Can post-stack inversion predict reservoir thickness

The post-stack inversion and pre-stack simultaneous inversion technology of constrained sparse pulse were used to convert the seismic data into shale gas reservoir quality ...

The synthetic tests show that the superior anti-noise performance of post-stack impedance can provide a reliable initial model for reservoir parameter prediction, and can significantly improve the accuracy ...

Abstract Seismic post-stack inversion facilitates the interpretation, mapping and quantification of hydrocarbon-bearing zones. This study estimates reservoir properties (i.e. acoustic ...

The improved technique is applied to predict a distribution and thickness map of a channel system. The results demonstrate that our improved cokriging system can enhance the lateral resolution of the ...

The test results show that pre-stack geostatistics inversion can effectively improve the prediction accuracy of thin glutenite reservoir, thus improving the drilling rate of horizontal wells.

On top of that, the post-stack deterministic inversion depends on the ONS seismic reflection coefficient, sampling, and frequency (50 Hz) being higher than the SW thinly bedded ...

The most recent attempt in NE Abu-Gharadig Basin was applied for Abu Roach/C reservoir in 2020 [6]. Post-stack stochastic seismic inversion was used in this study to delineate Abu ...

This study aims to improve reservoir characterization by (1) defining reservoir morphology and stratigraphic connectivity using spectral decomposition, (2) estimating lithology and ...

is a core technology for reservoir prediction (Zhou, 2015). We established the relationship between the seismic and evaluation parameters and proposed using Jason"s constrained sparse pulse post-stack ...

Seismic inversion is a pivotal technique in reservoir characterization, enabling the transformation of seismic reflection data into quantitative rock properties to elucidate subsurface characteristics.

Pre-stack inversion produces more petrophysical parameters sensitive to fluid and rock properties than post-stack inversion (Maurya & Sing, 2018) and makes AVO/AVA analysis possible.

The findings elucidated the distribution range of the Baikouquan Formation and the location of oil reservoir sand bodies, as exemplified by well B and identified potential hydrocarbon ...

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With the continuous advancement of oilfield exploration and development, the demand for accuracy in reservoir prediction is increasing. Therefore, high-precision reservoir inversion ...

Summary Unconventional oil and gas distribution often presents thin reservoir thickness, and it is difficult to identify the thin layers by traditional methods. Post-stack impedance information is an important ...

Seismic inversion is used to evaluate hydrocarbon reservoirs by inferring subsurface physical properties from seismic data. The most prevalent seismic inversion method is post-stack ...

This work aims to use and compare the results of these two generic seismic post-stack inversion methods for characterizing the reservoir. The inversion reveals the presence of low acoustic ...

This study shows how an integrated high-resolution 3D seismic, post- stack seismic inversion, geological depositional model and geostatisti- cal analysis can be used to predict the reservoir ...

Previous studies have successfully used seismic waveform characteristics to delineate sedimentary facies and predict reservoirs, demonstrating their value in identifying lithology variations and thin ...

The P-impedance attributes derived from post-stack seismic inversion utilized with the distributed petrophysical properties (density) predict the occurrence probability of the distinctive ...

The pre-stack inversion method differs from post-stack inversion methods by incorporating offset or angle analyses of seismic gathers and well-logging data. This allows for the ...

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