





Figure 1: Buffalo Field Layout Schematic

## **About Buffalo Redevelopment Project**

Carnarvon was awarded the WA-523-P acreage in May 2016 for an initial six-year term which included the previously developed Buffalo field. The Field was discovered by BHP in 1996 and subsequently developed using four wells drilled from a small, unmanned wellhead platform installed in 25 metres water depth, tied back to an FPSO. Production commenced in December 1999 at production rates up to approximately 50,000stb/d and terminated in November 2004 after the production of 20.5MMstb of highly-undersaturated, light oil (53°API) from the Jurassic-age Elang Formation. All existing facilities and wells were decommissioned and removed prior to Carnarvon being awarded the block.

Carnarvon initially focussed its technical work on reprocessing of the 3D seismic dataset using state-of-the-art full waveform inversion (FWI) technology. This work supports the interpretation of a significant attic oil accumulation remaining after the original development, based on sub-optimal positioning of early wells using poorly processed seismic data. Reservoir modelling has been conducted using latest structural interpretation and available well data, including an extensive history-matching effort to calibrate model/well performance to production rates and watercut development (governed by strong aquifer drive) observed during the original production period. Based on this work, independently audited volumetric estimates of contingent resources in the Buffalo oil field are 31.1 million barrels (2C) with high and low estimates of 15.3 million barrels (1C) and 47.8 million barrels (3C) – Refer to Carnarvon Petroleum’s ASX announcement on 28 August 2017.

Carnarvon is not aware of any new information or data that materially affects the resource information included in this report and that all material assumptions and technical parameters underpinning the estimates in this announcement continue to apply and have not materially changed.

The estimates of contingent resources included in this report have been prepared in accordance with the definitions and guidelines set forth in the SPE-PRMS.

A combination of deterministic and probabilistic methods were used to prepare the estimates of these contingent resources.

The resource estimates outlined in this report were prepared by the Company’s Chief Operating Officer, Mr Philip Huizenga, who is a full-time employee of the Company. Mr Huizenga has over 20 years’ experience in petroleum exploration and engineering. Mr Huizenga holds a Bachelor Degree in Engineering, a Masters Degree in Petroleum Engineering and is a member of the Society of Petroleum Engineers. Mr Huizenga is qualified in accordance with ASX Listing Rules and has consented to the form and context in which this statement appears.