

## Killanoola Project Initial Oil in Place Report

### Best Estimate Potential Up To 93 mmbbls

#### HIGHLIGHTS

- Independent Report at Killanoola calculates Best Estimate PIIP at 93 mmbbls
- 1228% increase in Best Estimate PIIP
- Planning has commenced for the perforation and testing of both DW1 and SE1
- Perforation to be followed by extended production testing
- Long term production to potentially follow

Australian Oil and Gas explorer and developer, Red Sky Energy (ROG: ASX) (Red Sky or the Company) is pleased to release results from a report by Global Resources & Infrastructure Pty Ltd (GRI) that provides an updated [Independent Competent Person's Report \(CPR\)](#) on the discovered Petroleum Initially In Place (PIIP) in the Killanoola Oil Project, PRL-13, Penola Trough, South Australia (the **Petroleum Asset**), held by Red Sky for an effective date of 31 March 2022.

As previously reported in ASX Release on [22 March 2021](#), petrophysical analysis had identified sixteen (16) metres of Net Pay in the Killanoola SE-1 well. Subsequent to that release the Company advised on [6 May 2021](#) that a new petrophysical analysis had identified an additional thirty seven (37) metres of potential Net Pay in the Killanoola-1 DW-1 well. This was in addition to the existing 5 metres of proven pay. The newly estimated Discovered PIIP values below take into account the additional net pay identified in the wells Killanoola SE-1 and Killanoola-1 DW-1.

**Table 1: Summary of discovered Petroleum Initially In Place (PIIP) of the PRL-13 Killanoola Oil Field**

Killanoola Oil Field	Discovered Petroleum Initially In Place (mmbbls)		
	Low	Best	High
9 April 2021	2.0	7.0	13.8
31 March 2022	57.2	93.0	98.6
% Increase	2760%	1228%	614%

Refer to Table 2 below for restatement of the Company's estimate of contingent resources based on prior ASX announcement dated [9 April 2021](#) and the subsequent GRI update dated 31 March 2022 covered in this release.

**Commenting on the PIIP, Red Sky Managing Director, Andrew Knox, said:**

*“The GRI analysis results have helped us identify potential additional resources and allows us to continue the planning for the eventual comprehensive Killanoola full field development. This is a significant increase from the previously best estimated 7mmbbls PIIP. We are working towards a market for the crude and steps to bring a rig in and perforate the additional zones of interest.”*

Table 1 above summarises the discovered petroleum initially in place of the Killanoola Oil Field as announced [9 April 2021](#) and updated by GRI as at 31 March 2022. This evaluation has been carried out in accordance with the Petroleum Resources Management System (PRMS) approved in 2018 by the Society of Petroleum Engineers, the World Petroleum Council, the American Association of Petroleum Geologists, and the Society of Petroleum Evaluation Engineers. The report has been prepared and supervised by the Competent Person.

As required, to remain compliant with PRMS (2018) when using the deterministic method, GRI has determined Low/Best/High volumes to represent the discovered PIIP. These estimates were developed using various changes to the size of the structural compartments as interpreted.

GRI has calculated that the **Low estimate of 57.2 mmbbls** should be represented by what we have described as the small-mapped closures of Killanoola-1, Killanoola-1DW-1, Killanoola S-1 and Killanoola SE-1.

GRI chose structural compartments that have discovered oil to represent the **Best estimate of 93.0 mmbbls** oil volumes as we are aware from drilling that several structural compartments have discovered oil and we have added structural compartments that have potential to contain oil to represent the **High volumes of 98.6 mmbbls**.

**Table 2: PRL-13 Oil and Gas Contingency Resources, Net ROG Volumes**

Permit	Field	Oil/condensate			Gas		
		1C	2C	3C	1C	2C	3C
		mmbbl	mmbbl	mmbbl	bcf	bcf	bcf
<b>9 April 2021</b>	Killanoola	0.8	2.8	5.5	0.0	0.0	0.0
<b>31 March 2022</b>	Killanoola	17.2	27.9	29.6	0.0	0.0	0.0
<b>% Increase</b>		<b>2050%</b>	<b>896%</b>	<b>438%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>

In [December 2021](#) a successful fluid sampling operation was carried out at Killanoola-1 DW-1. Subsequent laboratory tests have indicated that the Killanoola crude has a maximum pour point of 36 degrees Celsius, which is indicative of a highly waxy crude. To account for the risk of the presence of high paraffinic content in the reservoir on the oil recovery, we have revised the recovery factor downward from 40% to 30%. A summary of the previous ([9 April 2021](#)) and updated (31 March 2022) values is given in Table 2 above.

**PRL-13**

PRL-13 covers a total area of 17.5 km<sup>2</sup> and is located nearby to the Haselgrove and Jacaranda Ridge Gas Fields and approximately 25 km NW of the Katnook Gas Fields and processing facility. First discovered in 1998, the Killanoola oil field was discovered by the Killanoola-1 well at a depth of 850 metres. Red Sky has advised that previous flow tests have recorded rates of up to 300 barrels of oil per day. In 2011, the second well Killanoola Southeast-1 was drilled within the PRL-13 area and discovered oil. In 1998 the Killanoola-1 DW-1 well was drilled, it also discovered oil.

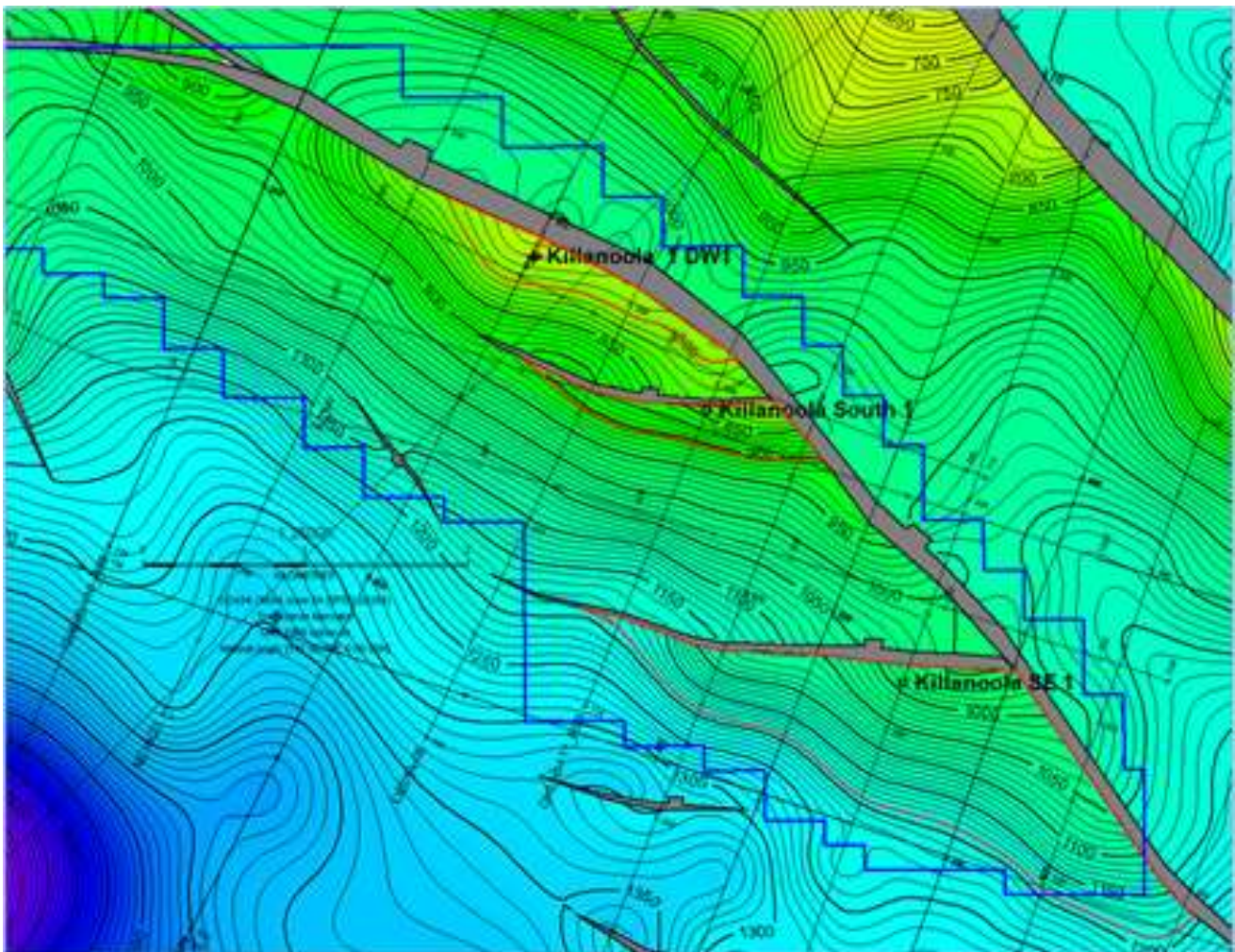


Figure 1: Rotated fault blocks with 2-way anticlinal closure

**Next Steps**

Work on a market for the crude is underway and planning has commenced to contract a rig and for the wireline perforation of the additional zones of interest identified at both DW1 and SE1. This is to be followed by production testing and potentially long-term production.

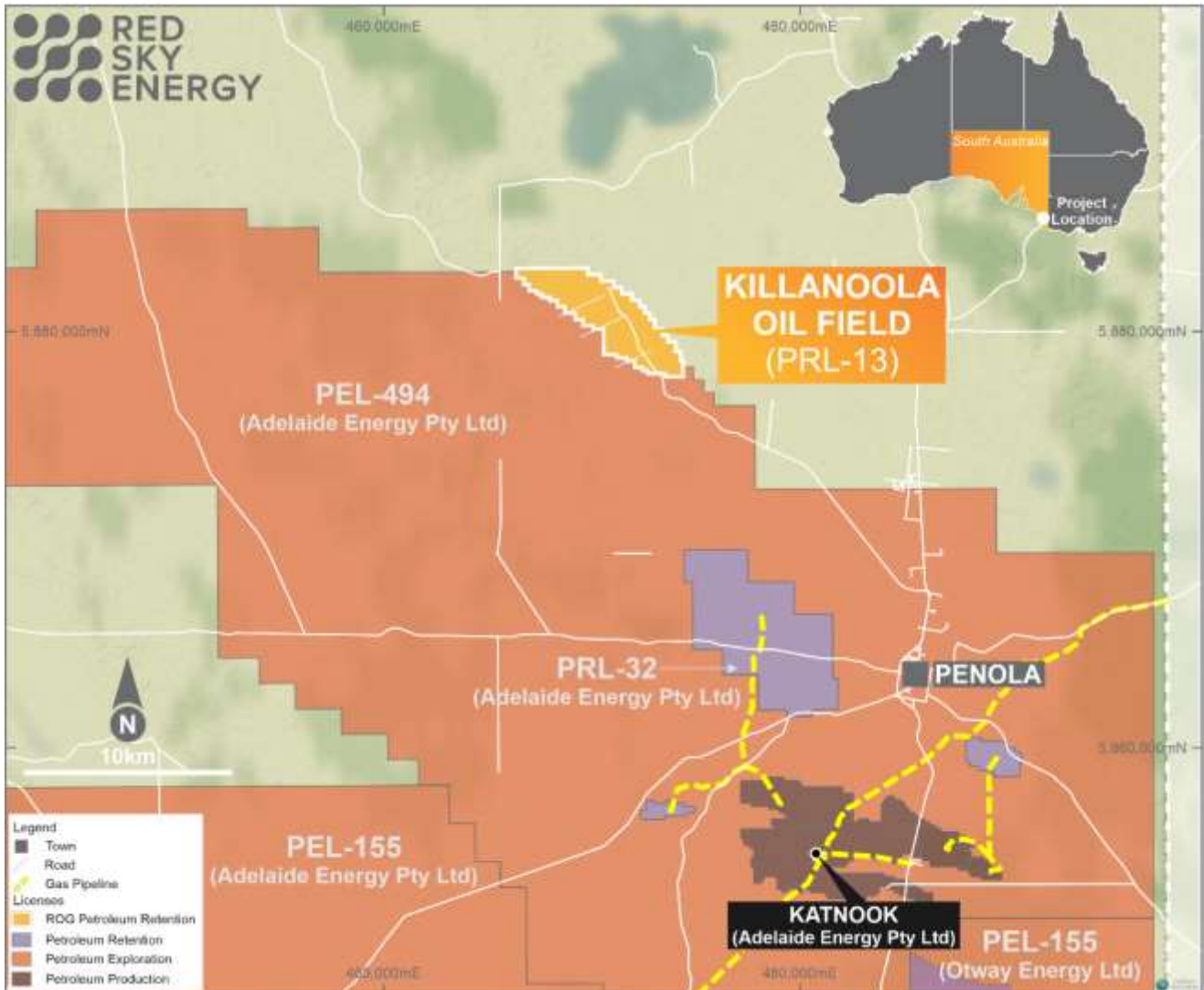


Figure 2: Killanoola Oil Field (PRL-13) location map

**-ENDS-**

Released with the authority of the board.

For further information on the Company and our projects, please visit:

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Various statements in this report constitute statements relating to intentions, future acts and events. Such statements are generally classified as forward-looking statements and involve unknown risks, expectations, uncertainties and other important factors that could cause those future acts, events and circumstances to differ from the way or manner in which they are expressly or impliedly portrayed herein.

Some of the more important of these risks, expectations and uncertainties are pricing and production levels from the properties in which the Company has interests and the extent of the recoverable reserves at those properties. In addition, the Company has a number of exploration permits. Exploration for oil and gas is expensive, speculative and subject to a wide range of risks. Individual investors should consider these matters in light of the personal circumstances (including financial and taxation affairs) and seek professional advice from their accountant, lawyer or other professional advisor as to the suitability for them of an investment in the Company.

## Notes

### Certificate of Qualification for Contingent Resource Estimate

Mr Serge Toulekima is a Petroleum Engineer by training with over 20 years of industry experience. He has working experience in Africa, Europe, South-East Asia and Australia. Mr Toulekima is a lifetime member of the Society of Petroleum Engineers, and he attended Texas A&M University where he earned a Master of Science degree in Petroleum Engineering. His experience in the oil and gas industry includes field development planning, enhanced oil recovery projects, LNG projects, coordination of reserves accounting and reporting with the Shell Group, Santos Limited and Chevron Australia. He joined Red Sky in 2021.

### Contingent Resources

Contingent Resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations, by the application of development project(s) not currently considered to be commercial owing to one or more contingencies. Contingent Resources have an associated chance of development. Contingent Resources may include, for example, projects for which there are currently no viable markets, or where commercial recovery is dependent on technology under development, or where evaluation of the accumulation is insufficient to clearly assess commerciality. Contingent Resources are further categorized in accordance with the range of uncertainty associated with the estimates and should be subclassified based on project maturity and/or economic status (SPE Petroleum Resources Management System).

### Methodology for Calculating discovered Petroleum Initially In Place

At its current stage of development, the Killanoola Oil project, in accordance with definitions established by the PRMS (2018), contains oil in the discovered Petroleum Initially In Place (PIIP) category. No greater levels of certainty have yet been established.

The discovered Petroleum Initially In Place is estimated deterministically by:

1. Extrapolating and analysing the estimated area and thickness of the structure. The boundaries to defining this volume are determined by the interpretation of the physical parameters of the top of the Sawpit Sandstone utilising seismic data,
2. Identifying the oil-water contact (OWC) identified in the wells drilled on the structure,
3. Estimating the net thickness of the oil column
4. Applying a porosity factor to obtain the potential total void space contained in that rock volume
5. Applying a generalised water saturation to the rock void volume.
6. The remaining porosity volume is then assumed to contain oil, which is then converted to barrels for ease of understanding.

Finally, to remain compliant with PRMS (2018) requirements and as a result of using the deterministic method, GRI used the Low/Best/High nomenclature to represent the discovered PIIP. These estimates were developed using various changes to the size of the structural compartments as interpreted.

#### **Formula for Calculating PIIP**

For undersaturated crude, the reservoir contains only connate water and oil with their respective solution gas contents. The initial or original oil in place can be estimated from the volumetric equation:

$$N=7,758Vb\phi\text{SoiBoi}=7,758Ah\phi1-\text{SwiBoi}$$

- The constant 7,758 is the number of barrels in each acre-ft,
- $V_b$  is bulk volume in acre-ft,
- $\phi$  is the porosity ( $\phi V_b$  is pore volume),
- $S_{oi}$  is the initial oil saturation,
- $B_{oi}$  is the initial oil formation volume factor in reservoir barrels per stock tank barrel,
- $A$  is area in  $\text{ft}^2$ ,
- $h$  is reservoir thickness in ft, and
- $S_{wi}$  is the initial water saturation.

In addition to the uncertainty in determining the initial water saturation, the primary difficulty encountered in using the volumetric equation is assigning the appropriate porosity-feet, particularly in thick reservoirs with numerous non-productive intervals. One method is to prepare contour maps of porosity-feet that are then used to obtain areal extent. Another method is to prepare isopach maps of thickness and porosity from which average values of each can be obtained. Since recovery of the initial oil can only occur from permeable zones, a permeability cut-off determined by ResEval was used to obtain the net reservoir thickness. Intervals with permeabilities lower than the cut-off value are assumed to be non-productive. The absolute value of the cut-off will depend on the average or maximum permeability and can depend on the relationship between permeability and water saturation. A correlation between porosity and permeability is often used to determine a porosity cut-off. In cases in which reservoir cores have been analysed, the net pay can be obtained directly from the permeability data. This was not the case at any of the Killanoola wells as no cores were cut. When only logs are available, permeability will not be known; therefore, a porosity cut-off is used to select net pay. These procedures can be acceptable when a definite relationship exists between porosity and permeability.