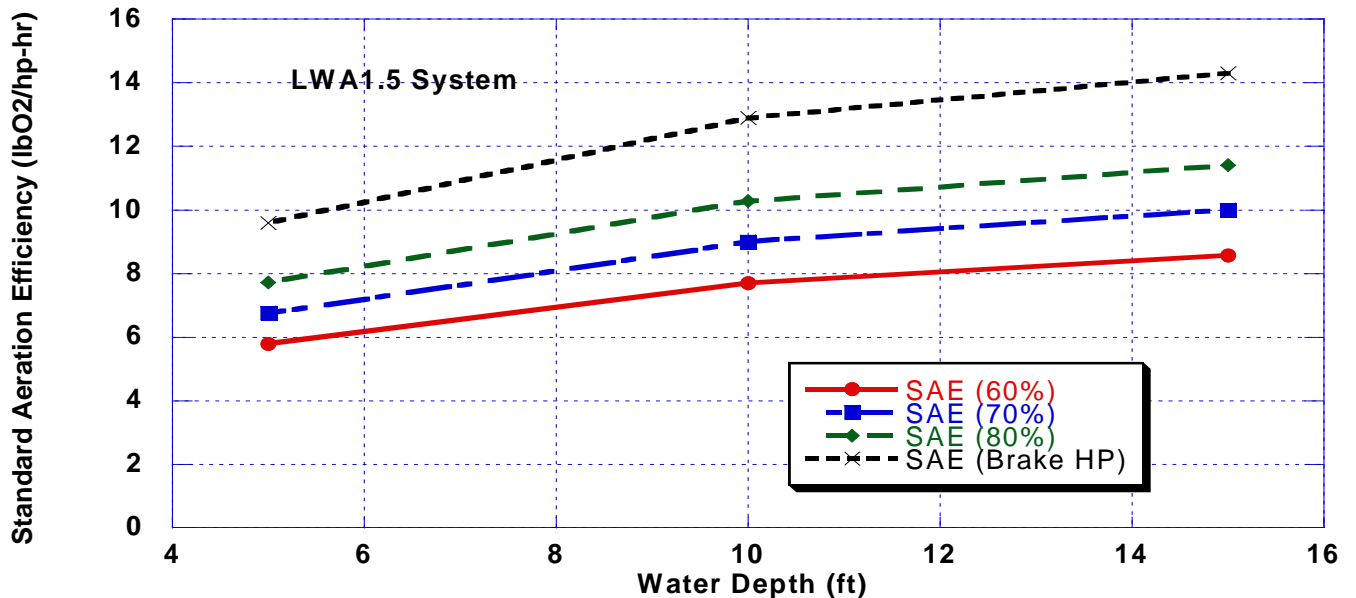


Table 1. Summary of Test Results

Test	Water Depth (ft)	Diffuser Slits	Air Flow (SCFM)	K _L A (hr ⁻¹)	C* _∞ (mg/L)	SOTE (%)	SOTR (lb/hr)	de (ft)	SAE (60%)	SAE (70%)	SAE (80%)	SAE (Brake HP)
4	15	14	0.0236	2.73	10.61	46.3	0.0113	5.6	9.2	10.8	12.3	15.4
1	15	14	0.0472	5.52	10.67	47.1	0.0230	5.8	9.1	10.6	12.2	15.2
2	15	14	0.0472	5.53	10.67	47.1	0.0230	5.8				
3	15	14	0.0472	5.49	10.79	47.4	0.0232	6.2				
5	15	14	0.0944	6.76	10.75	29.1	0.0285	6.1	5.4	6.3	7.2	9.0
12	10	14	0.0236	2.86	10.04	30.5	0.0075	3.5	7.8	9.2	10.5	13.1
9	10	14	0.0472	4.35	10.08	23.3	0.0114	3.6	5.7	6.7	7.6	9.5
10	10	14	0.0472	4.34	10.06	23.2	0.0114	3.5				
11	10	14	0.0472	4.27	10.06	22.9	0.0112	3.6				
13	10	14	0.0944	6.33	10.13	17.1	0.0167	3.8	4.0	4.7	5.3	6.7
23	5	14	0.0236	3.38	9.560	17.6	0.0043	1.7	6.6	7.7	8.8	11.0
20	5	14	0.0472	5.27	9.489	13.3	0.0065	1.5	4.6	5.4	6.2	7.7
21	5	14	0.0472	5.24	9.473	13.2	0.0065	1.4				
22	5	14	0.0472	5.08	9.526	12.9	0.0063	1.6				
24	5	14	0.0944	7.45	9.525	9.7	0.0095	1.6	3.2	3.7	4.2	5.3
6	15	6	0.02025	2.01	10.94	41.1	0.0086	6.8	8.6	10.0	11.4	14.3
7	15	6	0.02025	2.23	10.93	45.5	0.0095	6.7				
8	15	6	0.02025	2.11	10.90	42.9	0.0090	6.6				
14	10	6	0.02025	2.42	10.18	30.6	0.0064	4.0	7.7	9.0	10.3	12.9
15	10	6	0.02025	2.35	10.16	29.6	0.0062	3.9				
16	10	6	0.02025	2.37	10.17	29.9	0.0063	3.9				
17	5	6	0.02025	2.64	9.504	15.6	0.0033	1.5	5.8	6.8	7.7	9.6
18	5	6	0.02025	2.61	9.507	15.4	0.0032	1.5				
19	5	6	0.02025	2.61	9.463	15.4	0.0032	1.4				

All data was analyzed using the ASCE Standard recommended procedures. In fact, the example Visual Basic/Excel program referenced in the Standard was used (available for download at fields.seas.ucla.edu).

TEST RESULTS

The graph shows Standard Oxygen Transfer Rates (SOTE, as defined by the ASCE Standard, which is the mass transfer efficiency at standard conditions: 0 mg/L DO, 20°C, tap water, 760 mm Hg, etc.) for LWA1.5 tubing. The efficiency is approximately 3% per foot. The replicate test results at the 5-foot depth are so similar that the 3 symbols appear as a single symbol. At the 15-foot depth, greater variation is observed, which will be discussed later. The straight line on the graph is a best-fit, least squares regression of the test results. It is provided for convenience in scaling for different depths.