Proppant Choice at the Oil Well Drives Efficient Operations: In-Basin Sand is Cheaper Upfront, but Quickly Erodes Cash Flow and Profitability

SPRING, Texas, June 20, 2023 (GLOBE NEWSWIRE) — Smart Sand, Inc., a leading provider of sand, wellsite technology, and logistics solutions to the energy industry, (NASDAQ: SND) announces a groundbreaking conceptual whitepaper demonstrating the actual impact of proppant choice in wellsite profitability. This paper suggests that Permian operators may address their productivity concerns by revisiting In-Basin Sand usage and switching back to Northern White Sand.

Hydraulic Fracturing is a process utilized in oil & gas operations to hydraulically induce a fracture in an oil or gas-bearing geologic formation and subsequently place proppant (usually sand) in the newly created fracture to keep it open, thus allowing a conductive path for hydrocarbons to flow into the drilled wellbore. Proppant sand is a technical product historically mined and processed in Wisconsin and other states in the Upper Midwest, widely known as “Northern White Sand.” “In-Basin” or “Regional” sands are alternatives typically mined and processed much closer to the wells.

While Permian Basin well operators have moved to using In-Basin Sand over the last five years, primarily due to the lower cost to deliver the sand to the wellsite, a series of research studies demonstrate that Northern White Sand performs better throughout the well life and is almost always the better economic choice. This whitepaper analyzes three studies from Rystad Energy comparing well results in the Permian Basin from using Northern White Sand and In-Basin Sand, extrapolates results to a 10-year model, and provides an engineering simulation showing how Northern White Sand attributes and specifications drive superior performance. The importance of higher sustained “conductivity,” and the economic analysis of proppant choice are highlighted. The authors suggest that utilizing In-Basin Sand vs. Northern White Sand results in suboptimal cashflow and reduced long-term profitability.

The study’s primary author, engineer and 30-plus-year oilfield veteran Mark Malone, said “while Permian operators have migrated to In-basin Sand to reduce drilling and completion costs, we suspected that the longer-term production implications were not anticipated. This paper builds upon Rystad’s work, and from our perspective, shows that In-basin Sand cannot match the productivity of Northern White Sand for higher closure applications, and for the cases we examined, lowers profitability.”

The study shows the composite metric of “fracture conductivity” can be up to 4.5 times higher for Northern White Sand and that the economics of In-Basin sand may be progressively worse over time and enhanced in times of moderate to higher energy prices.

This whitepaper can be accessed at www.smartsand.com.

About Smart Sand:

We are a fully integrated frac sand supply and services company, offering complete mine to wellsite proppant logistics, storage and management solutions to our customers. We produce low-cost, high quality Northern White frac sand and offer proppant logistics, storage and management solutions to our customers through our in-basin transloading terminal and our SmartSystemTM wellsite proppant storage capabilities. We provide our products and services primarily to oil and natural gas exploration and production companies and oilfield service companies. We own and operate premium frac sand mines and related processing facilities in Wisconsin and Illinois, which have access to four Class I rail lines, allowing us to deliver products substantially anywhere in the United States and Canada. For more information, please visit www.smartsand.com.

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