

FluiMix™ Produced Water Measurement – Technical Data Sheet

Produced Water carries upwards of 0.5% in oil droplets that separate out from the water. Being lighter, the oil will rise to the top of the process flow thereby missing any oil in water measurement devices. The monitors will under measure oil content and thereby over estimate the true efficiency of the separation process. This results in harmful hydrocarbons being potentially dumped into the environment as well as an unnecessary loss of valuable oil.

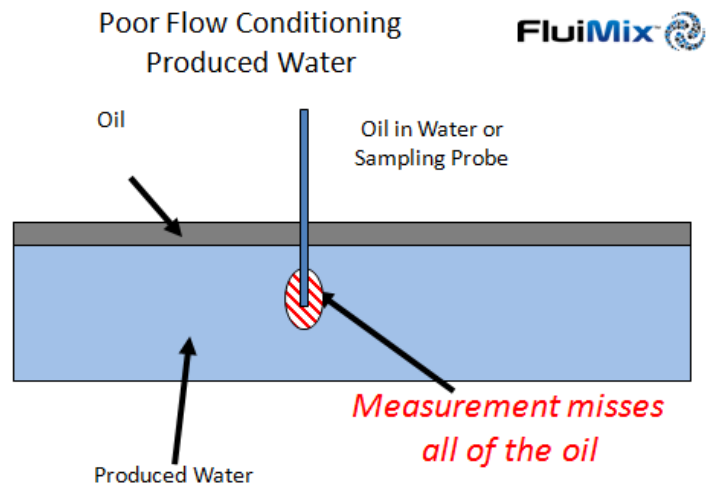
FluiMix™ Ltd has developed zero pressure mix technology that offers the following benefits to produced water sampling and measurement applications. FluiMix™ will provide fully homogenous flow ensuring that any oil in the water can be measured accurately and FluiMix™ is fully compliant to the following international standards:

API 8.2, ISO 3171, ASTM D4177, EP 6.2

FluiMix™ Ltd will guarantee the performance of its Analyser or Sampling system to within 0.025% of the true water content for a typical flow line or sampling point.

The benefits of a FluiMix™ system are:

- **Flow Conditioning** - FluiMix™ ensures that the flow conditioning meets API 8.2, ASTM D4177, EP 6.2 and ISO 3171 sampling standards. FluiMix™ will ensure that a sampling or measurement point will meet DECC and OSPAR requirements. The sampling point will be a fully representative flow no matter what the flow rate of the produced water.
- **Droplet Size** – FluiMix™ ensures that even the statistically important larger agglomerates can be captured by a sampler or oil in water monitor as they will be fully distributed across the measurement zone.
- **Flow Proportional Sampling** – FluiMix™ can supply a flow proportional ISOLOK™ cell sampling unit complete with self change sample cans, self diagnostic controller and reporting functionality. This ensures full compliance to the sampling standards.
- **Sample Handling Systems** – The ISOLOK™ sample receiver systems are designed with minimum dead space between grab and receiver. FluiMix™ uses natural affinity for the oil droplet to rise in the transfer lines to ensure that all oil captured reaches the sample receivers.



- **Capture Area** – The fast loop capture area in the process pipe is over 100 times greater than traditional pitot tube or probe based systems. This ensures that all larger and significantly more important aggregates are captured.
- **ISOLOK™ Cell Sampler Design** – The grab samplers are designed to withstand the harsh operating conditions faced in produced water. The body is made from Super Duplex Alloy which is resistant to chloride induced crevice corrosion. DLC (Diamond Tetrahedral Structure Coatings) prevent wear of grab motion components coupled with Carboxysilane super low energy coatings to protect the critical inner surfaces from fouling and pitting.
- **Online Oil in Water Monitors** - Improved flow conditioning significantly improves the accuracy of any online oil in water monitoring equipment.
- **Fast Loop Design** – The fast loop design can protect less robust analyser technologies from the aggressive flow conditions experienced in the main process line. Analysers for TDS, Total Oxygen, BTEX etc can now be considered for inclusion in the process analyser packages to aid process optimisation.
- **Laboratory Sampling Systems** - Poor Sample preparation within the laboratory will introduce significant error to the evaluation results even if the field samples taken are representative. FluiMix™ has designed its receivers and lab mixing equipment to ensure that laboratory sample preparation is simple and error free.

