

NOV BOND Yields Cost Savings and Waste Reduction in Stabilizing Water-Based Cuttings

Challenges

- Reduce costs associated with stabilization of water-based cuttings.
- Reduce waste volumes.

Well Information

- Location: Wyoming, USA

Solution & Results

- When NOV bond was used as a wood pellet replacement to stabilize water-based drill cuttings, operator's cost on materials was reduced by 50% or more. Overall waste volumes were reduced by approximately one-third.

NOV, in cooperation with an operator in Wyoming, conducted trials of NOV Bond as a potential replacement for treated wood pellets and flyash in stabilizing water-based cuttings.

Four wells were compared and the total stabilization products were tallied for each well. The cost effectiveness of each product was evaluated in the comparison. Pelletized wood cost was set at \$500 per ton, flyash at \$225 per ton, and NOV Bond at \$4,500 per ton. NOV Bond required a mixing attachment for the front end loader, and the rental cost was included in the analysis.

	Lateral - 1	Lateral - 2	Lateral - 3	Lateral - 4
Wood Pellets	3	9	19	55
FlyAsh	9	35	40	0
NOV Bond	53	24	0	0
Well Total Treatment Cost	\$11,587.50	\$15,075.00	\$18,500.00	\$27,500.00

Results demonstrate that when treated wood pellets are used exclusively, treatment costs can be \$27,500. This is consistent with or less expensive than previous wells tabulated for this operator and rig. When NOV bond was used as a wood pellet replacement on wells Lateral-1 and Lateral-2, treatment costs were reduced to \$15,000 and \$11,587, proving that NOV Bond can reduce operators' cost on materials by 50% or more.

The trial also confirmed the waste reduction potential of NOV Bond. One pallet of NOV Bond can replace 50 or more pallets of treated wood pellets that swell with moisture, significantly reducing overall waste volumes.



Successful waste reduction is evident in the lined pit at the pad location. Overall waste volumes were reduced by approximately one-third.

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