## **BALA-BALAKANG PSC**

# Makassar Strait, Indonesia Investment Opportunity



KrisEnergy (KE) is seeking a partner(s) to participate in the Bala-Balakang PSC. Bala-Balakang is a unique entry opportunity into frontier exploration in a proven play in close proximity to infrastructure. The current aggregate in-place resource within the Block is in excess of 8 tcfg.

### The Opportunity

Bala-Balakang is situated offshore Makassar Strait, 90km from Eni's Jangkrik Field and 10km from the Ruby Field gas pipeline. The Block straddles the shallow waters of the Paternoster platform and the deeper waters of the Kutei Basin, with water depths across the Block ranging up to 1,800m.

The Bala-Balakang PSC was signed by Serica on December 9<sup>th</sup>, 2011 through direct offer. KrisEnergy (KE) acquired Serica's operating interest in the Block through acquisition of Serica's Indonesian assets in October, 2011 (*originally named as the Tanjung Aru PSC*, the Government of Indonesia renamed the Block to Bala-Balakang in January, 2015). KE holds an 85% operating interest in the Block, and all firm work commitments have currently been fulfilled.

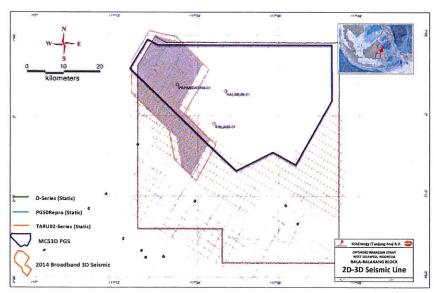


Figure 1. Bala-Balakang PSC location and database Offshore Makassar Strait, Indonesia

### The Play

Hess and Petronas licensed the Block in 2001 and drilled three (3) exploration wells. Halimun-1 and Papandayan-1 targeted an Upper Miocene turbidite fan identified on a PGS multi-client 3D (encountered, but mud prone). Secondary targets were Plio-Pleistocene seismic amplitude anomalies that were found to be gas bearing. Analysis of the gas samples determined the gas was of biogenic origin.

In 2005 Hess drilled Rinjani-1 to test a preserved section of Mid-Lower Miocene strata; a minor gas discovery was made in the Miocene section, with syn-rift Oligocene carbonates penetrated at total depth.

The primary play on the Block is analogous to the successful Jangkrik/Gendalo/Merakes play immediately to the north; Plio-Pleistocene - Upper Miocene sandstone reservoirs yield attribute anomalies that are readily observable on seismic data. The hydrocarbon accumulations in the play are controlled by both stratigraphic and structural trapping elements that typically exhibit lateral terminations due to stratigraphy and structurally conformable seismic attributes typical of slope channel and fan deposits. Faced with very poor seismic imaging under the present day shelf-slope break, KE acquired 500km2 of 3D seismic data using broadband acquisition technology during 2014 (Figure 1). PaleoScan software was used on the 3D seismic data to quantify the resource potential of the many seismic attribute anomalies observable on the Block.

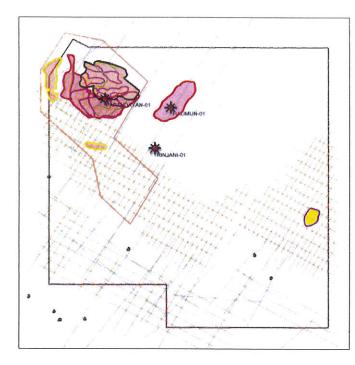
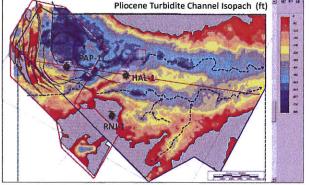


Figure 2. Bala-Balakang PSC Prospect and Lead Inventory

	Pliocene Depth (ft ss)
A CONTRACTOR OF THE PARTY OF TH	IAL-1
RNJA	

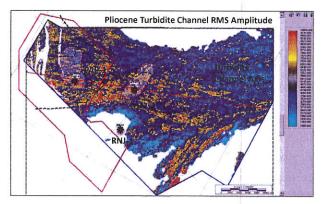


Prospect	Lobe Fan	Gas In-Place (BCF)			
		P90	P50	P10	Mean
1. Northwest (NW) Papandayan	PP-UM- MM	1,277	3,071	7,250	3,811
2. North Papandayan	PP-UM- MM	1,137	2,392	4,731	2,724
3. South Papandayan	PP	43	113	290	146
4. West Papandayan	pp*	207	454	944	529
5. Halimun	P-UM- MM	304	755	1,607	875
6. East Pliocene Lead	P	61	131	273	153
TOTAL Bala-Balakang PSC (BCFG)		3,029	6,916	15,095	8,238

It is expected that further successful exploration on the Block will yield biogenic gas in Plio-Pleistocene reservoirs at depths less than the biogenic floor. Thermogenic hydrocarbons sourced from Lower Miocene shales and Oligocene (syn-rift) deposits could be encountered in Miocene reservoirs; however, post well analysis of the Rinjani-1 well determined the source rock potential of the Miocene and Oligocene section to be relatively low.

The remaining potential on the Block is focused on two large structural closures that make up the Halimun and Papandayan prospect areas (Figures 2 and 3), where outer slope and upper bathyal turbidite channels and fans were deposited across the block during the Pleistocene to Lower Miocene. A late inversion stage during the Upper Pliocene/Pleistocene, created the Halimun and Papandayan structures as prominent focus points for biogenic gas accumulations.

Figure 3. Halimun & Papandayan Depositional Model



#### **Terms**

Kris Energy is offering up to 42% working interest in the Block at ground floor for pro-rata share of back costs and a full well carry.

#### **Contacts**

Dr. Gadjah E. Pireno Exploration Manager Indonesia KrisEnergy Ltd (Indonesia) gadjah.pireno@krisenergy.com Mike Whibley
Vice President Technical
KrisEnergy Ltd (Singapore)
mike.whibley@krisenergy.com