

LUX TAG™

HIGHLY SENSITIVE LATENTLY DETECTABLE TAGS FOR MONITORING CHEMICAL ADDITIVES

Chemicals are added to oilfield pipelines for Flow Assurance and Asset Integrity purposes. Analysing the concentration of **chemical additives** in oilfield produced fluids is important for ensuring effective concentrations are maintained and the **pipelines** are sufficiently **protected** from **ruptures** and **blockages**. Interventions to fix pipes can cost millions of dollars, from the actual cost of installing new pipe to the loss in revenue due to the cessation of production. **Effective monitoring** can ensure **unnecessary costs** are **prevented** by reducing the number of interventions and only treating wells when necessary.

Analysing produced water samples for chemical additive concentrations can be challenging and time-consuming, involve complicated work-ups and expensive detection equipment. Furthermore, samples often need to be sent to a specialist laboratory which further delays analysis results.



LUX Tag™ has been developed in close collaboration with a major Operator in response to identified industry needs. It offers Service Companies and Operators the opportunity for **near real-time monitoring** of chemical returns, using a quick and simple method that can easily be **performed onsite**. It is particularly useful for polymeric additives such as scale inhibitors, asphaltene inhibitors and low dose hydrate inhibitors (LDHI's).

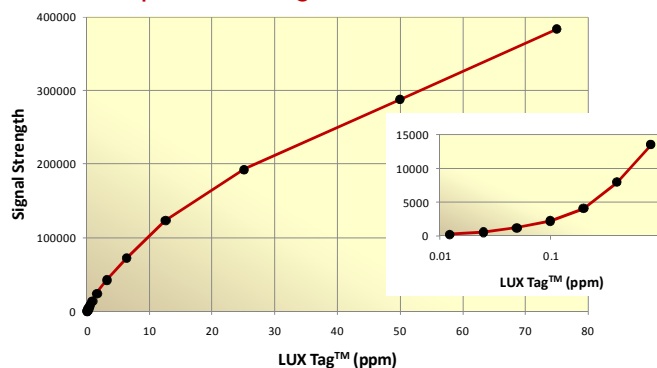
Principle of LUX Tag™

This novel technology (patent application filed) uses biomolecule based reagents to detect molecular tags which are incorporated in oilfield chemicals. Each tag has a complementary biomolecule which it interacts with, to produce a signal (generally fluorescence). The specificity of this interaction provides for a very sensitive and simple assay that does not suffer interferences from oilfield fluids.

LUX Tag™ is suitable for:

- Labelling additives to enable near real-time monitoring onsite
- Labelling additives that are particularly difficult to analyse using current methods
- Differentiating the signal between additives labelled with different tags, even when present in the same sample

Example of a LUX Tag™ Detection Profile



Key Features of LUX Tag™

- ✓ Extremely Sensitive – detect to parts per billion (ppb)
- ✓ Tags are Latently Detectable – easily detectable only upon addition of detection reagent
- ✓ Simple Detection Assay – uses inexpensive equipment and no complicated extractions
- ✓ Suitable for Onsite Use – grab and sample, add reagent and analyse



LUX Assure

FOR MORE INFORMATION CONTACT:

DR ANNE-MARIE FULLER
AMF@LUXASSURE.COM
T+44 131 516 7290
WWW.LUXASSURE.COM

UNIT 5.3
RESEARCH AVENUE SOUTH
HERIOT WATT RESEARCH PARK
EDINBURGH EH 14 4AP, UK