Mobile Vertical Cuttings Dryer & Centrifuge Unit

Challenge
Due to increasingly stringent environmental requirements around the world, the cost impact of waste management for oil-based drilling operations is steadily increasing. This puts a large focus on the ability to efficiently clean, transport, and dispose of cuttings, while maximizing fluids recovery. Historically, a successful waste management operation would require a large on-site footprint, further increasing operator pad construction costs. As the importance of waste management increases throughout the industry it is necessary to have a solution that can continue to deliver field-proven results while reducing operator liability and cost.

Overview
Baroid’s Mobile Vertical Cuttings Dryer (VCD) and Centrifuge unit is a high capacity, decanting centrifuge designed for continuous feed and efficient throughput necessary for real-time oil-based drilling operations. The unit is positioned alongside a cuttings container, where the cuttings are then fed and processed through the VCD. Dried cuttings are collected in a cuttings bin where they are mixed with discarded solids from the centrifuge. The dried cuttings are then available for transport and final disposal. Effluent recovered by the dryer is collected in a holding tank before being processed through the high-speed centrifuge in order to be cleaned and returned to rig pit or active mud system.

The Mobile VCD/Centrifuge unit has been proven to provide dramatic reductions in drilling solids waste management costs, also offering the ability to easily move the equipment on and off location.

Benefits and Features
Baroid designed the Mobile VCD/Centrifuge to provide a safe and efficient solution to customer challenges and bring added value to drilling operations:

Reduced Cost
• Mobility feature virtually reduces costly stand by time
• Trailer mounted configuration significantly reduces rig up time and costs
• Self-contained power source eliminates reliance on rig power
• Efficient system maximizes fluid recovery and minimizes total fluid spend

Minimized Safety and Environmental Exposure
• Compact, self-sufficient arrangement reduces operational footprint. Unique trailer mounted configuration takes 1-2 trucks off the road as compared to conventional set ups
• Mobility feature reduces overall on-site headcount safety exposure
• Average Oil Retention on Cuttings (ROC) of 3-6.9% reduces total waste to be transported and disposed
• Encased tube auger system.

Enhanced Versatility and Performance
• Mobility feature means a single unit can service multiple rigs
• Trailer mounted lights enhance safe and efficient night time operations
• High Capacity VCD and Centrifuge combination maximizes fluid recovery and minimizes cuttings waste for all types of Oil Based Muds

Applications
Baroid’s Mobile VCD/Centrifuge unit is highly effective and can add value to the following drilling operations:
• Oil-, synthetic-, ester-based mud drilling operations
• Environmentally sensitive areas
• Small rig footprint required
• Operators with multi-rig drilling operations

The Mobile VCD/Centrifuge Unit provides operators the flexibility to service multiple rigs with a single unit.
The mobile unit allows operators to meet environmental compliance requirements and maximize recovery of NAF based drilling fluids without a large investment in space on the rig site, giving operators the option of servicing multiple drilling operations with a single, mobile unit.

The mobility of this equipment offers a distinctive competitive advantage, the field proven results and innovative design offer the operator additional benefits. Containing its own power source, the Mobile VCD/Centrifuge unit is the only self-sustaining mobile unit of its kind to contain centrifuge and cleaning systems. Also, opposed to typical gear driven augers, the unit features a fully encased “tubed auger” system, promoting a safer work environment and further reducing operator liability.

**Conclusion**

Environmental regulations and increasingly difficult drilling operations drive the industry demands for equipment that can dispose of waste in the most efficient and cost effective manner. Many times, equipment needs require a large investment in both capital and space on site, adding additional liability to operators. Baroid’s Mobile VCD/Centrifuge unit offers a waste management solution to effectively clean and dispose of drilling solids and maximize drilling fluid returns, remaining mobile and reducing its footprint on the rig site.

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**Specifications**

- 14” high speed centrifuge – 0 to 3400 rpm, 190 GPM
- V-71 VCD – 25-40 TPH; 3%-6.9% ROC
- Power wash unit – 4000 psi; 125 gal water tank
- Hydraulic driven auger system
- 2x 9 BBL fluids holding and processing tanks
- 1x Generator 175 kw, 480 volt, 60Hz, 3Ph
- 3x Rig lights for night operations

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*The unit is the only self-sustaining equipment of its kind to contain centrifuges and vertical cleaning systems*