CUSTOMER SITUATION:
Origin Energy operates the BassGas Joint Venture for commercializing gas acquired from the Yolla Gas Field in the Bass Strait. The Yolla platform is located offshore in 80 meters of water. Phase 1 of the Yolla Mid-Life Enhancement (MLE) project involved upgrading Yolla to a manned platform. Several heavy lifting operations, including the installation of a 600-ton accommodation module on the Yolla A platform, were to take place above a 14-inch export pipeline running from the platform to the Lang Lang terminal during the Yolla MLE campaign of 2011/2012. To mitigate risks to platform and personnel from dropped objects and to enhance overall safety, Origin Energy chose to isolate a section of the pipeline with the TDW SmartPlug® isolation tool.

TDW SOLUTION:
The scope of work was twofold. First, the SmartPlug tool would be used to isolate the 14-inch export pipeline during replacement of the emergency shutdown valve (ESDV). Second, the tool would remain in place to provide long-term isolation throughout the heavy lifting operations.

TDW used a 14-inch SmartPlug isolation tool to safely and effectively isolate the pipeline while the ESDV was removed and a blind flange, including a pressure gauge and bleed point, was installed. To protect the SmartPlug tool from the hydrogen sulphide content in the pipeline, the operational procedure involved initial batch pigging (with nitrogen) 100 meters into the line. This was followed by launching the SmartPlug tool (with nitrogen) through the topside launcher, down the riser and approximately 300 meters into the line. Once the tool was set, the platform was successfully isolated. The tool remained in the pipeline for the next 8 months, allowing heavy lifting operations to proceed and the new ESDV to be installed.

Adverse weather conditions delayed the MLE project, extending the isolation period from 6 months to 10 months. The SmartPlug tool continued to successfully isolate the pipeline over the unanticipated extended period.

CUSTOMER BENEFIT:
Utilizing the TDW SmartPlug tool to isolate the Yolla platform from the pipeline hydrocarbons, Origin Energy carried out the installation and valve exchange work under safe working conditions. This 299-day pipeline isolation operation is the longest in the history of TDW Offshore Services. The successful installation of the accommodation module and associated control equipment has paved the way for further critical work on the Yolla MLE project.