Technical Update

Flow Cells

It has come to our attention that some customers are experiencing leaky flow cells. This could have a number of causes:

- The cell or "O" rings are worn. We have tightened our procedures by carrying out a "pressure" test on each flow-through-cell for all incoming rentals. Where necessary we replace the rings or cell.
- In low flow sampling, the pump should be set to dribble rather than gush. From memory the standard says 200ml +/- 100ml/minute and never at a higher drawdown than about 30cm. As the name implies, low flow sampling means low flow (pumping) rates and they should never be such as to create a pressure in the cell.
- In some cases, customers are connecting the metals in line filters to the flow cell outlet. This is a real NO/NO as the sample could become aerated and therefore worthless. After the water is tested with the multiparameter meter, the cell should be disconnected, the filter should be attached directly to the pump outflow (using the correct clips). Hold the filter vertically so all air is expelled AND ONLY THEN collect the sample. Connecting the filter to the flow cell outlflow can create quite high pressures (up to 2 bar with the peristaltic pump) which is neither desirable for the cell, electrodes nor for the quality of the sample!



