

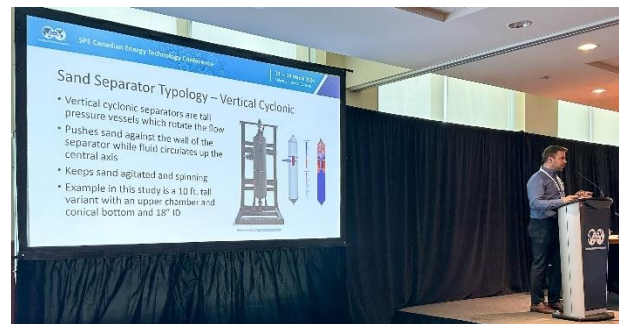
**FOR IMMEDIATE RELEASE:**  
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## RESEARCH SHOWS SANDTINEL VORTEX VESSELS REDUCE METHANE RELEASE ON FLOWBACK

**CALGARY, AB** – In a paper presented by Energera Lead CFD Researcher, Chris Johnston to the [Society of Petroleum Engineers \(SPE\)](#) on March 13, 2024, researchers found that Sandtinel Sand Separators have the lowest methane emissions of any form of sand separator for well flowback after hydraulic fracturing treatment.

The research found that about half of all emissions during the flowback operation were related to methane released during sand separator drain cycles.

These emissions were reduced to close to zero when the Sandtinel sand separators were drained as designed. In particular, Sandtinel vortex-style sand separators proved to emit 95% less methane over the course of the project compared to vertical cyclonic separators.



“While we had computer models which predicted this kind of performance, we were excited to be able to prove our models’ accuracy through direct observation and measurement.” Mr. Johnston noted.

Methane emissions have become a major focus of regulators in North America. Methane is a very potent greenhouse gas, initially trapping about 100X as much heat as CO<sub>2</sub>. As it breaks down more quickly than CO<sub>2</sub>, however, the effect begins to dissipate so that over 100 years, methane traps about 28X more heat than CO<sub>2</sub> (Source: MIT Climate Portal [Why do we compare methane to carbon dioxide over a 100-year timeframe? Are we underrating the importance of methane emissions? | MIT Climate Portal](#) ). Recent fines levied against operators of oil and gas sites have raised concerns that these operators may not have options readily available to mitigate the emissions.

The research described in the technical paper shows that there are existing technologies that can be used to dramatically reduce the amount of methane produced during flowback.

A summary of the presentation and paper can be found [here](#), and the full technical paper can be accessed through SPE OnePetro: “[Minimizing Fugitive Emissions in Post Fracturing Sand Separation Using A Vortex Separator](#)”

For more information on Sandtinel Sand Separators, please visit [www.sandtinel.com](http://www.sandtinel.com)

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Beginning in 2011 with Frac Shack and following the acquisition of Sandtinel in 2020, Energera was created in 2021 recognizing the need for powerful and impactful enertech solutions. Energera stands as an industry leader for change enabling energy development that is **smarter, greener, safer, and cleaner**, charting a path forward to a world where energy has far less environmental impacts, more affordable, and readily available for all.

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