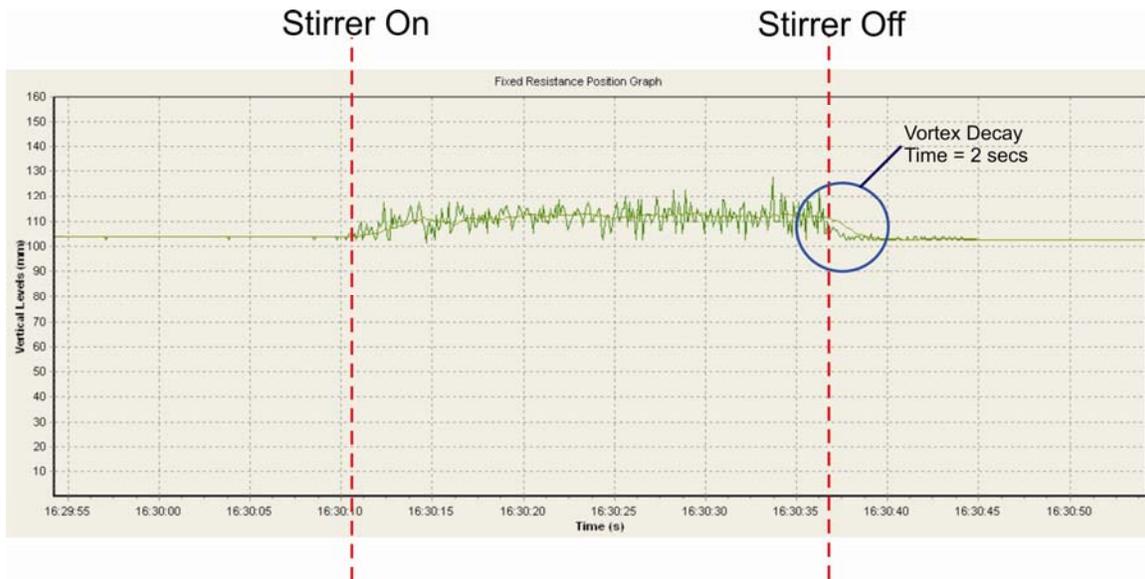
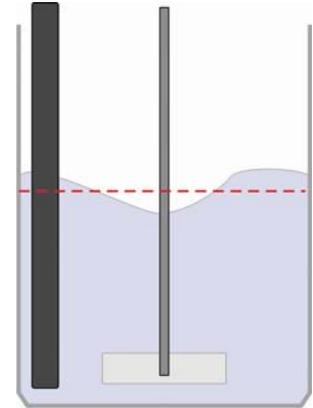


As a result of the test work done recently it has become necessary for us to clarify and document some terminology and definitions. There may be other terminology in general use so we are open to any corrections or guidance.

### The Vortex Decay Time (VDT):

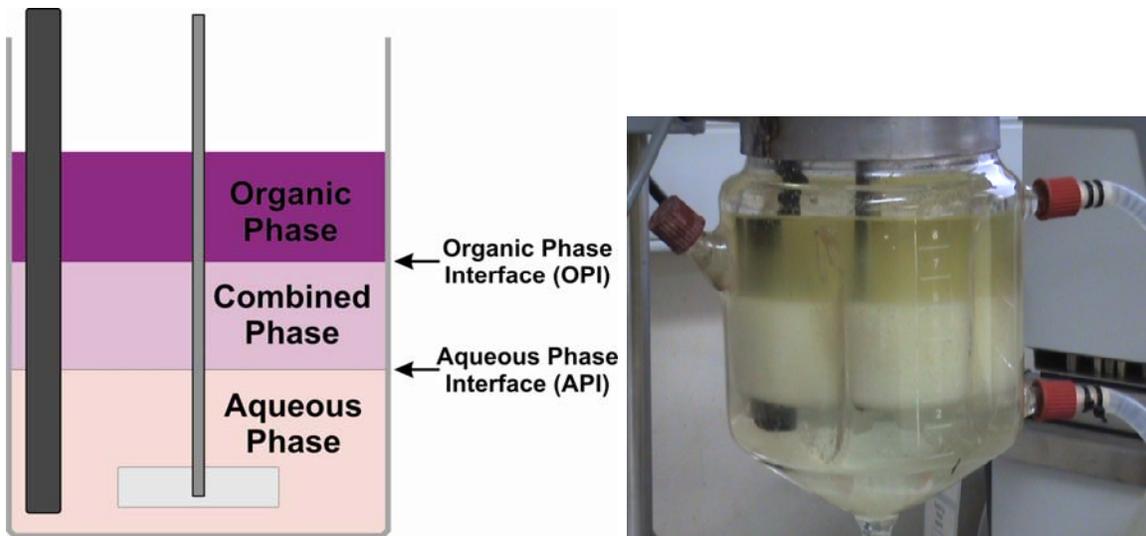
This is the time from when the stirrer is switched off (and assumed to have stopped stirring) and the liquid level reaches its steady state value.

Typically a vortex is formed in the reaction chamber when the solutions are stirred causing the level at the outer perimeter of the chamber to be higher than the centre. This will depend upon the stirring speed and the viscosity of the solutions. So when the stirrer stops there is some time before the stirring vortex decays and measurements should be made, this we call the Vortex Decay Time.



### Organic and Aqueous Phase Interfaces:

These are the discernable interfaces between the organic phase and the combined phase (OPI) and the aqueous and the combined phase (API). At steady state these should be one and the same, unless there is a third phase present (crud for example). These two interfaces may generally move at different rates, although they end up together.



**Initial Phase Break:**

We define this as the time after the Vortex Decay Time as elapsed until the first detectable change, formation or movement of either the API or the OPI. This may not be applicable in all systems.

**Steady State:**

The steady state position of the all interfaces is the positions reached as  $t \rightarrow \infty$ . We may define a "long term" (LT) steady state and a "short term" (ST) steady state – to suit practical experimental and testing procedures. ST steady state will be deemed to have occurred after a pre-defined time.

**Measurement Zones:**

These are zones along the length of the measurement probe in which various measurements can be made.

