

Case Study: Sand Management

Optimizing Sand Management with Smart, Real-Time Monitoring

Background

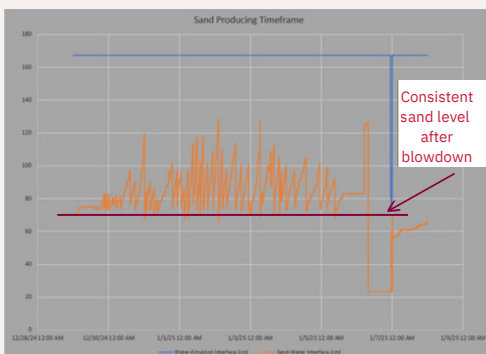
ENERCORP, a leader in sand management, was looking for a more efficient and data-driven method for internal sand quantification during flowback operations at Permian Basin, Texas, USA. Traditional manual methods were slow, inconsistent, and posed safety risks. ROCSOLE's SoliDetect1.0, using advanced Electrical Tomography technology, provides real-time, automated sand level monitoring. This helped ENERCORP improve accuracy, reduce delays, costs, and operate more safely and efficiently.



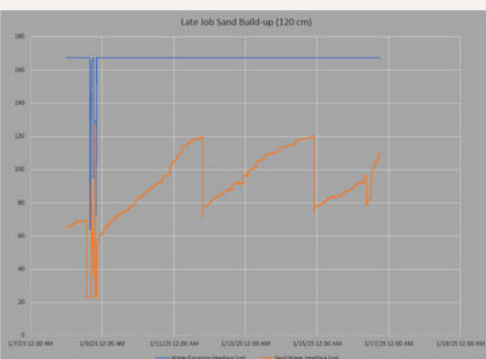
Customer: **ENERCORP**
Industry: **Oil & Gas**
Location: **Western Texas, USA**
in the Permian basin
Device Used: **SoliDetect1.0**
Installation: **December, 2024**

Solution Implemented

The ROCSOLE SoliDetect1.0 probe was installed in the unit to monitor sand levels in real-time, helping operators decide when to perform a blowdown. Once deployed, SoliDetect1.0 provided continuous, accurate sand level measurements, optimizing efficiency, reducing blowdown, and enhancing safety proven in real-world conditions at the Permian.



Picture 1: Sand production timeline post-installation of ROCSOLE SoliDetect1.0, showing stable sand levels after each blowdown.



Picture 2: The ROCSOLE SoliDetect1.0 accurately provided the sand level at 120 cm, enabling the customer to perform the blowdown correctly.

Results & Benefits

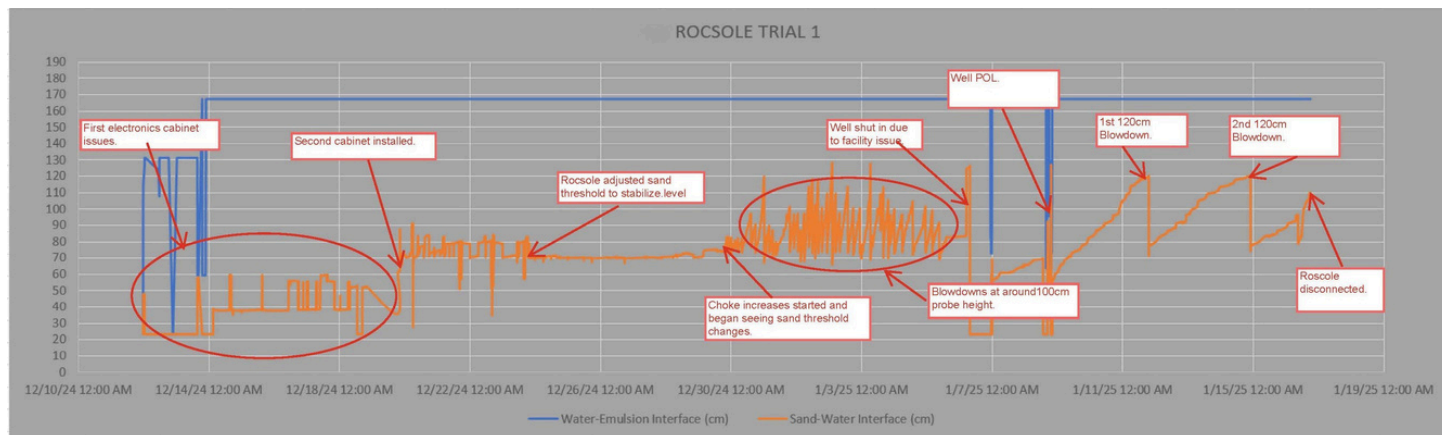
Optimized Process Control : ROCSOLE's SoliDetect1.0 delivers real-time, accurate sand data, enabling precise production adjustments and efficient Blowdown.

High Accuracy & Reliable Sand Level Monitoring : The probe consistently reached target sand heights (80 cm, 100 cm, and 120 cm) during the trial, ensuring precise sand level readings within the vessel.

Consistent sand level detection : The probe measured 1614 lbs of sand, while manual methods recorded 1395 lbs—a 15.7% difference due to sand loss during blowdown. This confirms the probe's superior accuracy and consistency over manual measurements.

Data-Driven Decision Making : Delivers actionable insights for operators to fine-tune flowback operations and improve long-term performance. eg. The sand level remained stable between 65.91 cm and 78.91 cm, with an average of 73.04 cm, ensuring controlled and predictable sand removal.

Smarter Sand Management with SoliDetect1.0



Picture 3: Shows The ROCsole SoliDetect1.0 effectively maintained the sand levels and consistency over manual measurement.



Picture 1 : ROCsole SoliDetect1.0 installation in ENERCORP Sahara Sand Cyclone.

Conclusion

The implementation of ROCsole's SoliDetect1.0 has proven its ability to enhance flowback operations, delivering greater safety, efficiency, and reliability. By enabling automated blowdown at precise, user-defined sand levels, it optimizes sand management and minimizes operational risks. With real-time monitoring and intelligent automation, operators can proactively prevent blockages, extend equipment life, and improve overall production efficiency.

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