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THE TOW METHOD OF OFFSHORE PIPELINE INSTALLATION

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ABSTRACT

The tow method of offshore pipeline installation offers the advantage of pipe assembly onshore, in addition to requiring only a relatively small vessel for transportation of the pipe strings to the installation site. The high cost of a pipe lay barge can be eliminated by using a small vessel for the pipe installation.

A surface tow method test proving the feasibility of a long distance tow was demonstrated on the LL4A monopod platform project in ARCO Indonesia's ONWJ Block. The lines towed were 3 inch and 6 inch pipes 4,000 ft long. A longer string of 6,000 ft 6 inch pipe will be installed in August 1995 at ARCO's KLC platform in the ONWJ. A better engineering back-up has been developed to identify the risks, calculate the required offshore spreads and manage the installation plans and contingencies.

Since the tow method for offshore pipeline installation is very sensitive to environmental conditions, a thorough examination of environmental data is required. As noted, the test of a surface tow installation method has demonstrated the viability and advantages for certain applications of pipeline installation.

These applications are economically attractive for short flow lines which are a relatively short distance offshore where lay barge mobilization and demobilization and installation costs can be substantial. The largest cost saving results from eliminating the pipelay barge. The tow method of offshore pipeline installation is a simple installation concept, but which has risks that requires accurate engineering back-up and appropriate environmental data.

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