COVENANT OIL FIELD, CENTRAL UTAH THRUST BELT: POSSIBLE HARBERING OF FUTURE DISCOVERIES

SUMMARY

- Covenant Field is located in the central Utah thrust belt, or "Hingeline.
- The geology is a natural extension of producing formations in the Uinta Basin.
- The field is situated within the Navajo Sandstone formation, which is a source rock for hydrocarbons.

GENERAL FIELD OVERVIEW

- Covenant Field is bounded by the Jutg and Koin structural highs and the Jtcl fault.
- The field is divided into three plays: the Canyon Trend, the Meadow Trend, and the Wilson Trend.

COVENANT FIELD RESERVOIR: EOLIAN JURASSIC NAVAJO SANDSTONE

- The Navajo Sandstone is the primary reservoir in the field.
- Bedding thickness, lithofacies, and porosity variations affect reservoir properties.

STRUCTURAL GEOLOGY

- The field is characterized by a series of anticlines and faults.
- Diagenetic processes such as compaction and cementation have altered the original depositional characteristics.

OIL CHARACTERISTICS

- The oils from the Navajo Sandstone range in gravity from 40.5 to 42.5º API.
- Sulfur content varies from 0.4 to 1.0%.
- Color is dark brown to black.

REFERENCES

- Sofer, Zvi, 1984, Stable carbon isotope compositions of crude oils - application to source depositional environments.

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WHAT'S NEXT?

- Exploration efforts continue to identify additional potential play areas.
- Technological advancements in drilling and recovery techniques will be critical for future discoveries.