



CASE STUDY



Deep Sky Saves Time and Lowers Risk with SeisWare

AT A GLANCE

A BOLD LEADER COMMITTED TO FIGHTING CLIMATE CHANGE

Based in Montreal, Canada, Deep Sky is an IP-agnostic carbon removal project developer. They use direct air capture and direct ocean capture to remove CO₂ from the atmosphere to store it safely underground and reverse global warming. The company has been in operation for more than a year, spearheading projects in nearly every province in Canada.

A LONGSTANDING RELATIONSHIP FORMS A FOUNDATION FOR THE FUTURE

As Deep Sky's Vice President of Subsurface and a SeisWare user since 2005, Greg Maidment was able to bring SeisWare into consideration when Deep Sky needed a solution for subsurface and geological interpretation. The Deep Sky team now relies on SeisWare for geological and seismic interpretation that underpins safe operations, reduces risk, and increases efficiency as the company grows.

A FULLY INTEGRATED PLATFORM LEVERAGED FOR GOOD

SeisWare's Geoscience Exploration platform allows Deep Sky to move past obstacles like a lack of existing industry data to create fulsome interpretations to de-risk and understand the subsurface. This allows Deep Sky to lower risk across its operations and move forward to safely inject CO₂ underground.

INNOVATIVE AND PURPOSE-DRIVEN LEADER IN CARBON REMOVAL

Deep Sky is a Canadian venture aiming to remove gigatons of CO₂ from the atmosphere at an unprecedented rate by building infrastructure to scale carbon dioxide removal systems in a tangible way. The company partners with leading technology innovators to develop projects for maximum impact in reducing atmospheric carbon dioxide. Starting with a team of three, Deep Sky has expanded to a team of 20, with plans to grow to 30 to 40 employees by the end of 2024.

FINDING A TRUSTED PARTNER TO LOWER RISK AND INCREASE IMPACT

Interpreting existing or new seismic data is already incredibly complicated. Finding a software package to do interpretation swiftly and easily and tie it to real geology and tangible production results was not easy to find.

Some technologies allow granularly detailed interpretations, but most lack a user-friendly, easy system for interpretations tied to logs, tied to production, and tied to results. Deep Sky needed a fully integrated platform to support interpretations and manage projects with confidence.

"The whole point of geologic exploration is to de-risk the subsurface, to de-risk what's underneath our feet," says Greg Maidment, VP Subsurface. "So whether or not that's for production or injecting CO₂, our goal is to make sure it's safe for everybody. And you need to be able to visualize that and show it to other people in a simple manner."

“SEISWARE NOT ONLY ALLOWS US TO DE-RISK AND UNDERSTAND THE SUBSURFACE BUT TO LEARN AND IMPROVE OUR PROCESS FOR EVERY SUBSEQUENT OPERATION.”



A multitude of minute details are involved in understanding the subsurface. Tying these to actual geologic interpretations and variability could be incredibly overwhelming without a robust platform that allows for clear visualization of data.

RENEWING A TRUSTED PARTNERSHIP FOR A ROBUST AND DEPENDABLE INTERPRETATION PLATFORM

Deep Sky needed a geoscience interpretation tool that would be user-friendly, trustworthy, and that could allow it to scale operations efficiently and reliably.

The company needed a way to easily visualize and share data with stakeholders. While Maidment has nearly two decades of experience with SeisWare, the team did their due diligence to ensure the platform was the best fit for Deep Sky. With SeisWare's long-standing reputation as a trusted provider in the oil and gas industry, the choice was easy.

Deep Sky chose SeisWare's Geoscience Exploration solution for its seismic and geological interpretations, knowing the application would provide quick and straightforward project development for the entire team.

“SeisWare was always the fastest, easiest solution,” says Maidment. “There's no learning curve. When I had to look for a new subsurface interpretation tool for Deep Sky, I knew there was no other tool that would allow us to jump on and start interpreting right away – certainly not at this price point.”

SeisWare quickly and efficiently shows risks and de-risk operations in any space, whether through its map view or 3D space. SeisWare's

Geoscience Exploration platform also shows how the geoscience and location data tie together into a fully integrated view.

“Even though learning new software can bring some trepidation, nobody on the team was stressed,” says Maidment. “SeisWare is well-known and established, so we knew we were in for a smooth process, and if we needed answers, we'd get them.”

LOWERING RISK, DRIVING EFFICIENCY, AND SAVING TIME

SeisWare provides Deep Sky with a trustworthy platform that allows a holistic, well-rounded understanding of all the datasets involved in robust subsurface interpretations for ambitious carbon removal projects across the country.

“Implementation was almost immediate,” says Maidment. “It comes down to knowing how fast, efficient, and accessible you need your solution to be. We made a decision on SeisWare, and everyone was using it the following week.”

Without SeisWare's integrated platform, Maidment estimates Deep Sky would need four or five different software platforms to support the same functionality. More people would be needed to manage it all – not just the different software platforms, but to integrate the information between them efficiently.

With the seismic and geological interpretations integrated into one application, Deep Sky can manage risk and understand major geological faults. The company can confidently identify and mitigate risks and demonstrate to stakeholders the level of responsibility Deep Sky takes in this area.

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SeisWare allows Deep Sky to combine geological and geophysical data to understand the subsurface, determine the best path forward, and carry out critical projects that will have long-lasting impacts in the fight against climate change.

Trustworthy data and fulsome interpretation allow Deep Sky to offer an elevated level of reassurance to stakeholders and community members that the company is operating with the utmost care and caution in every process and project.

With SeisWare's intuitive platform, the Deep Sky team can execute the necessary projects and interpretations with an estimated 50% fewer staff hours. Using the full SeisWare package to de-risk these projects has nearly doubled the company's ability to inject CO2 underground.

These are tangible results that increase Deep Sky's efficiency and boost productivity while making high-profile projects safer. Plus, the software has been easy for the whole team to implement and use.

“Measuring success is almost instantaneous,” says Maidment. “If anyone is frustrated trying to build a project or make a map, it's a clear indicator of an issue. Usability is critical, as is a robust support team.”

SeisWare's geoscience platform is backed by an expert support team of geoscientists who aren't just able to troubleshoot software but are savvy enough to walk through challenges and alleviate friction.

A STRONG FUTURE PARTNERSHIP TO HELP COMBAT CLIMATE CHANGE

Deep Sky looks forward to continuing to scale its operations throughout Canada, increasing its capacity to build carbon removal systems, and relying on SeisWare's interpretation solutions to do so as safely and efficiently as possible.

Carbon removal is an ongoing learning and iterative process that demands deep insights into the subsurface to continue injecting CO2 underground, especially at a more efficient rate. The right tools are critical to creating baseline models of one location, and then building on those learnings to increase their impact.

“Canada is leading the world in carbon removal and CO2 storage, and the space is absolutely exploding,” says Maidment. “I'm really excited to showcase Canada's ability and expertise in this area on a technological and interpretation level.”

Deep Sky is aiming to remove billions of tons of carbon from the atmosphere and permanently store it underground, where it belongs. SeisWare is proud to help them do it.



GREG MAIDMENT
VP Subsurface, Deep Sky

Greg Maidment has over 20 years of experience in the oil and gas industry and is the Vice President of Subsurface for Deep Sky, a carbon removal project developer in Canada. He is responsible for all activities after carbon capture, from transportation and facilities to injection and subsurface. He oversees the technical teams for geological assessment, geophysical assessment, petrophysics, reservoir engineering, injection design, completion design, drilling, well completion, and the safe execution of all projects.