



# GeoDeck: Turning Subsurface Data into Actionable Insights

## Company:

**TEVERRRA GeoDeck**, a subsidiary of Teverra, is developing a bundle of tools to enable real-time monitoring of fluid (CO<sub>2</sub>, Water or Oil and Gas) movement in subsurface for agile decision making, to mitigate the operational risks, environmental hazards, and save the energy industry significantly. TEVERRRA, established in 2014, is dedicated to harnessing the Earth's resources for clean and reliable energy generation and storage. We serve the energy industry by offering innovative subsurface solutions, developing cutting-edge technologies, providing consulting services, and executing global projects to promote a sustainable low-carbon energy mix. Our track record includes the successful completion of numerous geothermal, CCS, and oil and gas projects worldwide.

## Opportunity:

Accurately tracking subsurface fluid movement is crucial for minimizing risks in fluid injection and production, ensuring the safe storage of CO<sub>2</sub>, H<sub>2</sub>, and energy in underground formations, and optimizing flooding operations. However, existing monitoring technologies are costly and often struggle to efficiently transmit, process, and interpret field data in real time. They also lack seamless, intuitive visualization capabilities, limiting timely decision-making, risk mitigation, and overall operational efficiency.

## Solution:

Teverra is pioneering a groundbreaking technology for near real-time monitoring of subsurface fluid movement. This innovative solution integrates three core components:

- ▶ High-fidelity data compression to ensure all critical field data is transmitted to the processing center in real time.
- ▶ ML-assisted imaging to accelerate data processing and interpretation, reducing turnaround time from month to days or even hours.
- ▶ Lightweight visualization platform to deliver intuitive, user-friendly insights for decision-makers.

This transformative tool will:

- ▶ Enable immediate transmission of valuable field data for real-time analysis.
- ▶ Convert complex datasets into actionable insights 10x faster than current technologies.
- ▶ Provide decision-makers with seamless, intuitive visualization for enhanced situational awareness.
- ▶ Proactively detect and mitigate risks, such as CO<sub>2</sub> leakage, fault reactivation, and unexpected plume movement, before they escalate.
- ▶ Optimize storage efficiency by enabling real-time tracking and control of CO<sub>2</sub> migration.
- ▶ Reduce monitoring costs significantly while increasing storage asset value by up to 160%.

## Technology Status:

GeoDeck is currently supported by over \$5 million in DOE grants and is at TRL 4. The technology's two key components are ready for field testing, while the third is in prototype development. This progressive development makes it a highly promising tool for subsurface monitoring.

## Intellectual Property:

The core technologies were developed in-house, and with no publications to date, the IP is well-protected. Patent applications for two key tools are planned for submission in 2025, strengthening the product's competitive edge.

## Product/Business:

GeoDeck is designed to transform subsurface monitoring, visualizing dynamic fluid changes in real-time similar to a live broadcast. This will empower users to take prompt, informed actions to mitigate risks and optimize profitability. Its technological and cost advantages position it as a market leader in subsurface monitoring.

### ▶ Market:

The technology serves a vast, global market, including oil and gas, geothermal, carbon capture and storage (CCS), and emerging energy and hydrogen storage. With the CCS market alone estimated to exceed \$250 million annually, the opportunity for GeoDeck is substantial.

### ▶ Commercialization Strategy:

We plan to offer GeoDeck as an annual software license, with a financial model built around this delivery format and complementary pull-through services. Additionally, we are exploring deployment options as a Software-as-a-Service (SaaS) and as a plug-in module, facilitating easier integration of our technology into clients' existing systems. The initial market entry will focus on larger oil and gas operators expanding into the CCS market, as well as geothermal and energy storage sectors. Field testing is scheduled for 2026, with full commercialization expected by 2027. Global expansion is planned for 2028, and a strategic exit is targeted for 2032.

### ▶ Financial Projections:

We project annual revenues from \$0.8 million to \$18 million from 2027 to 2032. Cumulative revenues over five years are expected to exceed \$35 million, with net income surpassing \$11.5 million.

## Team:

Currently, the company employs 10 full-time staff and 5 consultants. The team is projected to expand to 15 employees by the end of 2025, scaling to meet demand as the company progresses through its commercialization phases.

## Ask:

We are raising \$5 million in seed funding in exchange for 40% equity to accelerate the development and commercialization of GeoDeck. Join us in revolutionizing subsurface energy operations, enhancing efficiency, safety, and profitability, and paving the way for a sustainable energy future.



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