23 June 1993

Ms.Judith Tomlinson.
Zymark Ltd,
The Genesis Centre,
Science Park South.
Birchwood.
Warrington, WA3 7BH.

Dear Ms. Tomlinson.

Following our discussions with Roy Kitchen. please find enclosed samples of unprinted board packaging material and tobacco for evaluation with the homogeniser on the BenchMate Tablet Processing Workstation.

We would like you to evaluate the following possibilities:

(a) **For the board** - efficiency of homogenisation in acetone followed by filtration.

It will be necessary to cut the board into small pieces (I suggest approximately 2mm x 2mm) so that it can be introduced into the sample test tubes prior to homogenisation.

Please subjectively check the efficiency of homogenisation by determining the maximum amount of board that can be homogenised with the minimum amount of acetone to obtain a homogenate that can be efficiently filtered before introduction to HPLC or GC. We would also like to check whether it is possible to clean the homogenisation bowl efficiently between each sample. Ideally we would like to use less than 100ml of acetone/sample.

(b) **For the tobacco**

Again it will probably be necessary to coarse cut the tobacco before introduction to the sampling test tube. Please try and coarse cut the tobacco first, but if this is inefficient, you could grind the tobacco up by hand or with a coffee mill. We would be interested to know the results of both these starting points.

For the tobacco, please could you determine the efficiency of homogenisation by trying to homogenise 5g in 20ml of 80% methanol: 20% water for 30 minutes. Once

homogenisation is complete, check whether it is possible to automatically filter the homogenate through the equivalent of a Whatman No 1 filter. Again, we would be interested to know whether the homogenisation bowl can be efficiently cleaned between samples.

For the board and tobacco samples we have specific analysis in mind, however for the tobacco, a similar starting regime is used for a large number of our determinations prior to further sample preparation and instrumental quantitation, some of which have been automated on a Millilab or could be automated on a Zymark BenchMate.

I hope that these samples will present you with no difficulty and that the above information is sufficient for you to progress with these evaluations. However if you have any difficulties, or questions which you may like to ask, please contact me or Andy Manson when we will be pleased to provide you with further advice.

With Regards,

Yours Sincerely,

Ian G.M. Anderson
Advanced Analytical Section

cc. Andy Manson
Steve Stotesbury