

BaraH₂O™ Slop Treatment Unit

OFFSHORE SEPARATION TECHNOLOGY

CHALLENGE

Conventional management of offshore drilling slop is costly. Regardless of the composition, all slop typically is shipped to shore for treatment and disposal. In addition to the high transportation cost, the process of shipping to shore for treatment exposes operators to the hazards and risks associated with the logistics of transport.

OVERVIEW

The BaraH₂O™ Slop Treatment Unit is modular, highly efficient, and can treat a range of oily water slop produced on a rig - at source. Clean water from the unit can be discharged directly to the environment or reused in pit washing operations. The unit will significantly reduce slop sent onshore for treatment by up to 95%.

The unit does not need to run continuously, but instead can be operated only when required, i.e., when the volume of slop in the tank reaches a pre-determined level.

The processing principles are based on a combination of chemical treatment and dissolved air flotation (DAF). The chemicals flocculate and bind together particles, making them easier to separate, which then allows flotation by dissolved air to separate both particles and oil from the slop water, leaving the effluent in an acceptable condition to be discharged to the environment or reused on the rig.

FEATURES

- » Processing capacity of 8-15m³ per hour
- » Broad range of fluids can be treated (solids tolerant)
- » Dissolved-air flotation treatment technique
- » NORSOK and ATEX compliant
- » 20 foot modular container enclosure
- » Multiple voltage and frequency

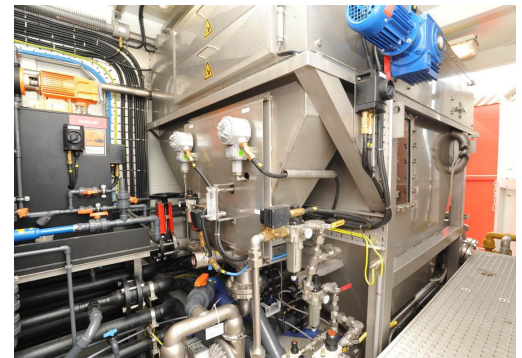
BENEFITS

- » Easy Installation
- » Up to 95% reduction in slop waste volumes
- » Reduced HSE risk with real-time and remote monitoring of oil in water
- » Minimizes transportation requirements and carbon footprint
- » Designed for operation in adverse weather conditions



Pipe flocculator with chemical dosing system

HAL89108



Dissolved-air flotation (DAF) unit

HAL89106

REAL-TIME OIL IN WATER MONITORING AND MEASUREMENT

When performing water treatment offshore, field analysis of the discharged water is required. Local discharge requirements direct the level of Total Petroleum Hydrocarbons (TPH) at which effluent may be discharged. To enhance the level of assurance that the effluent discharge meets specification, Baroid's solution is to continuously monitor the TPH level. This is done by in-line instrumentation. The BaraH₂O™ unit utilizes the OIW EX-1000. Industry standard field lab instrumentation and method is also used to confirm TPH levels on a periodic basis.

This instrument is an Oil-In-Water Monitor designed to operate in hazardous environments and provide consistent, accurate and uninterrupted measurements with remote data transfer capability. The unit's dynamic self-cleaning capabilities virtually eliminate the need for maintenance.

Using ultrasonic technology the OIW EX-1000 processes a truly representative sample size that enables a consistent and reliable measurement without the need of flow mechanisms, mechanical mixers or chemical additives.

The simple easy-to-use interface and clear uncomplicated display facilitates effortless configuration and use of the instrument. The required configuration is easily set using drop down menu bars. The current status of each measurement cycle is clearly displayed at each step of the chosen configuration.

Case Studies

	Rig 1	Rig 2	Rig 3
Operating Duration	506 days	87 days	88 days
Treated Slop Volume (m³)	19,447	1,959	3,164
Slop Sent to Shore (m³)	1,506	96	312
Treated Slop Discharged at Sea (m³)	17,971	1,863	2,852
Reduction in Slop Sent to Shore	92%	95%	90%



Continuous Discharge Monitoring with the OIW EX-1000

For more information, contact us at baroid@halliburton.com

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