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**FOR IMMEDIATE RELEASE:**

**Alan C. McClure Associates Completes Work on Gulf of Mexico's First Ship-Shaped Dynamically-Positioned Floating Production Vessel**

**HOUSTON, Texas – November 24, 2009:** Alan C. McClure Associates (ACMA), one of the industry's premier naval architecture and engineering firms, announced today that the company has begun winding down on their involvement on the HELIX PRODUCER I, the first ship-shaped dynamically-positioned floating production vessel in the Gulf of Mexico. ACMA's involvement was very broad in scope and covered issues involving class and flag, machinery and systems, as well as structural and safety issues. Resolution of these items allowed the vessel to transit from her conversion shipyard in Europe to the Gulf of Mexico for topsides outfitting and USCG inspections. ACMA President Scott McClure noted that the completion of this project represents the company's 26th floating production project.

The work scope included longitudinal strength analysis for the hull as well as analysis for local structure in-way of equipment installations. Utilization of ACMA's Finite Element Analysis (FEA) program, ANSYS, was key to some of the higher technical analyses, as was the use of Cadre Pro and various in-house-developed analysis software packages. Analysis of the bottom hull structure was investigated for possible slamming issues, as were bulkheads for sloshing effects. The flair boom foundation provided an additional challenge as constructability issues had to be considered for the final design.

"As everyone knows, the devil is in the details" commented Peter Marucci, ACMA's principal structural engineer. "You must always keep constructability in mind when you design a structure in order to facilitate both the initial construction of the vessel and easy access for inspections later in the vessel's life."

ACMA performed an inclining experiment for the vessel that allowed her to transit from the shipyard in Europe to her final outfitting location in Ingleside, Texas. Upon completion of the topsides outfitting, class/flag will require another vessel inclining to allow her to work offshore, producing oil in the Phoenix Field (formerly the Typhoon Field), 165 miles SSW of New Orleans, Louisiana. ACMA utilized its GHS program to investigate the vessel's intact and damage stability characteristics. This information, along with the vessel's final lightship characteristics as determined by the inclining experiment, will be put into a dedicated vessel loading program. This vessel loading program will be developed by ACMA and Creative Systems (GHS), with input from Helix operating personnel, to meet class/flag requirements.

Additional areas that ACMA had involvement and review responsibilities for included a number of marine systems, blast analysis verification, superstructure

design audit, hazardous area determinations and safety plans, which all conformed to SOLAS requirements.

“As one of the most technically-challenging offshore oil production projects ACMA has been involved in during our 35-year history, this assignment allowed our seasoned team to showcase a number of our software capabilities and deep resources,” said McClure.

**About Alan C. McClure Associates, Inc.**

Headquartered in Houston, Texas, Alan C. McClure Associates, Inc. ([www.acma-inc.com](http://www.acma-inc.com)) is one of the industry’s premier naval architecture and engineering firms, and has been providing a wide variety of design and engineering services to an international clientele for 35 years. Projects include drilling rigs, floating production systems and support craft for the offshore petroleum industry. Our array of services also includes project management, legal/arbitration consulting, surveying and negotiations. The ACMA staff and services represent the engineering disciplines necessary to successfully complete projects in naval architecture, marine engineering, electrical engineering, mechanical engineering and engineering mechanics.



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