

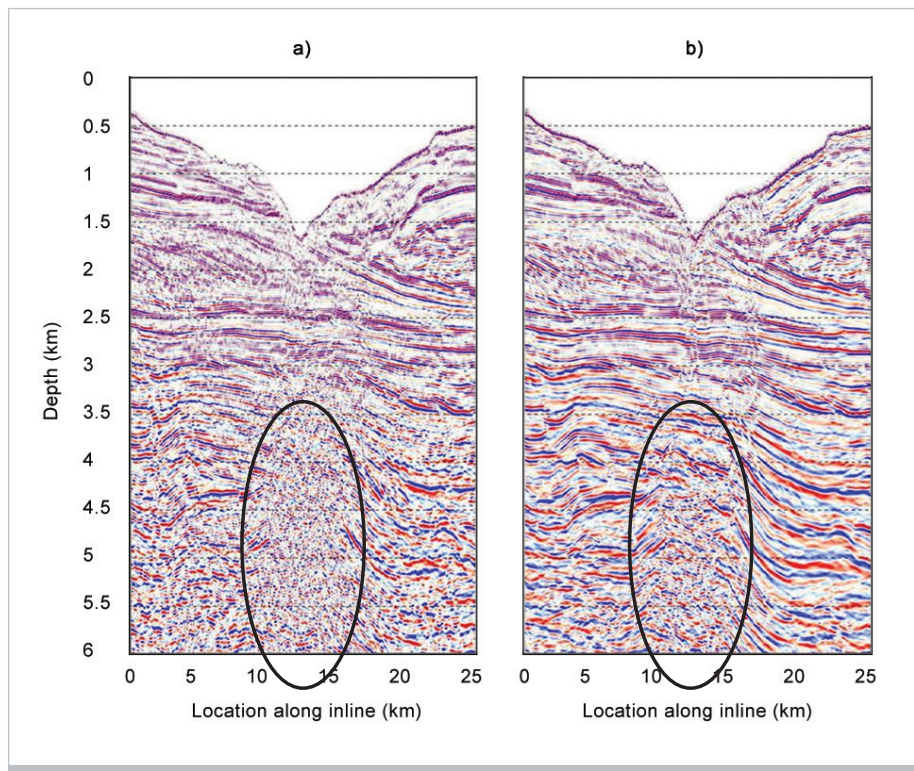
# Imaging a Hidden Structure in a Complex Basin

## The Challenge

In a complex basin in offshore Australia, drilling activities based on previous depth images of the subsurface had resulted in dry wells. The customer approached Paradigm with a request to re-evaluate the subsurface model, using the new EarthStudy 360 full-azimuth angle domain imaging system.

## The Solution

EarthStudy 360® has the unique ability to decompose the scattered wavefields into their directional components. This results in two types of scattered waves: Specular and diffraction. By increasing the contribution of the specular energy to the total depth image, we were able to enhance the continuity of the structure's reflectors, and remove the "noisy" diffraction energy



▲ Imaging a "hidden" structure in offshore Australia: Kirchhoff depth image on the left, full-azimuth specular weighted image on the right

## The Results

Armed with this new information, the customer was able to accurately plan the well. In the words of the customer, the EarthStudy 360 system "hit a home run" in this reservoir.