

PROSPECT DATA SHEET

EDDYSTONE

CATEGORY	Prospect		
LOCATION	Seismic line HB77A-332 Sp 105 (Middle <i>M.diversus</i>) Seismic line SB94A-147 Sp 65 (Palaeocene)		
DESCRIPTION OF TRAP	Large tilted fault block on the upthrown side of a northwest trending fault southwest of Pelican Field.		
PRIMARY OBJECTIVES	EVCN	-	Middle <i>M.diversus</i> Palaeocene
MAXIMUM CLOSURE	EVCN	-	Middle <i>M.diversus</i> 18.03 square kilometres Palaeocene 22.15 square kilometres
SECONDARY OBJECTIVES	None		
DEPTH TO RESERVOIR	EVCN	-	Middle <i>M.diversus</i> 2260 mSS Palaeocene 2715 mSS

DESCRIPTION OF RISK ELEMENTS

SOURCE

Eddystone is located directly above the mature source kitchen for the Pelican Field gas and condensate accumulation and therefore is ideally located to receive hydrocarbon charge. At Eddystone the middle *M.diversus* is early to mid mature for oil generation increasing to mid mature at the top Palaeocene and late gas generation at basement.

Cross relay ramp faulting may pose a barrier to migration into the prospect from the north and south. Vertical migration is therefore considered the most likely charge model for Eddystone although there is potential for sourcing the lead from source rocks in the middle *M.diversus* and Palaeocene to reservoir sequences in the lower and middle *M.diversus* by face loading. Similarly source sequences in the Cretaceous and deeper Palaeocene could face load into Palaeocene reservoirs.

The simpler structural form of Eddystone, compared with the fault compartmentalised Pelican Field may also assist in providing simpler migration routes. Source rock is rated as low for gas charge, moderate to high for oil at the middle *M.diversus* and high for oil at the Palaeocene.

RESERVOIR

Regional porosity versus depth profiles predict an average porosity for the middle *M.diversus* of 21% and 18% for the Palaeocene. The lead is approximately 100 metres updip of Pelican Field at the top of middle *M.diversus* which provides the possibility of improved permeability preservation, compared to that which occurs in Pelican 5. Reservoir risk is therefore considered to be low at the middle *M.diversus* and high in the Palaeocene.