23 March 2022

Significant Pavo oil discovery near Dorado development

Santos today announced the Pavo-1 exploration well has confirmed a significant oil discovery 46 kilometres east of the Dorado field in the Bedout Sub-basin, offshore Western Australia.

The well was drilled on the northern culmination of the greater Pavo structure and encountered a 60-metre gross hydrocarbon column in the primary Caley member reservoir target. Wireline data has confirmed 46 metres of net oil pay, with an oil-water contact intersected at 3,004 metres measured depth (MD). Excellent reservoir quality is interpreted from logs with 19 per cent average porosity, permeabilities in the 100 to 1,000 millidarcy range and hydrocarbon saturations averaging 80 per cent, similar to that encountered in the Dorado field.

Wireline logging operations to collect pressure, sample and rock data across the target Caley reservoir to inform resource volume estimates have been completed. Initial indications from rig site analysis are of a light sweet oil (~52 degrees API) with a low gas-oil ratio.

A 2C contingent resource for the northern culmination is assessed at 43 million barrels of oil (mmbbl) gross (Santos 70 per cent interest 30 mmbbl).

The result at Pavo-1 also significantly de-risks the hydrocarbon bearing potential of the separate southern culmination of the greater Pavo structure. The southern culmination has an additional best estimate P50 prospective resource of 40 mmbbl gross (Santos 70 per cent interest 28 mmbbl). Probability of geologic success for the prospective resource in the southern culmination is assessed at 60 per cent.

Santos Managing Director and Chief Executive Officer Kevin Gallagher described the Pavo discovery as a great result that could add further material value to the Dorado project through a potential low-cost tie-back to the proposed Dorado facility.

“The Pavo-1 success is expected to support a potential low-cost tie-back to the first phase of the proposed Dorado development, with Pavo north having an estimated breakeven cost of less than US$10 per barrel, and future gas production from the Bedout basin providing a source of supply into our existing domestic gas infrastructure in Western Australia,” Mr Gallagher said.

“With the global oil and gas markets seeing increased volatility, low-CO2 oil and gas resources at Dorado and Pavo add significantly to Australia’s national energy security.

“It is also very encouraging for the next exploration well in the current campaign, Apus-1, which offers another potential nearby low-cost tie-in opportunity to the Dorado development.

“The Pavo-1 well result also proves the petroleum system in the basin is effective over a greater area, de-risking a number of nearby low-cost opportunities.”
The Pavo-1 well is being drilled using the jack-up mobile offshore drilling unit, Noble Tom Prosser, in a water depth of approximately 88 metres and is currently drilling ahead to the final planned total depth of approximately 4,200 metres MD. The deepening of the well is focused on Early Triassic and Upper Permian stratigraphy not previously drilled in the basin and will provide key information to de-risk a significant number of gas and oil prospects in the Bedout Sub-basin.

Once wireline logging operations are completed at final total depth, the well will be plugged and permanently decommissioned as planned, and the rig will move to the Apus-1 well location 20 kilometres south-west of the Pavo-1 well location.

Pavo-1 is located in petroleum permit WA-438-P (Santos 70 per cent and operator, Carnarvon Energy 30 per cent). It is approximately 160 kilometres north-northeast of Port Hedland and around 46 kilometres east of the Dorado field.

Pavo field location map, Bedout Sub-Basin, offshore Western Australia

This ASX announcement was approved and authorised for release by Kevin Gallagher, Managing Director and Chief Executive Officer.
Cautionary statement regarding resource estimates

This release contains forward looking statements that are subject to risk factors associated with the oil and gas industry. It is believed that the expectations reflected in these statements are reasonable, but they may be affected by a range of variables which could cause actual results or trends to differ materially, including but not limited to: price fluctuations, actual demand, currency fluctuations, geotechnical factors, drilling and production results, gas commercialisation, development progress, operating results, engineering estimates, reserve estimates, loss of market, industry competition, environmental risks, carbon emissions reduction and associated technology risks, physical risks, legislative, fiscal and regulatory developments, economic and financial markets conditions in various countries, approvals, conduct of joint venture participants and contractual counterparties and cost estimates. The forward-looking information in this release is based on management's current expectations and reflects judgements, assumptions, estimates and other information available as at the date of this document and/or the date of Santos' planning processes. Except as required by applicable regulations or by law, Santos does not undertake any obligation to publicly update or review any forward looking statements, whether as a result of new information or future events. Forward looking statements speak only as of the date of this release or the date planning process assumptions were adopted, as relevant. Our strategies and targets will adapt given the dynamic conditions in which we operate; it should not be assumed that any particular strategies, targets or implementation measures are inflexible or frozen in time. No representation or warranty, express or implied, is given as to the accuracy, completeness or correctness, likelihood of achievement or reasonableness of any forward looking information contained in this release. Forward looking statements do not represent guarantees or predictions of future performance, and involve known and unknown risks, uncertainties and other factors, many of which are beyond Santos' control, and which may cause actual results to differ materially from those expressed in the statements contained in this release.

Basis and methodology for resource estimation

The Pavo-1 exploration well executed an evaluation program that included:

- logging-while-drilling (LWD) and wireline measurement of formation properties;
- wireline logging of reservoir pressures and mobilities across the Caley member;
- recovery of oil samples from the wireline evaluation of the Caley member; and
- recovery of side-wall cores across the Caley member.

The contingent resource volume of the Caley member has been estimated using probabilistic methodologies. This methodology incorporates a range of uncertainties relating to each of the key reservoir parameters to predict a range of outcomes. This approach is consistent with the definitions and guidelines in the 2018 Petroleum Resources Management System (PRMS) sponsored by the Society of Petroleum Engineers (SPE).

Santos has completed the following analytical procedures to assess contingent resources:

- interpretation of 3D seismic data;
- analytical probabilistic modelling of the field structure, geology and reservoir parameters;
- probabilistic assessment of subsurface uncertainties and statistical ranges for oil initially in place; and
- probabilistic assessment of recoverable hydrocarbons reflecting conceptual development plan.

The evaluation date of this contingent resource assessment is 20 March 2022.

Prospective resources are estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) related to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

The symbol "~" means approximately.

Qualified petroleum reserves and resources evaluator (QPRRE)

The estimates of contingent and prospective resources in this release are based on and fairly represent information and supporting documentation prepared by, or under the supervision of, Paul Lyford, who is a full-time employee of Santos and a member of the SPE. Mr Lyford meets the requirements of a QPRRE and is qualified in accordance with ASX Listing Rule 5.41.