



University of South Florida, 140 Seventh Avenue South, St. Petersburg, FL 33701
(727) 553-1009 fax (727) 553-3967

September 21, 2004

Laurence Salamey
Inductive Pump Corporation
P.O Box 326
Barneveld, New York 13304

Dear Mr. Salamey

The University of South Florida's Center for Ocean Technology has been developing underwater mass spectrometers for in-situ chemical analysis of saltwater and fresh water systems for several years. Initially we used a peristaltic pump in our water sampling system. For approximately the last two years we have used the Inductive Pump Corporation Model DW120 pump for in-situ chemical analysis on our underwater mass spectrometry system. We have chosen to incorporate this innovative design into our water sampling membrane introduction system for two primary reasons: (1) it provides pumping speeds (1-10 ml/min) that are ideal for our membrane interface; and (2) since there are no moving seals, it allows us to sample at depths greater than 1000 meters. We have deployed our underwater mass spectrometers on unmanned underwater vehicles in a variety of circumstances and have performed depth profiles from manned research vessels. To date we have deployed the system down to 205 meters. Future underwater mass spectrometer designs will allow deployment at much greater depths and we hope to ultimately use these systems on ocean observing networks.

We have appreciated your dedication to making this variation of your magnetically coupled piston pumps a functional and integral part of our sampling system. We might note as well that Applied Microsystems, Ltd. in Sidney British Columbia, CA has licensed our underwater mass spectrometry technology and is incorporating the Model DW120 pump into their commercial underwater mass spectrometers.

Sincerely,

R. Timothy Short
PI, Underwater Mass Spectrometry Project
Center for Ocean Technology
University of South Florida
tshort@marine.usf.edu
727 553-3990