Unlocking Petroleum Exploration Potential in an Underexplored Active Margin

Area of Expertise:
Exploration

Enterprise Solution:
ThinkOnward Projects

The project, which was conducted along the Pacific margin, aimed to explore the petroleum exploration potential of an underexplored active margin. It spanned 10 weeks with multiple experts leveraging industry standard software tools such as Petrel and ArcGIS. Led by three exploration geologists, the project adopted a collaborative approach, with each team member sharing independent perspectives on the data and their interpretations. The project's objective was to provide fresh insights and identify potential petroleum plays in an area with minimal historical exploration.

Challenge

The primary challenge facing the sponsor was the immaturity of oil and gas exploration in the targeted active margin. The key question was what kind of plays were worth pursuing and if they were material. The initial phase focused on assessing available data and identifying potential areas of interest. A secondary challenge was the lack of internal resources to staff and manage the day-to-day project.

Solution

To address the challenge, the ThinkOnward project team adopted a collaborative approach by engaging three exploration geologists. They initiated the project by publicly posting job descriptions to attract diverse talent, ensuring a mix of complementary expertise among team members. This approach facilitated efficient acquisition of an expert team in under four weeks as well as data gathering from the public domain within the limited timeframe.

Implementation

The team of geologists integrated publicly available yet disparate data sources to develop a comprehensive understanding of the area. The team worked for 10 weeks with project oversight by the ThinkOnward team and technical steer from the client. Ultimately, they formulated and delivered a set of fresh perspectives and robust recommendations for potential petroleum plays.

Result

The project provided significant benefits to the client, such as faster decision-making and time savings. The insights generated by the project enabled the client to make informed decisions in a shortened period of time. Additionally, the project expedited the exploration screening process, achieving results over three months earlier than alternative approaches available to the client.

Moreover, the project played a crucial role in rethinking the sponsor's future exploration strategy for this region. For instance, the project identified promising deep-water areas for further evaluation, prompting the sponsor to allocate resources for a detailed study. The project also influenced the sponsor's decision to deploy a team for a focused subsurface evaluation leveraging available in-house data, to assess feasibility for a potential opportunity and country entry. The results of the project were included in a subsequent global play screening and ranking exercise further demonstrating the usefulness and significance of the project's findings.

Conclusion

In summary, the project exemplifies the power of collaborative expertise and strategic data utilization in unlocking the petroleum exploration potential of underexplored regions. By leveraging diverse crowdsource talent with specialized skills and integrating disparate data sources, the project delivered unique actionable insights, accelerating decision-making and paving the way for future exploration endeavors.

- **Comprehensive Perspective** - Three independent exploration geologists collaborated to integrate disparate data that offered a more complete understanding of the area.
- **Increased Efficiency** - Months of time was saved over resourcing the project internally.
- **Empowered Decisions** - The overall exploration strategy and increased investment was supported with comprehensive data.

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