

Expro's "SafeWells" well integrity management software can be used to monitor well integrity performance, send real time reports, highlight problems and prompt remedial actions. One client that has benefited from this well integrity expertise is Tullow Oil.

# SafeWells software solution for effective well integrity data management

**I**N THE CURRENT oil and gas environment there is a growing requirement for oil and gas companies to operate in accordance with their well integrity policies, statutory regulations and various international standards.

The driving factor behind the change is directly linked to more strictly prescribed legislation and corporate social responsibility following high profile well integrity related incidents.

Clearly when fields were first being produced there was less emphasis on longevity with well lifecycle management, a term only more commonly used in recent years.

Typically, companies predicted a lifespan of

between 15 and 20 years for their wells when in reality many are still fully operational three decades later.

In the wake of the increased operating period there is demand for well integrity standards to be far more robust.

Commitment to well integrity now forms a large part of strategic planning and budgets, with wells subjected to annual and independent audits that provide key performance indicators for future planning.

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Expro is one such market leading company in this niche sector of well integrity and its tailored software solution SafeWells is fast becoming the established industry benchmark.

SafeWells monitors and reports on well integrity performance and has been successfully deployed by a wide range of independent and major operators across the globe.

The highly flexible software, which can be bespoke tailored to client needs, allows the monitoring of maintenance and associated remedial actions, risk assessment needs, dispensations and changes in the well operating envelope.

This provides an onscreen traffic light display of well status according to designated well failure models and also the ability to communicate through email the same status to any number of chosen personnel.

Operators can therefore plan their well intervention activities safe in the knowledge that they are compliant with their policies, while being able to demonstrate effectiveness at monitoring and tracking their wells' status.

SafeWells development began in 2005 and over the last three years Expro has added more focus on the software development as the number of clients using the products has risen.

In line with the growing popularity of the product the overall need for well integrity management systems within the industry has also increased.

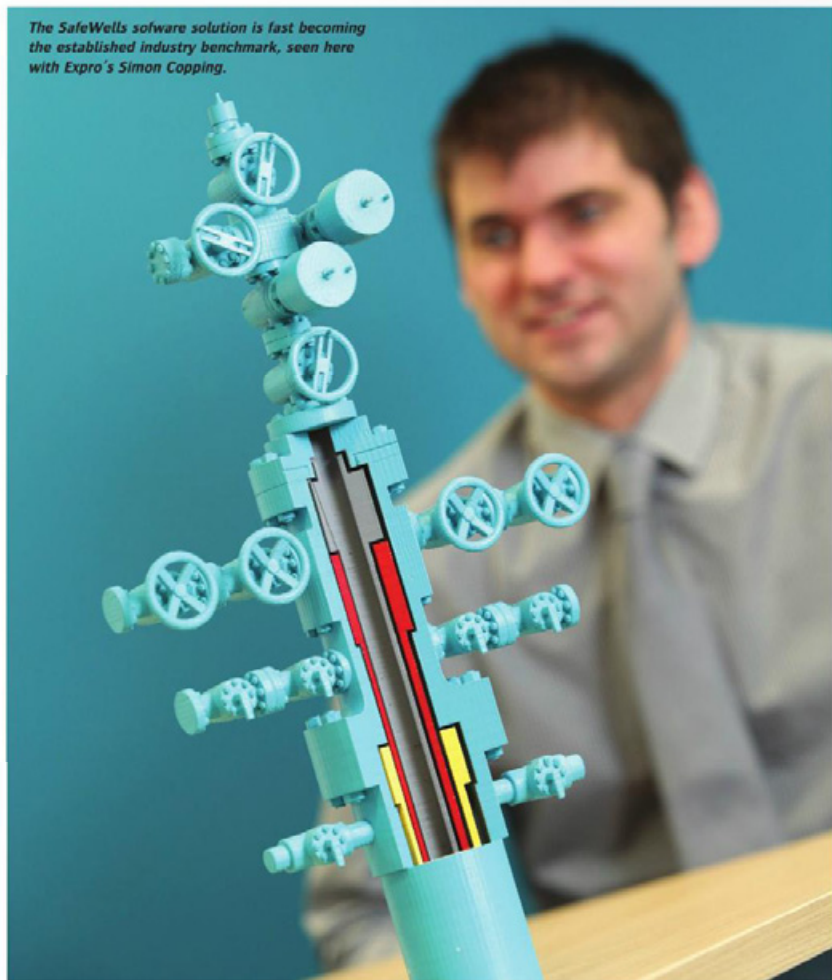
The software has been well received globally with Expro building a specialist team in North America to further increase its capabilities.

## Tullow's experience

One client that has benefited from Expro's well integrity expertise is Tullow Oil.

The major independent oil company made substantial oilfield discoveries in both Ghana and Uganda and as a result needed to further develop its well integrity procedures. More specifically Tullow Oil had to be prepared for this major

*The SafeWells software solution is fast becoming the established industry benchmark, seen here with Expro's Simon Copping.*



predicted increase in oil production.

In partnership with Expro, Tullow has developed a well integrity management system (WIMS) and implemented SafeWells.

Simon Sparke, well integrity manager at Tullow Oil, and his team began using SafeWells in 2010. Since then, they have enjoyed an excellent working relationship that has led to significant developments in the software.

"Tullow is very happy with our well integrity management system and this has been made possible with the ease of developing the software in partnership with Expro," he said.

"Linking various software packages to SafeWells allows my team to monitor all our operated wells. Through the highly visual process of displaying the status of any of our wells, we report monthly to various managers on our well stock and the various safety critical components in the wells."

Expro's Simon Copping, SafeWells product manager, who worked closely on the Tullow project picks up the case.

"We have a fantastic software system in SafeWells that really complements Tullow's well integrity strategy," said Copping.

"With different types of wells in challenging engineering environments operating under a range of governmental legislations, having a software package that is user friendly and flexible is key to



*Tullow has made substantial discoveries in Ghana.*

improving the company's well integrity performance.

"This provides a direct impact on communication, safety performance and the overall bottom line.

"Initially Tullow required a centrally managed integrity system to monitor its worldwide operations covering onshore and offshore wells including subsea completions.

"SafeWells was originally rolled out on Tullow's Bangora Gas Field in Bangladesh and is now deployed on its UK and Ghana operations.

"So far this product and the team supporting it have fulfilled all of our own expectations as well as receiving positive client feedback.

"I am excited about making a difference to our industry and building on the foundations of the success we have already enjoyed with SafeWells."

Copping also commented on the broader industry issue of well integrity management.

He added: "The consequences of bad well integrity management can be environmentally devastating and have a severe impact on corporate reputation.

## The consequences of bad well integrity management can be environmentally devastating.

"The lifeblood of an oil and gas company is ultimately the revenues it generates through production, so having unplanned production downtime due to well integrity issues can have major financial implications.

"Well integrity software is helping to address these challenges."

Operators are faced with the challenging problem of meeting production targets while ensuring that their wells continue to operate safely.

"Tubing and component selection typically is made based on the expected life of the well. However, it is often the case that wells are in operation far longer than originally planned and that the nature of well fluids changes over time, further compounding the problem.

"Clear integrity management systems provide guidelines that help ensure personnel at the well site are kept safe.

"Importantly, they constitute a reusable set of policies and procedures that ensure wells are properly and routinely tested."

But what are the other advantages of