



# PROJECT NEWSLETTER



## Status Summary

The Delta House Facilities construction activities are picking up pace as large portions of the Hull, Deck, Production and Subsea Equipment are coming together. While there are no wells currently being drilled, significant progress is being made on the planned Phase I drilling activities. Two new dynamically positioned drilling rigs are on the way.

You may notice that the planned launch date for the Delta House Hull is now March 1, 2014. This shift was anticipated and will not impact the planned load out and delivery of the hull to the Gulf of Mexico. Hull Pontoon blocks are being set into the Hyundai dry dock at a very rapid pace. A picture of one of the first column blocks is shown being staged quayside awaiting installation on a corner of the pontoon.

Production system engineering and procurement efforts at Audubon Engineering are approximately 90% complete. Many of Production Equipment packages are nearing completion and will be shipped to Kiewit in the next few weeks. The Upper Deck Framing has been raised to allow piping installation underneath the main deck before it is “floated” or lifted into place over the cellar deck framing.

Of particular note is that Technip USA, Inc. has been contracted to install all of the Delta House pipelines. While Technip Engineers have been engaged in the planning process for a few months now, a significant milestone has been achieved with the execution of this major contract.

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## Drilling & Completions



There was not any new Delta House Drilling for the last month, with the completion of well operations on the North Well in MC 209 and the subsequent departure of the Ensco 8502.

Our focus remains on the delivery of our two new build rigs, the Sevan Louisiana and the West Neptune. The Sevan Louisiana has completed sea trials and is now offshore just outside of Shanghai, China. There are issues with one of the thrusters and a replacement will be needed. We are also working through equipment delivery challenges from Cameron on critical components of the drilling riser assembly. Thus, we will remain in China for an additional 4 weeks to ensure the delivery of these components is synchronized with the mobilization schedule. Current mobilization and GOM commissioning schedule projects the Sevan Louisiana starting well operations in the GOM in mid to late April of 2014.

LLOG and Seadrill are also progressing the mobilization and commissioning plans for the Sevan Louisiana. The Rig Integrated Acceptance Testing (IAT) plan has been developed and approved by LLOG and Seadrill. QA International continues with the rig systems commissioning and acceptance and Lloyd’s Register (formerly West Engineering) is covering the commissioning and acceptance testing of the BOP and BOP systems. Following the thruster repair, the Sevan Louisiana will be loaded out and depart for Singapore by mid-November. In Singapore, we will take on tubulars, mud and cement to conduct extended commissioning of the mud and cement systems on the rig while enroute to Mauritius, then Cape Town, South Africa. Due to the late equipment arrival, the splash of the BOP stack and riser running system is now likely to be performed in Curacao. Crews will train on the rig pipe handling and fluid systems during the voyage.

Once in Curacao, we will fully staff the rig with LLOG HSE and Operational supervision. After a 14 day voyage from Curacao, the rig will arrive in the Gulf of Mexico for final rig systems commissioning with work to start on the first well in mid April. LLOG is working with Seadrill to recover some of this 45 day delay.

Construction of the West Neptune is ongoing in Korea. LLOG engineering and operations staff are scheduled to tour/review construction of sister rigs scheduled for delivery prior to the West Neptune later this month in Curacao. The initial operations focus of the West Neptune will be the efficient completion of the 5 Delta House wells drilled to date. The dual BOP rig should efficiently complete these wells as its first GOM operations enabling a quick production ramp up of the Delta House facility.

# Hull Fabrication

HHI has expended 416,773 man hours to date. Overall progress is at 64%.

- Major Events:

Steel Cutting	March 4, 2013
Keel Laying	July 15, 2013
Flooding of Hull	November 13, 2013
Launching	March 1, 2014
Sail Away Window	March 15 to 29, 2014
- Riser Adapter construction is continuing at UNEX with the first 16” Riser Adapter in final stage of completion.
- Painting of Columns, Nodes and Pontoons is on-going.
- The Hull will be submerged into the dry dock on November 13, 2013.
- A total of 21 blocks will be set and erected before October 21st.
- Riser pipe fabrication and bending has started and will be completed by the middle of October.
- Production bend test is complete for Riser Pipe.



Painted Column Block



Riser Pipe Production Bend Test

# Hull Engineering

Phase 1 of the Delta House Hull Detailed Engineering is complete. During Phase 2, Exmar will continue to provide engineering support to LLOG, HHI, Audubon Engineering, Kiewit Offshore and to the vendors fabricating Hull Owner Furnished Equipment (OFE).

The following are recent and ongoing activities:

- Mooring Chain Stopper Factory Acceptance Testing – Successfully Completed
- Mooring Messenger Chain Fabrication – Half shipped to HHI, remainder to ship in October
- Visited South Korea site team last week and also visited UNEX (Riser Adapter Fabricator) with LLOG

Exmar representatives are continuing to witness fabrication and factory acceptance testing of Hull OFE in China, Korea and Europe. Fabrication of Hull Owner Furnished Equipment (OFE) is progressing, as can be seen in the photo.



Riser Adapter Bushing

## Engineering/Design:

- Progress for Engineering Topsides through September is approximately 89.5% complete.
- Meeting with Vendors weekly or bi-weekly as necessary to ensure that equipment deliveries are still on time.
- Ongoing reviews of Vendor Data Packages.
- Issuing Piping & Instrumentation Diagrams for Design / Construction.
- Closing out HAZOP items.
- Issuing Plate Penetration Drawings to Kiewit.
- Issuing Pipe Supports/Cable Tray Supports to Kiewit.
- Producing Issued for Construction Isometric Drawings. To date, approximately 3502 out of 4202 (83%) (revised estimated total) have been issued.
- Incorporating vendor packages into the 3D model as they are received.
- Coordinating with BP for the Gas Pipeline Requirements.
- Continued HMI/PLC development.
- Receiving Automation hardware and packaging for delivery to panel vendor.
- Ongoing submittals to DNV.
- Continue Interfaces between Kiewit, Exmar, and Pinnacle.

## Procurement:

- A total of approximately 105 total Topsides Purchase Orders will be completed at the end of the project.
- 96 Purchase Orders (91%) have been issued (3 issued in September).
- 6 Request for Quotation Packages are out for bid (1 issued in September).
- 3 Packages are in Technical Development.

# Production Equipment Fabrication



Below is a snapshot of current activities that our inspectors are overseeing:

All electrical, duct work and insulation has been installed into the Living Quarters. **General Marine Leasing** is currently working on the vent piping as well as floor tiling in the galley and dry storage floors.

The Storage/Workshop buildings are nearing completion at **Stallion Offshore**. The final details are being added, followed by shipment to Kiewit.

At **Point Eight Power**, the floor, roof, vertical tubular supports and all crimp plate walls are welded on the Emergency Generator Building. All exterior walls are coated and the interior walls are currently receiving insulation.

The Launcher/Receiver Skid had the 15,000M hydro-test performed at **Dynamic Industries**. After I&E and touch ups are made, the skid will be shipped to Kiewit.

At **NOV Petrex**, the Test Separator and Separator 1 are almost complete. Both vessels are in the process of painting and final inspection, followed by shipment to Kiewit. On the Gas Dehydration Skid, the Inlet Filter Separator and the Glycol Contactor are being welded out. Gas/Glycol Heat Exchanger is complete, including hydro and coatings. Installation of pipe supports, pipe spools and valves on the skid is also underway. On the Condensate Stabilizer, the lower and upper skid frames are welded out, the padeyes are installed and the columns are cut. The deck plate is installed, the drains holes are cut and the drains are fitted up. Also, fabrication has started on all of the vessels that occupy the Condensate Stabilization Skid.

All major equipment has been set on the Instrument Air Skid at **Airdyne**. Currently installing piping, instrumentation, and electrical.

The Potable Water Skid that was designed, fabricated, and assembled at **H2O Offshore** is now complete. It awaits shipment to Kiewit.

At **Blanchard Contractors**, the AFFF Storage Skid's structure and piping are complete and the AFFF Tank has arrived from Hebert Hiller. The tank will be coated, assembled to the skid and then it will be ready for shipment. The structural, piping, and I and E are complete on the Deluge Manifold Skid. Blanchard Contractors is waiting on a few outstanding butterfly valves and then the skid will be ready for shipment.

The fabrication of the Gas Pipeline Pig Launcher is complete at **BS & B**. It will now be hydro-tested and coated before shipment to Kiewit.

Fabrication of certain elements of the Heat Media Skid and Glycol Regeneration Skid continue. Once complete, they will be sent to **Integrated Flow Solutions** for assembly.

On the Fuel Gas Skid, the lower deck framing, upper deck framing, and pipe supports are being fitted and welded. Pipe fabrication has begun and all major components have been received by **Moore Controls**.



38 Man Quarters Building

## Production Deck Fabrication



### Lower Level Framing:

- The lower level framing work continues on the Northeast and Northwest areas. Handrails continue to be worked. The flare scrubber skid and the North and South open drain sump tanks have been installed on the framing.

### Upper Level Framing:

- The upper level framing was raised to a higher level after painting, and pipe support installation began below the framing.

### Miscellaneous:

- Pipe spooling continues at the sub-contractors shop. Spools have started arriving on site for installation.
- The production module upper level framing and the mezzanine level have been moved from the shop to the field and the upper level flipped upside down in order to install the truss tubulars.
- Pipe supports continue to be fabricated, blasted and painted.
- The compression module has been framed and taken from the shop to the field and flipped upside down in order to install the truss tubulars.
- Pipe racks are all completed and painted and ready for pipe installation.
- Access platforms, stairs, and handrails are being fabricated and painted.
- Valves, vessels and skids continue to arrive weekly, also miscellaneous company supplied items. The valves and miscellaneous items are being painted weekly.



Upper Level Raise Complete



Installing Large Pipe Supports below the Upper Level