Public Executive Summary

Title: Riserless Interventions System (RIS)

Name of Offeror: DTC International, Inc.
Project Director/Principal Investigator: Bill Parks

Additional participants: Superior Energy Services; NOV Texas Oil Tools; Deepwater Research, Inc.; Det Norske Veritas (USA)

Solicitation Number: RFP2008DW2301 (08121-2301-03)

Project Start Date: January 6, 2010
Project End Date: April 6, 2012

Total Estimated Cost:	$ 4,315,890.00
RPSEA Maximum Share:	$ 3,338,858.00
DTC Cost Share:	$ 933,873.00

PROJECT DESCRIPTION:

DTC International, Inc. proposes to develop a Riserless Intervention System (RIS) that is capable of conducting both Wireline and Coiled Tubing (future upgrade) operations on subsea completed wells with wellhead shut-in pressures up to 15,000 psi (upgradeable to 20,000 psi) and wellhead flowing temperatures up to 300 °F (upgradeable to 350 °F) in water depths up to 12,000 feet. The RIS will be developed as part of a fully integrated Subsea Well Intervention System (SWIS) that is capable of conducting both Riser-Based (Thru-Drilling Riser and Open Water) and Riserless (Wireline and Coiled Tubing) Interventions on both Vertical (VXT) and Horizontal (HXT) Christmas Trees.

PROJECT OBJECTIVES:

The objectives of this project are: (1) to develop a Deepwater Riserless Intervention System (RIS) capable of conducting typical wireline interventions in water depths up to 10,000 feet; (2) to progress the design to the point that that it is certified, ready to fabricate; (3) to establish the cost of conducting a typical wireline intervention using the RIS; (4) to verify the anticipated cost savings achievable with the RIS; (5) to develop a business case for commercialization of the RIS; (6) to develop the RIS as part of a fully integrated Subsea Well Intervention System (SWIS) capable of conducting both Riser-based and Riserless Interventions; (7) to increase the maximum water depth rating to 12,000 feet; (8) to increase the maximum pressure rating to 15,000 psi and for potential upgrading to 20,000 psi; (9) to increase the maximum temperature rating to 300 °F and for potential upgrading to 350 °F; (10) to eliminate all downlines from the intervention vessel except for the ROV deployment cable and to eliminate all connections between the RIS and the intervention vessel and ROV; (11) to develop standardized interfaces between the RIS and subsea trees to minimize potential interface problems and issues and to offer these standardized interfaces to the subsea industry for adoption by the operators and/or standardization societies such as ISO and API; and (12) to develop a business case for a SWIS “Tool Pool” which would include the RIS.

KEY DELIVERABLES:

The RIS Development Project is estimated to require twenty-four months to complete. Major Project Deliverable are as follows: Project Management Plan; Technology Status Assessment Report; Technology Transfer Plan; System Architecture and Design Basis Report; System Design and Analysis Report; Operational Planning Report; TRAP, HAZOP/HAZID, and FMECA Analyses Report; RIS Component Design Report; Vessel Requirements, Motion Predictions and Deck Handling Study; Design Verification Report; Business Case Development Plan; and a Final Project Summary Report and Presentation.

EXPECTED IMPACTS AND BENEFITS:

The RIS proposed by DTC is expected to have the following major benefits: (1) reduce the cost of conducting wireline intervention operations by as much as 50% or more; (2) significantly shorten the planning and preparation time for intervention operations; (3) reduce the need for reallocation of critical resources from other projects; (4) reduce the impact on the environment; (5) greatly reduce the risk of equipment damage, loss of well control, or discharge of fluids to the environment; (6) significantly increase the operating envelope for the RIS by eliminating all downlines and connections between the RIS and the intervention vessel and ROV, (7) be applicable for use on ≥80% of the subsea wells in the deepwater and ultra-deepwater areas of the GoM by developing a RIS which is initially rated for 15,000 psi and 300 °F, but is designed for upgrading to 20,000 psi and to 350 °F.

PARTICIPANTS:

DTC will lead a team of personnel who have extensive experience in all of the technical and operational areas required to perform this development project. DTC has teamed with several industry-leading companies to provide the necessary personnel and technical expertise support. These include: Superior Energy Services; NOV Texas Oil Tools; Deepwater Research, Inc., an ROV Company; Det Norske Veritas (USA); and several specialty/expert Consultants.

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