

# Stacking Programs

Assessment, Preservation and Reactivation

**Rigs and Vessels Care**



**OCEANICS**  
ENGINEERING SERVICES

[www.oceanics.com.sg](http://www.oceanics.com.sg)





*Corrosion protection you can count on*

# Rigs and Vessels Care

Oceanics strived to care our client's fleet as we know the value of the Asset. We can help to find the best possible solution to mitigate the risk and ensure our client's Asset is in optimal shape during the stacking periods.

Our dedicated team will help to assess the client's preservation and reactivation needs during stacking periods to meet the objectives and financial performance. We have the clear understanding about caring of any equipment is vital when it is not in use as like when it is in operation/drilling. Let us use our competence, knowledge and integrity to keep all the equipment ready to operate/drill.





## **Our experts are on hand to help our clients:**

- ▶ Identify and manage the scope of work
- ▶ Assist in the critical path of identification and planning
- ▶ Ensure risk mitigation
- ▶ Help with on-time and on-budget delivery
- ▶ Maintain the highest quality results
- ▶ Manage Certificate of Conformance requirements



## **Your Value:**

- ▶ Reduced reactivation time and cost through proactive project management, ensuring the optimal solution for your fleet needs during stacking periods.
- ▶ We are available globally to provide our products, services and solutions per our client's requirements in any part of the World.
- ▶ Subject matter experts to help design and support the stacking program, ensuring the rigs are up and running optimally whenever they needed.
- ▶ We are assuring the highest safety and quality requirements for all our stacking programs.
- ▶ We are supplying the spare parts globally based on our client's needs.

# Stacking Options

Oceanics have designed a customized Stacking Program for both warm and cold stacked rigs to ensure the integrity of client's OEM equipment between contract periods and seamless transitions from stacked to ready for operation.

## WARM STACKING

Working with Oceanics team of experts means that when the rig is ready for reactivation, we have already ensured that the equipment is prepared to get back to work. Warm stacking ensures the equipment is continuously maintained, operated and assessed throughout the stacking period with monthly OEM reports detailing recommended spares and repair requirements. Warm stacking allows flexibility in the stack period. The rig can be reactivated and made ready for contract quickly and efficiently with little effort and overhead.

## COLD STACKING

We work with our clients to prepare a detailed work scope for the effort required to stack the rig. Our trained experts will help to preserve all the equipment and support routine inspections and turning crews to safeguard the client's investment. Our goal is to ensure a timely reactivation with the primary aim of reducing the duration from stacked to ready for operation.

### WARM STACKING

- ▶ Low preservation costs
- ▶ Operational / maintenance costs
- ▶ Low reactivation costs
- ▶ Ensures equipment integrity

VS.

### COLD STACKING

- ▶ High preservation costs
- ▶ Minimal operational / maintenance
- ▶ High reactivation costs and duration

# Stacking Services

## Assessment of types of stacking

*Deciding whether to warm or cold stacking of the rig and what preservation measures need to be taken is critical.*

Our team of preservation experts will conduct a thorough inspection and assessment of the equipment and help to decide identify the most beneficial preservation strategy for rig stacking. Together we can determine a complete package that will provide our clients with the proper measures for preservation, stacking and eventually reactivation for use.

The assessment will result in a detailed report on equipment condition with recommended spares and effort required to repair equipment. Once the assessment is complete, we offer the following Stacking Services:



PRESERVATION



MAINTENANCE/  
OPERATION



REACTIVATION



ACCEPTANCE



## PRESERVATION

### WARM STACKING

Preservation is not as detailed as in a cold stack situation as the equipment must be left serviceable and available to be functioned. Volatile corrosion inhibitors (VCI) will be added to gearboxes and fluid systems and then circulated. No hoses will be disconnected or removed. Power will be left applied to all equipment and motor heaters.



## MAINTENANCE/ OPERATION

Warm stack maintenance requires that all equipment is moved on a regular basis throughout its operating envelope. This requires a competent person with knowledge of the driller's operating station to run the tools. In addition to functioning the equipment regularly, maintenance will be executed where tools will be lubricated and equipment inspected. VCI may be topped up or changed out based on duration of stacking period and VCI shelf life.



## REACTIVATION

Warm stack reactivation requires significantly less involvement than cold stack reactivation. All preservation is removed and in some cases fluids will be replaced. In certain situations, equipment can be brought back to service with VCI products and changed out later at the end of the VCI life.

### COLD STACKING

Preservation is extremely detailed and involves preparing the equipment for long term storage without power. Equipment will be cleaned, filled with volatile corrosion inhibitors (VCI), hoses and piping isolated and equipment covered and protected from the elements.

Cold stack maintenance is very limited and involves crews of personnel attending the stacked rig at monthly or quarterly intervals to assess the condition of the preservation of equipment and execute turning routines where motors and gearboxes are rotated by hand to ensure bearings are moved. VCI may be topped up or changed out based on duration of stacking period and VCI shelf life.

Cold stack reactivation requires comprehensive, detailed planning and sufficient time to be allocated to allow an effective execution. A cold stack reactivation should identify minimum spares required and ensure these are ordered and available in time for the reactivation to commence. In addition to spares, consumables should also be available onsite to allow fluids to be changed out and equipment to be operated and lubricated per equipment start up procedures.



## ACCEPTANCE

Acceptance of the equipment is essential to ensure that reactivated equipment meet the intended or better quality requirements as before the program started. Our ultimate objective is to ensure that the equipment is cared for throughout its lifecycle and perform for the client's acceptance standards.

# Execution Process



## Project Execution Team

We work closely with our clients to help manage the unique needs during stacking period and provide the support through the Oceanics before, during and after the project. Our experienced team manages scope identification, critical path, risk mitigation, maintain cost-effective quality standards and prompt delivery.

## Oceanics offers: Two types of Stacking Programs

### Complete program

- Project management teams assigned by Oceanics
- Oceanics - executed program
- Minimal support personnel from customer
- Equipment experts involved throughout project

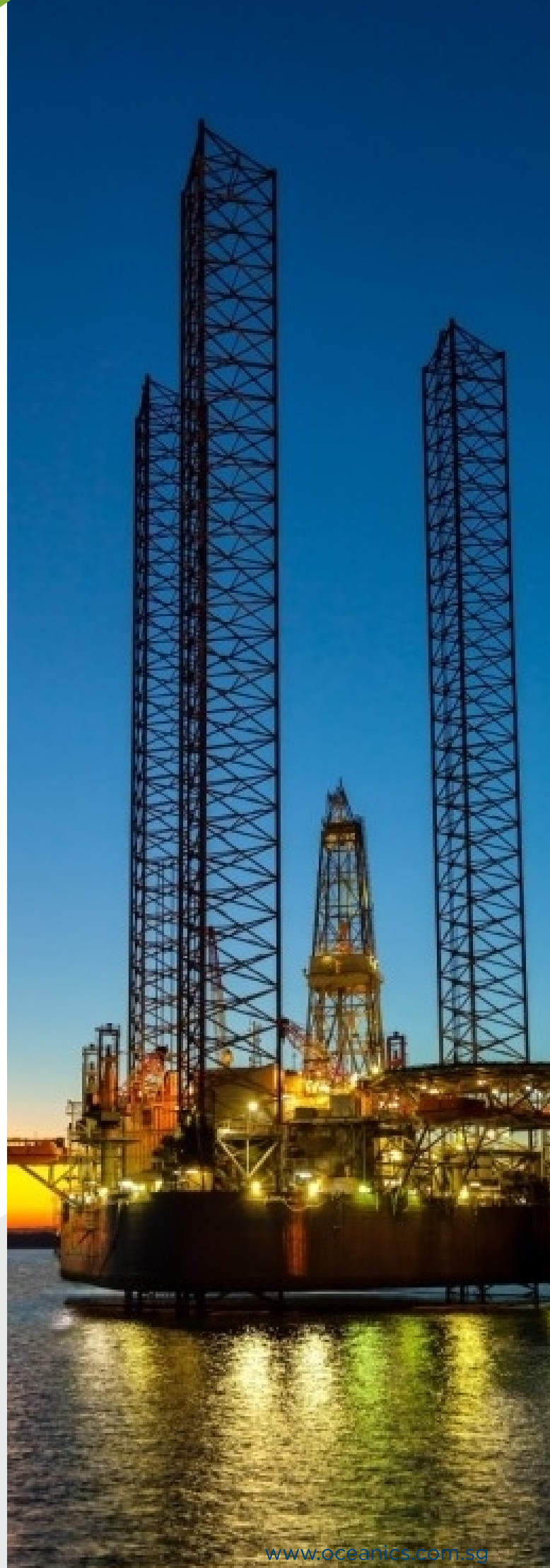
### Supervisory program

- Project management team assigned by Oceanics
- Oceanics personnel provide onsite supervision
- Customer-executed programs



# Benefits

- ▶ **Effective communication** in place through the entire project, with a single point of contact that brings all our expertise together.
- ▶ **Improved Efficiency** in delivering services, shortening the time required for the project.
- ▶ **Reduced Risk** by identifying and managing potential problems before they occur.
- ▶ **Saved Effort** and cost through proactive scope management.
- ▶ **Optimal Solutions** to meet our client's unique challenges – keeping the rig and equipment running on time and on budget.
- ▶ **Highest Level of Quality** to ensure results to meet the client's requirements and expectations.







*Quality asset protection starts with Oceanics*

# Our Offices

Please contact us by email [enquiry@oceanics.com.sg](mailto:enquiry@oceanics.com.sg) your email will immediately be referred to the correct department & recipient.



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