

The Ichthys Giant Gas-Condensate Field

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The Ichthys giant gas-condensate field is located in the northern Browse Basin of the Australian North West Shelf. The field lies 220km offshore, in 260-280m water depth. The first well drilled in the field area was the untested Brewster-1A (1980). In 1998 Inpex Browse, Ltd. (INPEX) was awarded the WA-285-P block, drilling 3 wells in 2000-2001. Gas discoveries were made in the Brewster Member of the Upper Vulcan Formation and in the Plover Formation. Three follow-up wells were drilled in 2003-2004.

The Brewster Member (*K. wisemaniae*, Berriasian), is a thick sequence of high NTG sands, interpreted as mid-slope grainflows on a deep-water ramp. The trap is a broad drape structure with mainly dip closure, occupying about 400km² within WA-285-P. It contains a wet gas column of about 200m and is full to spill.

The Plover Formation consists of fluviatile to paralic sands, with interbedded claystone and coal, of mainly *C. turbatus* (Toarcian – Bajocian) age. The nature and distribution of interlayered extrusive basaltic volcanics is vital to the determination of the net reservoir distribution. The Plover trap is defined by dip closure and faulting and the trap volume is internally faulted, but not compartmentalised. Like the Brewster Member, a gas column of about 200m is present in the Plover Formation and the closure appears to be full to spill.

The Plover gas is drier than the Brewster gas. The pools are not in communication but both are currently considered to have a Plover source. Thin gas-charged sands are present between the two main reservoirs. The Ichthys gas-condensate field has the potential to be a major offshore Western Australian project, and INPEX is now working towards the commercialisation of this large resource.