3049 Enterprise Drive

State College, PA 16801

Clear Water Enviro Technologies 1054 Kapp Drive Clearwater, FL 34625 December 15, 1997

Dear Gentleman.

Following are the results of both lab and field testing of your Scale Blaster SB 50 device.

Using a soap drop titration test utilizing tinture of green soap on a water supply containing an initial hardness of 345 ppm as CaCO3 in a 150 ml sample of water, results ranged from 27 drops into rawwater-22 drops into water processed only through the SB 50 coiled around a 3/44 pipe (PVC) to produce equal amounts of soap suds (a reduction of 19%) to 29 drops into raw water-22 drops into processed water to produce equal amounts of suds. (a reduction of 25% less soap processed through the SB 50)

A 90 day field test resulted in a noticable difference in the over all feel of the water similar to that of a convential salt softening system. Skin was less dry and hair was softer using less soap and shampoo. Soap curd and seum rings in the tub and shower were greatly reduced. Most noticable was the loosing and gradual disappearance of the hard water lime scale deposits on plumbing fixtures, shower heads etc. No salt, chemicals, additives or maintenance were necessary after installationand required a very small amount of installation space. The field test unit was installed on water ranging from 258 ppm to 425 ppm depending on the wells being used by the municipal water company. The white lime scale did not return after the unit had "cleaned" the plumbing. Instead, the precipitation that resulted was in the form of a white powder which was easily wiped away with out chemical solvents; a result of the SB 50's transforming the initial calcite molecule into the aragonite molecule, giving it the different physical properties that produced the above lab and field results.

In general, the Scale Blaster SB 50 tested to be an effective and economical alternative to conventional chemical and salt softening with out the maintenance and expense of a conventional salt system. In addition, the fact that sodium is not introduced into the water like a conventional softener could be considered by many to be a health benefit. The Scale Blaster SB 50 should be considered when looking to address the problems associated with hard water caused by calcium-lime minerals.

Sincerely.

Dan P. Faul

3049 Enterprise Drive

State College, PA 16801

December 15, 1997

Clear Water Enviro Technologies 1054 Kapp Drive Clearwater, FL 34625

Test Results: Scale Blaster SB 50

Test Date - October 15, 1997

Volume of water used in each sample test - 150 ml Soap Reagent - Lamotte Labs tinture of green soap

 $Tinture\ of\ green\ soap\ test\ -\ drop\ titration\ -\ performed\ on\ untreated\ water\ hard\ water\ and\ compared\ to\ samples\ treated\ only\ throught\ the\ SB\ 50.$

TEST # 1	untreated sample treated sample	27 drops 22 drops	suds formed equal suds formed % Reduction - 19%
TEST # 2	untreated sample treated sample	29 drops 22 drops	suds formed equal suds formed % Reduction -25%
TEST #3	unrtreated sample treated sample	28 drops 22 drops	suds formed equal suds formed % Reduction - 22%
TEST # 4	untreated sample treated sample	29 drops 22 drops	suds formed equal suds formed % Reduction - 25%

Submitted.

David Faulds Project Manager

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

OFFICE OF MANAGEMENT AND TECHNICAL SERVICES

BUREAU OF LABORATORIES

Certifies that

TODD GIDDINGS & ASSOCIATES INC 3049 ENTERPRISE DRIVE STATE COLLEGE PA 16801 14-321

having duly met the requirements of Chapter 109, Subchapter H, Safe Drinking Water Rules and Regulations issued under the Pennsylvania Safe Drinking Water Act of May 1, 1984 (P.L. 206, No. 43), (35 P.S. SS 72.1.1 - 721.17) is hereby approved as a

Certified Drinking Water Laboratory

to perform the following analyses:

Microbiology

Expiration Date: 10/31/97

Certificate not transferable Surrender upon revocation To Be Conspicuously Displayed at the Laboratory

Floyd Kefford, Bureau Director