

# Vacuum-Feed Vertical Cuttings Dryer Simplifies Operations, Saves Costs

## BARAG-FORCE™ SYSTEM SAVES OPERATOR MORE THAN USD 25K PER WELL IN SHALE PLAY

BAKKEN FORMATION

### CHALLENGE

Improve a costly, complicated drilling waste management process by:

- » Eliminating vacuum trucks and augers
- » Maximizing OBM recovery

### SOLUTION

BaraG-Force™ VacVCD system, a vacuum-enhanced vertical cuttings dryer (VCD) for onsite cuttings and OBM handling, enabling the operator to:

- » Feed VCD directly from shakers
- » Clean pits prior to displacements

### RESULTS

Baroid received a 100 percent work award for the BaraG-Force VacVCD system, based on the following results:

- » Saved USD 7,500 in vacuum truck costs
- » Gained USD 5,000 in OBM recovered from pits
- » Gained USD 25,000 in OBM due to low mud retention on cuttings

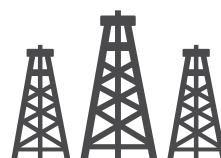
### ELIMINATING VACUUM TRUCKS AND AUGERS FROM WASTE DISPOSAL PROCESS

The drilling waste disposal process in the Bakken formation depended on calling out vacuum trucks to empty the pits, then drying any remaining sludge and hauling waste offsite for disposal. Tracking wet cuttings around the location was complicated and included transporting them from the catch tanks to the vertical cuttings dryer (VCD) and trucks. Augers were used for cuttings conveyance, creating a safety risk for rig crew members.



BaraG-Force™ VacVCD with cuttings collection trough inside a three sided catch tank.

The operator needed a way to streamline operations, maintain cleanliness on location, eliminate augers, reduce loader activity, clean out the pits, and recover as much oil-based mud (OBM) as possible from the drilled cuttings.



VACUUM-ENHANCED VERTICAL CUTTINGS DRYER (VCD)  
**SAVES MORE THAN \$25K PER WELL**

### USING VACUUM TRANSPORT FOR WASTE AND CUTTINGS STREAMLINES OPERATION

Baroid separation solutions personnel deployed the BaraG-Force™ VacVCD system, a vacuum-based method for feeding the VCD unit where cuttings were vacuumed directly to the VCD. This helped accomplish several objectives:

- » End dependence on vacuum trucks for pit cleaning during displacements
- » Eliminate the use of augers and a loader/excavator to move wet cuttings
- » Maximize OBM recovery

Implementing this efficient way of feeding the VCD allowed the operator to experience additional cost benefits when using the BaraG-Force VacVCD system, because of its ability to lower retention on cuttings and return more OBM to the active system.

### **COST BENEFITS SECURE BARAG-FORCE INSTALLATION ON EIGHT ADDITIONAL RIGS**

The savings and returns gained from using the BaraG-Force VacVCD system impacted several parts of the operator's waste management process, resulting in:

- » Average USD 7,500 saved per well in eliminated rig vac and vac truck costs
- » Average USD 5,000 gained per well in pit bottom OBM recovery
- » Total USD 25,000 gained per well in OBM recovered from cuttings while drilling

Based on these results, the operator requested the BaraG-Force VacVCD system for eight more of its rigs in the Bakken shale play.

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