

22 May 2023

## Palm Valley 'Cash Cow' Sees 3Q Shine, with More to Come

### NEED TO KNOW

- New Palm Valley 12 (PV12) well drives strong quarter
- Sub-salt exploration program a key to growth
- Government policy U-turn to help small gas producers

**PV12 drives strong quarter:** With the reopening of the Northern Gas Pipeline (NGP) and with PV12 having its first full quarter of production, March was one of CTP's best quarters. A 25% sales volume jump and a 20% rise in prices drove a 50% growth in revenues over last quarter. Net debt decreased by \$1.7m. The additional production will be sold into the spot market for the foreseeable future, and with robust prices and demand, cash generation should remain strong.

**Sub-salt huge potential resources; strategic review to finish mid-year:** CTP continues to have a strong exploration pipeline, featuring Amadeus Basin 'sub-salt' plays. An internal assessment of Prospective & Contingent Resources of these plays has shown large potential for helium and hydrogen, plus natural gas. CTP continues its strategic review of the portfolio, to be finalised mid-CY23.

**Government policy turnaround looks set to help CTP:** In December 2022, the government set a price cap of \$12/GJ to apply to new gas contracts from fields already in production and mandated that gas from future exploration be subject to the 'reasonable price' test. In a U-turn on policy the government has now extended the \$12 price cap beyond 2023 but exempted producers of less than 100 PJ/year who supply exclusively to the domestic market (includes CTP). While uncertainty remains (changes are yet to be legislated), CTP will likely benefit from this change in policy for current and future production.

### Investment Thesis

**Cashflow from existing production assets, with some upside:** CTP's existing production assets generate a solid base of cashflow. The recently commissioned PV12 provides increased supply capacity into the East Coast spot gas market, adding higher-priced gas into the portfolio. CTP is looking to add production capacity to the existing assets with recompletions planned for Mereenie mid-year and new wells later in CY2023.

**Exploration still appealing; Range CSG looking better:** Amadeus Basin, with its large sub-salt targets (2 free carried to an aggregate \$10.6m), has gas, helium and hydrogen potential. Range CSG continues its pilot program, showing improving flows of water and gas, and has potential to be a producing gas asset.

**Strategic review: assessing future options; government market U-turn reduces uncertainty:** With gas demand and prices likely to remain strong, CTP still has several options for unlocking undervalued assets. The recent U-turn in government policy on the domestic gas market has reduced uncertainty for CTP.

### Valuation: A\$0.22 (unchanged)

Our risked valuation is unchanged at A\$0.22/share and is significantly above the current share price of A\$0.07. Our gross valuation of the operating assets alone is A\$0.16. We believe that the share price does not adequately reflect the value of the existing assets alone, nor does it encompass the potential of increased production from existing assets, success from Range CSG and any drilling success from the sub-salt plays.

### Risks

Key risks include production issues, continuing government gas policy uncertainty, strategic review, Range Gas performance and exploration disappointment.

### Equities Research Australia

#### Energy

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Central Petroleum (CTP) is the NT's largest onshore gas operator, with a portfolio of gas and oil assets focused on the Amadeus Basin and a significant coal seam gas (CSG) project in Queensland's Surat Basin. Its strategy is to unlock and commercialise the vast energy potential of the Central Australian basins to take advantage of a predicted tight supply/demand balance in the domestic gas market.

<https://centralpetroleum.com.au/>

Valuation	<b>A\$0.22</b> (unchanged)
Current price	<b>A\$0.07</b>
Market cap	<b>A\$46m</b>
Cash (Net Debt)	<b>A\$(15.1m)</b> (31 March 2023)

### Upcoming Catalysts and Newsflow

Period	
Mid-CY23	Strategic review outcome
Ongoing	Range Gas production test
Late CY23	Sub-salt exploration

### Share Price (A\$)



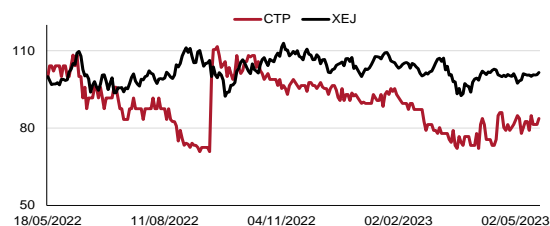
Source: FactSet, MST Access.

# FINANCIAL SUMMARY: CENTRAL PETROLEUM YEAR END 30 JUNE

## Central Petroleum Limited (ASX:CTP)

Share Price	A\$/sh	<b>0.07</b>
52 week high/low	A\$/sh	<b>0.14/0.06</b>
Valuation	A\$/sh	<b>0.22</b>
Market Cap (A\$m)	A\$m	<b>53</b>
Net Cash / (Debt) (A\$m)	A\$m	<b>(15)</b>
Enterprise Value (A\$m)	A\$m	<b>68</b>
Shares on Issue	m	<b>729.26</b>
Options/Performance shares	m	<b>44.97</b>
Potential Diluted Shares on Issue	m	<b>774.24</b>

## CTP Relative to XEJ 12 months



Ratio Analysis	2021A	2022A	2023	2024	2025
EPS (A¢)	0.03	2.88	(0.98)	1.23	3.12
P/E (x)	345.4	3.8	(6.5)	5.2	2.1
EPS Growth (%)	-95%	8398%	n/a	-225%	154%
CFPS (A¢)	3.26	0.49	0.00	2.14	4.35
P/CF (x)	3.6	22.4	1,425.0	3.0	1.5
DPS (A¢)	-	-	-	-	-
Dividend Yield (%)	-	-	-	-	-
EV / EBITDA (x)	6.2	2.8	22.1	3.1	1.2
EV / boe (x)	66.6	98.8	70.1	60.4	35.1
EV / PJe (x)	11.1	16.5	11.7	10.1	5.9
FCFPS					
FCF Yield (%)					

Assumptions (Yr end Jun)	2021A	2022A	2023	2024	2025
Brent Oil Price (US\$/bbl)	52.80	88.76	85.0	79.1	78.0
Exchange Rate (A\$:US\$)	0.747	0.725	0.700	0.700	0.700
Gas Price (A\$/GJ)	5.81	7.07	7.00	7.65	8.32

Production	2021A	2022A	2023	2024	2025
Gas (TJ/d)	27	13	14	15	19
Gas (PJ)	9.8	5.2	4.9	5.6	6.8
LPG (kt)	-	-	-	-	-
Oil / Condensate (mmbbl)	0.08	0.04	0.04	0.03	0.03
<b>Total (mmboe)</b>	<b>1.72</b>	<b>0.90</b>	<b>0.85</b>	<b>0.97</b>	<b>1.17</b>
Gas (mmboe)	1.64	0.86	0.81	0.94	1.14
LPG (mmboe)	-	-	-	-	-
Oil / Condensate (mmboe)	0.08	0.04	0.04	0.03	0.03
<b>Year End Reserves 2P (mmboe)</b>	<b>26.1</b>	<b>12.6</b>	<b>11.8</b>	<b>10.8</b>	<b>9.6</b>

Profit & Loss (A\$m)	2021A	2022A	2023	2024
Oil / Condensate Revenue	5	6	4	4
LPG Revenue	-	-	-	-
Gas Revenue	54	36	34	43
<b>Total Sales</b>	<b>60</b>	<b>42</b>	<b>38</b>	<b>47</b>
Operating Costs	(24)	(18)	(10)	(12)
Government Resource Taxes	(4)	(3)	(3)	(4)
Exploration & Development Expenses	(8)	(21)	(14)	(4)
Other Net Income / Expense	(5)	33	(8)	(8)
<b>EBITDA</b>	<b>18</b>	<b>32</b>	<b>3</b>	<b>19</b>
<b>EBITDAX</b>	<b>26</b>	<b>16</b>	<b>17</b>	<b>23</b>
Depreciation & Amortisation	(13)	(7)	(7)	(8)
EBIT	6	26	(4)	11
Net Interest Expense	(6)	(4)	(3)	(2)
<b>Pretax Profit</b>	<b>0</b>	<b>21</b>	<b>(7)</b>	<b>9</b>
Tax Expense / Benefit	-	-	-	-
<b>Net Attributable Profit</b>	<b>0</b>	<b>21</b>	<b>(7)</b>	<b>9</b>
Reported Profit	0	21	(7)	9

Reserves and Resources As at 30 June 2022	Working Interest	2P Gas (PJ)	1P Liquids (mmbbl)	2P Liquids (mmbbl)	2C Gas (PJ)
Mereenie (OL 4 / OL 5)	25%	39.2	0.4	0.4	45.6
Palm Valley (OL 3)	50%	12.7	-	-	6.8
Dingo (L7)	50%	19.0	-	-	-
Range (ATP 2031)	50%	-	-	-	135.1
<b>Total</b>		<b>71.0</b>	<b>0.4</b>	<b>0.4</b>	<b>187.5</b>

Cash Flow (A\$m)	2021A	2022A	2023	2024
<b>Pretax Profit</b>	<b>0</b>	<b>21</b>	<b>(7)</b>	<b>9</b>
D&A & Other Non-Cash Items	24	(18)	7	7
Tax Paid	-	-	-	-
<b>Cash from Operating Activities</b>	<b>24</b>	<b>4</b>	<b>0</b>	<b>16</b>
Development Capex	(6)	(11)	(4)	(15)
Exploration Capex	(5)	(10)	(14)	(6)
Acquisitions/Other (Net of Sales)	0	28	-	-
Dividends Paid	-	-	-	-
<b>Free Cash Flow</b>	<b>16</b>	<b>21</b>	<b>(4)</b>	<b>1</b>
Cash Provided by Financing	(5)	(37)	(3)	(3)
<b>Net Change in Cash</b>	<b>11</b>	<b>(16)</b>	<b>(7)</b>	<b>(3)</b>

	A\$m	Risking	A\$m	A\$ps
Mereenie - OL4 & OL5 (25%)	61	100%	61	0.08
Palm Valley - OL3 (50%)	32	100%	32	0.04
Dingo - L7 & PL30 (50%)	32	100%	32	0.04
Project Range - ATP 2031 (50%)	102	20%	20	0.03
<b>Total Operations</b>	<b>226</b>		<b>145</b>	<b>0.20</b>
Net Cash / (Debt)	(12)	100%	(12)	(0.02)
Admin / Corporate / Other	(37)	100%	(37)	(0.05)
Exploration (risk-adjusted)	40	50%	20	0.03
Mereenie & Palm Valley 2C gas (risked)	40	50%	20	0.03
Dingo Deep & Palm Valley Deep (Prospective, Best)	47	45%	21	0.03
<b>TOTAL VALUATION</b>	<b>303</b>		<b>156</b>	<b>0.22</b>

Balance Sheet (A\$m)	2021A	2022A	2023	2024
Cash & short term deposits	37	22	15	12
Receivables	7	27	5	6
Inventories	2	4	6	8
Property, Plant and Equipment	54	54	52	61
Capitalised exploration	8	8	4	3
Intangibles and Goodwill	2	2	2	2
Other assets	64	5	5	5
<b>Total assets</b>	<b>174</b>	<b>122</b>	<b>88</b>	<b>97</b>
Creditors	10	14	7	9
Borrowings	67	31	23	20
Other liabilities	93	51	38	40
<b>Total liabilities</b>	<b>170</b>	<b>96</b>	<b>69</b>	<b>69</b>
Shareholder equity	4	27	19	28
<b>Shareholder Equity + Total Liabilities</b>	<b>174</b>	<b>122</b>	<b>88</b>	<b>97</b>

Source: CTP MST Estimates

# March Quarter: PV12 the Star – All Metrics Moving in the Right Direction

The March quarter results represented an unequivocally good quarter and a recovery from the poor December quarter, which was affected by the temporary Northern Gas Pipeline (NGP) closure. The star of the quarter was the PV12 well, which in its first full quarter of production contributed to higher volumes, prices and cash generation, and generated over A\$3m in revenue for CTP during the period. We expect that, with continuing strong demand from the East Coast gas market (ECGM), PV12 will drive another strong quarter in June with risk to the upside for our forecasts.

## A strong quarter: higher revenue driven by bigger volumes and prices

### Volumes: up 25% qoq – NGP back online, strong PV12 production

PV12 was commissioned in late November, and the March quarter was the first full quarter of production for the new well. December-quarter sales were significantly affected by the outage of the NGP; however, the strong production from PV12 delivered the highest level of production for CTP in the last 5 quarters.

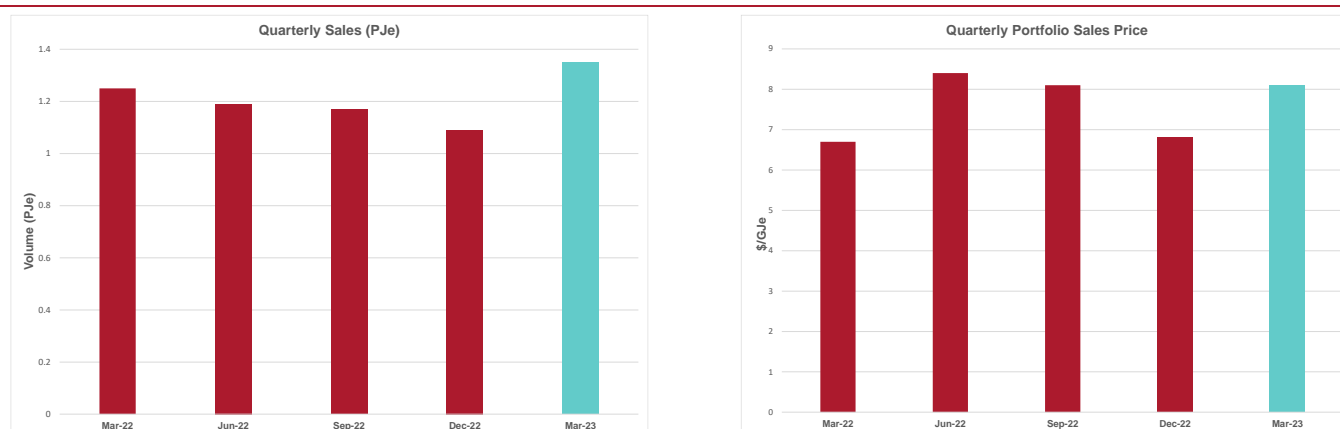
### Sales price rebounds as PV12 sells into strong East Coast market: up 20% qoq

The reopening of the NGP drove a significant increase in average price received with an increase of 20% qoq, realising A\$8.15/GJe. The NGP outage kept CTP out of the higher-priced ECGM in the December quarter. However, with the pipeline restored, and PV12 at full rates – and selling into the ECGM – pricing rebounded strongly. Of the past 5 quarters, only the June 2022 quarter saw higher prices, with CTP selling into an ECGM which was at prices exceeding A\$30/GJe.

### Higher volume + higher price = higher revenue: up 50% qoq

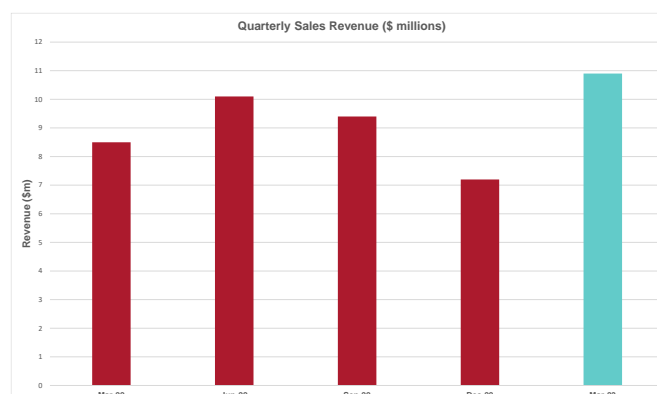
The combination of the restored NGP access and the PV12 well were the drivers of significantly higher revenues – the best of the past 5 quarters and up 50% from the December quarter, due to a combination of higher volumes and higher prices.

**Figure 1: Quarterly sales, last 5 quarters: Volumes best in this quarter (left: PJe); portfolio sales price also very strong (right: \$/GJe)**



Source: CTP.

**Figure 2: Quarterly revenues: this quarter has seen the best revenues of the past 5 (\$m)**



Source: CTP.

## Funding: cash position increased, new funding in place for future development

**Net debt position:** Net debt was \$15.1m at 31 March 2023, compared to \$16.8m at 31 December 2022. Strong operational cash flow of \$3.8m for the quarter, driven by PV12, increased the cash balance by \$0.5m and also allowed a reduction in the debt balance of \$1.7m. We expect the next quarter to show similar or better cash flow generation.

**Free carry position:** Under the carry arrangements relating to the partial asset sale, the new joint venture partners at Mereenie, Palm Valley and Dingo agreed to pay \$40m of CTP's share of certain future exploration and development costs in those fields. At the end of March 2023, \$2.1m remained available for future use, which will be invested in Mereenie well recompletions and the flare gas recovery project.

In addition there is a maximum of A\$10.6m free carry available for CTP's share of the Mahler and Jacko Bore Sub Salt wells, to commence drilling in late 2023.

**New debt facility – funding increased production and exploration:** In November 2022, CTP entered into an agreement with Macquarie Bank for the expansion of its existing debt facility for up to \$12m to fund increased production and exploration across CTP's Amadeus Basin gas projects. The new facility consists of two separate tranches of \$6m each.

CTP satisfied all conditions precedent for the first tranche in December 2022 and has drawn down \$1m, with A\$11m still available across both tranches of the facility.

**Funding of Dukas –** At this stage CTP has not farmed down any of its position in Dukas and will have to fund its share of the well. Although there is no indication of the cost of the well, we expect it to be relatively expensive.

## FY23 forecasts unchanged – PV12 provides potential upside

Our forecasts are unchanged. We do however see the risk to the upside for FY23 given the performance of PV12. We see FY24 returning to profitability as Mereenie production increases as a result of the recompletion and drilling program in CY2023.

Figure 3: 3-year forecasts – risk to FY23 to the upside

Net Profit	2023F	2024F	2025F
<b>Production</b>			
Gas (TJ/d)	14	15	18.8
Gas (PJ)	4.9	5.6	6.8
Oil / Condensate (mmbbl)	0.04	0.03	0.03
<b>Total (mmboe)</b>	<b>0.85</b>	<b>0.97</b>	<b>1.17</b>
Oil / Condensate Revenue	4.2	3.7	3.5
LPG Revenue	–	–	–
Gas Revenue	33.6	43.0	57.1
<b>Total Sales</b>	<b>37.7</b>	<b>46.7</b>	<b>60.6</b>
Operating Costs	(10.3)	(12.4)	(11.7)
Government Resource Taxes	(2.8)	(3.5)	(4.5)
Exploration & Development Expenses	(14.3)	(4.3)	(2.7)
Other Net Income / Expense	(7.6)	(7.7)	(7.7)
<b>EBITDA</b>	<b>2.7</b>	<b>18.8</b>	<b>34.1</b>
<b>EBITDAX</b>	<b>16.6</b>	<b>23.2</b>	<b>36.8</b>
Depreciation & Amortisation	(6.8)	(8.1)	(9.8)
EBIT	(4.1)	10.8	24.2
Net Interest Expense	(3.0)	(1.8)	(1.6)
<b>Pretax Profit</b>	<b>(7.1)</b>	<b>8.9</b>	<b>22.6</b>
Tax Expense / Benefit	–	–	–
<b>Net Attributable Profit</b>	<b>(7.1)</b>	<b>8.9</b>	<b>22.6</b>

Source: MST estimates.

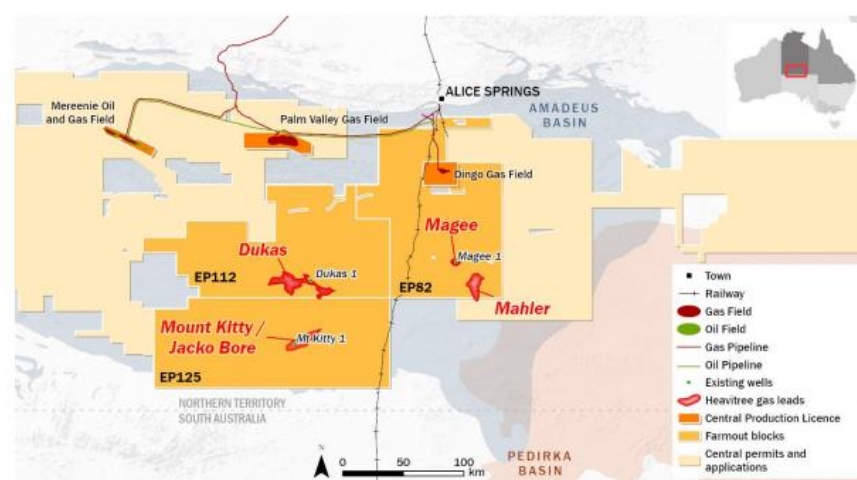
# Amadeus Sub-Salt – Huge Resource Potential; Exploration and Appraisal Remains Attractive

## CTP's share of sub-salt gas resources independently assessed

CTP's sub-salt plays of Dukas, Mahler and Jacko Bore have been internally assessed. The company's share of gas resources across the three prospects are estimated as follows (see Appendix 1 for a detailed explanation of Reserves and Resources classifications):

- **helium: 44.8 billion cubic feet (bcf)**, including a Prospective Resource of 40.5 bcf at Dukas and Mahler (best estimate) and a 2C Contingent Resource of 4.3 bcf at Jacko Bore (Mt Kitty)
- **naturally occurring hydrogen: 56.7 bcf**, including a Prospective Resource of 51.4 bcf at Dukas and Mahler (best estimate) and a 2C Contingent Resource of 5.3 bcf at Jacko Bore (Mt Kitty)
- **natural gas: 272 bcf**, including a Prospective Resource of 262.6 bcf at Dukas and Mahler (best estimate) and a 2C Contingent Resource of 9.4 bcf at Jacko Bore (Mt Kitty).

**Figure 4: Location of CTP's sub-salt plays – Dukas, Mahler and Jacko Bore**



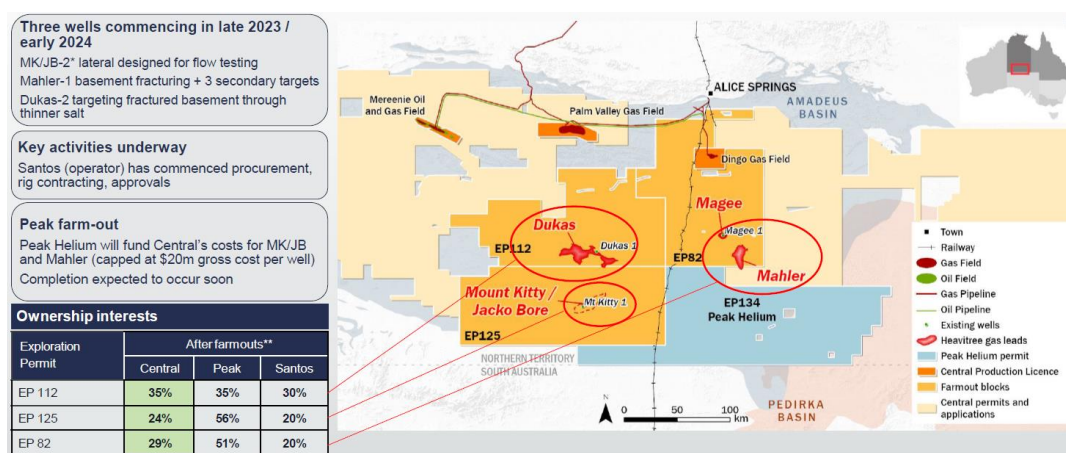
Source: CTP.

## Santos progressing towards 3-well program to start late 2023

Three sub-salt exploration wells are planned to be drilled, starting late 2023, targeting hydrocarbons, helium and naturally occurring hydrogen. Santos, as operator, is ramping up key activities for the 3-well program, including rig contracting, ordering long-lead items and environmental and land access approvals.

CTP is to be free carried (i.e., funded) by Peak for 2 of the new sub-salt exploration wells (capped at \$20m gross cost per well): at the **Jacko Bore/Mt Kitty** prospect (24% CTP post farmout) and at the **Mahler** prospect (29% CTP post farmout). A re-drill of the **Dukas** sub-salt prospect (35% CTP) is expected after these wells, in CY2024.

**Figure 5: Southern Amadeus sub-salt exploration program for next 12 months**



Source: CTP.

### Jacko Bore 2 (EP125) (CTP 24%; Peak Helium 56%; Santos 20%)

The Jacko Bore 2 exploration well will target helium, naturally-occurring hydrogen and natural gas in the fractured basement by re-entering the existing Mt Kitty-1 (Jacko Bore-1) well and drilling a deviated/horizontal sidetrack to test up to 500m of the fractured basement reservoir at a depth of approximately 2,000m.

The vertical Mt Kitty-1 exploration well flowed at up to 530,000 scfd, including 11.5% hydrogen and 9% helium. The helium results is amongst the highest in the world.

Figure 6: Jacko Bore Contingent Resource – net to CTP

Jacko Bore Contingent Resource	1C bcf	2C bcf	3C bcf
Helium	1	4.3	16.6
Hydrogen	1.2	5.3	20.6
Hydrocarbons	2.2	9.4	35

Source: CTP

### Mahler (EP82) (CTP 29%; Peak Helium 51%; Santos 20%)

The Mahler exploration well will target helium, naturally-occurring hydrogen and natural gas in the fractured basement and Heavitree formation at depths up to 2,000m. The well is planned to be drilled approximately 20km to the southeast of the Magee-1 exploration well which flowed gas, including 6.2% helium.

Figure 7: Mahler Prospective Resource – net to CTP

Mahler Prospective Resource	Low Estimate bcf	Best Estimate bcf	Mean bcf	High Estimate bcf
Helium	0.1	0.6	1.3	3.2
Hydrogen	0.1	0.06	1.3	3.2
Hydrocarbons	0.2	209	6.4	15.7

Source: CTP

### Dukas-2 (EP112) (CTP 35%; Peak Helium 35%; Santos 30%)

The Dukas-2 well is planned to follow the Dukas-1 exploration well which was drilled in 2019 and suspended after encountering hydrocarbon-bearing gas from an overpressured zone close to the primary target at a depth of 3,704m. Traces of helium and hydrogen were detected in mud gases. The Dukas-2 well will target the same tight sandstone in the Heavitree formation below the salt seal with a higher-capacity rig in early 2024.

Figure 8: Dukas Prospective Resource – net to CTP

Dukas Prospective Resource	Low Estimate bcf	Best Estimate bcf	Mean bcf	High Estimate bcf
Helium	6	39.9	69.7	165.2
Hydrogen	7.4	50.8	88.6	211.4
Hydrocarbons	45.2	259.7	428.8	986.7

Source: CTP

## Amadeus production assets: Mereenie and Palm Valley JVs

CTP is planning to increase production from **Mereenie** mid-2023, with a development program comprising recompletion of five existing wells (commenced May 2023) and drilling of two new development wells (awaiting JV approval).

## Range Gas Project: recent performance encouraging

Production testing of 3 pilot wells has continued, with the intention of providing key information regarding reservoir productivity, gas desorption, zonal contribution and the initial production profiles of gas and water ramp-up. Range 6, 9 and 10 have been on pump for 1 year.

Since November 2022, water rates have stepped up and gas rates have more than doubled to ~100GJ/d. The results are very encouraging, with a number of observations to be made from the recent performance:

- This gradual gas ramp up is typical of the early days of successful CSG plays on the fairway edges. For example:
  - GLNG Arcadia came online at 60GJ/d per well; after 6 years, field production grew to 91TJ (91,000GJ)/d.
  - Senex Roma North came online at 70 GJ/d per well; after 3 years, field production grew to 20TJ (20,000GJ)/d.
- Gas rates are becoming large enough to consider utilisation options (such as gas-fired power generation for well pumping) and/or revenue options.

**Figure 9: Range pilot testing – total gas produced: steady volume increases (GJ/d)**



Source: CTP.

# Strategic Review Due for Completion Shortly: Looking to the Future

Following last year's Palm Valley 'deeps' exploration failures and cost overruns, a strategic review of the company's portfolio commenced in September 2022, aiming 'to assess options for the Company's extensive portfolio of exploration, appraisal and production assets and examine further opportunities in the context of the current market and capital landscape'.

The strategic review began in the context of historically high global and East Coast spot gas prices as well as supply constraints, driven predominantly by Russia's invasion of Ukraine and disruptions to domestic coal-fired power generation capacity. Since this time, the market has had to reset given the government's market intervention – and the resulting investment uncertainty – and then a subsequent change to that policy, which looks favourable to the smaller producers such as CTP.

CTP has indicated that the strategic review will be complete mid-CY2023.

## Parameters of the strategic review

CTP has stated the strategic review will involve an extensive review of the portfolio and will include assessment of:

- the structure of the portfolio and potential sales of assets
- opportunities given the current gas markets
- optimisation of hydrogen and helium prospects
- expansion into other basins
- the Range Gas Project.

## Potential outcomes of the strategic review

### What are the options for changes to CTP's portfolio?

The CTP portfolio has a range of production, appraisal and exploration assets predominantly in the Amadeus Basin (Northern Territory) and the Surat Basin (Queensland). CTP has options to restructure the portfolio in a number of ways. The options are outlined below.

**Outright sale of the company:** CTP may determine that the most rational action is to put the company as it exists up for sale.

**Outright sale of certain assets:** The strong global and local gas markets of 2022 have led to a number of transactions in the listed and trade markets. CTP may seek the opportunity to sell parts of the portfolio at valuations that are higher than the market is currently attributing to them.

**Other corporate activity,** which could include:

- spin-off of certain assets into a new vehicle
- corporate merger with another industry participant
- introduction of new joint ventures through sale or farm-out of certain assets.

**Relinquishing assets:** After analysing past exploration results and taking into consideration the potential future costs and risks of exploration, appraisal and development, increasing regulatory hurdles and costs and recent government intervention in gas markets, CTP intends to surrender its interests in the Georgina Basin (Qld titles ATP 909, ATP 911 and ATP 912) and the Ooraminna Retention Licences (NT titles RL 3 and RL 4). Further review of assets may lead to further relinquishments.



## What other strategic opportunities may arise from the review?

**Opportunities in the current gas market:** The strong gas markets of the last year have led to opportunities for CTP to deliver into the spot market and increase the average price received for its gas.

The company has signed new gas contracts including Shell and South 32.

Given the government's recent U-turn on its intervention in the gas markets, there may well be further opportunities to enhance the average gas price received through spot sales and as old contracts roll over or new gas is discovered.

**Optimisation of hydrogen and helium prospects:** CTP has exciting opportunities with potential hydrogen and helium assets. Hydrogen and helium represent critical elements in the development of clean energy and technology.

The Amadeus Basin is well recognised as a potential source for 'gold' hydrogen (naturally occurring and trapped within the earth) in sub-salt prospects. Sub-salt prospects are very complex, high risk, and have high exploration, appraisal and development costs. Hydrogen can be commercial on its own, or add significant value to a hydrocarbon play.

**Expansion into other basins:** There may be other assets in the relevant basins that would fit with the current portfolio or opportunities in other basins where CTP see its skills as being appropriate.

**The Range Gas Project:** As discussed above, production testing of 3 pilot wells has continued, with the production testing intended to provide key information regarding reservoir productivity, gas desorption, zonal contribution and the initial production profiles of gas and water ramp-up. Water and gas flow rates from the pilot wells were not as predicted after the initial exploration wells, and more data, as well as capital investment, is required to assess the Range resource.

CTP is a 50% JV partner with Incitec Pivot (fertiliser producer), which over the long term may not be a natural owner of the asset.

Part of the strategic review will be to determine if Range is an asset that CTP should continue to own (or own more of) or look to sell.

# Government Policy: U-Turn Favourable for CTP

## Recap: upstream gas market intervention of December 2022 – what rules were set by the government?

On 23 December 2022, the Federal Government intervened in the upstream gas market with a set of rules. As a refresher, these rules were as follows:

1. A price cap of \$12/GJ to apply to new wholesale gas contracts from fields which are already in production with the price prevailing at specific gas-gathering hubs: Moomba in South Australia and Wallumbilla in Queensland. Gas contracted before 2023 is exempt. Gas from future exploration is not affected but instead will be subject to the 'reasonable price' test (which remains undefined).
2. 'Gaming' the price via charges for other services, or other activities deemed non-compliant, could result in severe penalties of A\$50m, or 3X the 'opportunity gained' as assessed by the ACCC, or 30% of the participant's East Coast annual gas revenue if the breach cannot be quantified.
3. The ACCC will determine a 'reasonable' price for production resulting from future exploration. Details as to how this price is to be determined are to be advised, but according to the ACCC it is to be set on a case-by-case basis.
4. Exceptions and exemptions may be granted to producers or consumers, at the ACCC's determination.
5. Short-term trading hubs, where spot prices may be higher or lower, are to continue as a mechanism to address short-term system imbalances.

## Update: government review modifies rules, potentially improving the situation for smaller domestic gas producers – including CTP

Since the Federal Government's 'intervention' into the gas market outlined above, the broader oil and gas industry has led a push with key regulatory agencies to resolve a myriad of uncertainties as to the rules of engagement for domestic gas market participants.

As a result of this engagement between industry and regulators, a consultation paper has been released by the ACCC, which is newly empowered to set and control domestic gas prices. The paper outlines exemptions to price caps and 'reasonable price' tests for companies which are both:

- developing to supply the domestic markets
- small producers delivering <100 PJ pa.

**On both tests, CTP should qualify for an exemption to the proposed "code of conduct".**

**The practical outcome is that CTP will be able to sell its gas to east-coast gas customers, on mutually agreeable terms, and is particularly relevant for increased gas production from the PV12 well which is available for sale into the spot ECGM.**

The caveat is that governing rules are not yet legislated, and there is over-arching industry nervousness as to the behaviour of political parties going forward.

## Implications for CTP of these expected rule changes

### Business implications: PV12 prices uncapped, potential for Mereenie

Practically all of CTP's gas production has been contracted before the date of 'intervention'. However the PV12 well and the reopened NGP has enabled CTP to access high prices for 'spot' gas, which drove higher prices and revenue in the March quarter.

In the December 2022 quarter, CTP's average price achieved across all its volume was A\$6.78/GJe; the PV12 contribution drove the average price to A\$8.15/GJe in the March 2023 quarter.

With the proposed change of rules, any spot gas CTP generates will effectively have an uncapped price. This includes PV12, as well as further production enhancements from Mereenie later in CY2023.

### Strategic review implications: more time needed

CTP's strategic review began in September 2022 and has taken longer than the market had anticipated and the company originally guided.

Strategic review timings are difficult to estimate, given their long-term implications and, in this case, CTP's broad range of assets (covering established production assets, exploration permits, sub-salt exploration targets and a coal seam gas project), which provides additional complexity.

The changes in government policy added some uncertainty to the gas market, with the result adding further time to the strategic review process. The strategic review is now set to be completed mid-year.

# Valuation: Current Operations Show Value

## Base-case valuation of A\$0.22 (unchanged)

### Core production assets contribute A\$0.16

Our valuation is A\$0.22 (unchanged), using a risked sum-of-the-parts valuation. The core production assets make up A\$0.16 (A\$0.09 after debt and corporate costs) of this valuation, suggesting that the market is placing a significant discount on assets that are relatively low risk.

### Assets undervalued by the market, in our view

In our view, the market is underpaying for production assets and investors effectively get all potential upside from exploration, Range and the strategic review for free.

The Amadeus Basin assets provide underlying production, earnings and cash flow which we believe is fundamentally undervalued by the market.

The Range CSG Project has a significant Contingent Resource in a basin that has been proven to be able to be brought to production rapidly. There is still considerable risk with this project, which may require additional investment into relocated wells or new drilling and completion techniques to unlock a step change in water rates and gas flow and see the value in this asset crystallised.

**Figure 10: Base-case valuation summary – fully diluted (A\$ per share)**

	A\$m	Risking	A\$m	A\$ps
Mereenie - OL4 & OL5 (25%)	61	100%	61	0.08
Palm Valley - OL3 (50%)	32	100%	32	0.04
Dingo - L7 & PL30 (50%)	32	100%	32	0.04
Project Range - ATP 2031 (50%)	102	20%	20	0.03
<b>Total Operations</b>	<b>226</b>		<b>145</b>	<b>0.20</b>
Net Cash / (Debt)	(12)	100%	(12)	(0.02)
Admin / Corporate / Other	(37)	100%	(37)	(0.05)
Exploration (risk-adjusted)	40	50%	20	0.03
Mereenie & Palm Valley 2C gas (risked)	40	50%	20	0.03
Dingo Deep & Palm Valley Deep (Prospective, Best)	47	45%	21	0.03
<b>TOTAL VALUATION</b>	<b>303</b>		<b>156</b>	<b>0.22</b>

Source: MST estimates.

## Even more upside potential to our valuation, driven by multiple sources

We see further upside potential to our base-case valuation from multiple sources, which include:

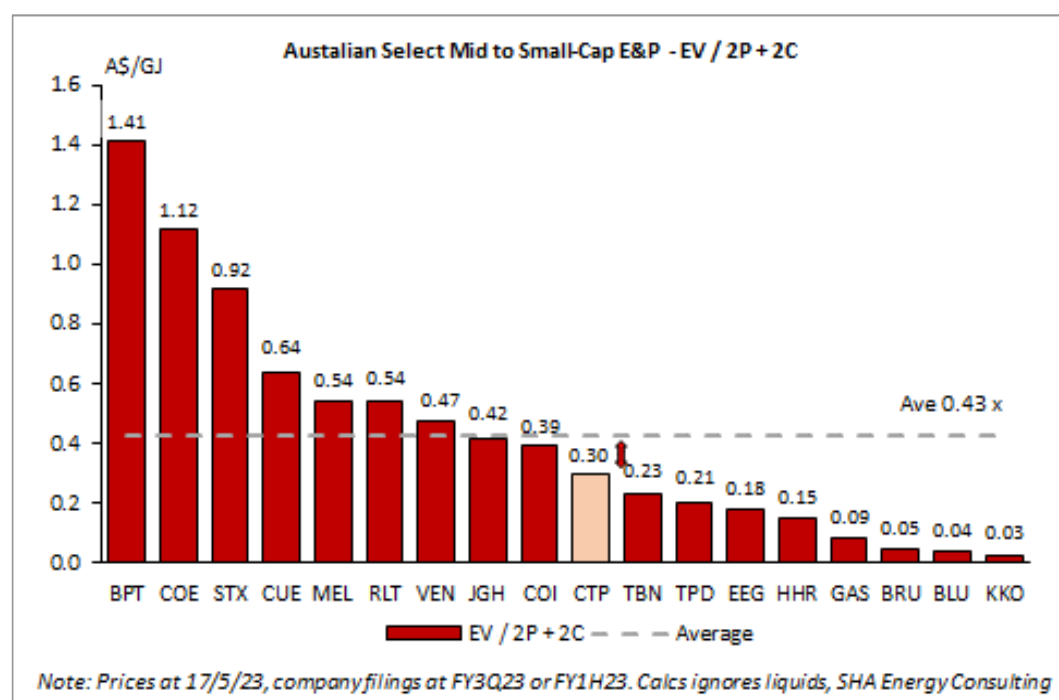
- exploration program – despite the disappointing results from the PV exploration deeps program last year, exploration and appraisal remains a strong source of potential value within CTP via the potential to increase Reserves and thus increase production and/or life of assets. Particular focus is on the sub-salt exploration program
- confirmation of government policy relating to the pricing of gas
- Range CSG Project development – the improved recent performance of Range increases the potential for rapid development. Success at Range would add significant cash flow
- results of the strategic review
- higher level of sales into the spot market
- corporate activity in the energy sector.

## Valuation cross check: Enterprise Value to Resources suggests that CTP is undervalued

An additional check on our valuation is to observe how the market values the Reserves and Resources of CTP and its ASX-listed peers (see Figure 11), using EV/2P+2C. This yields a lower alternative valuation than our NPV-based method, but it still reflects upside to the current share price, particularly if the 2P reserves base can be expanded.

This valuation metric shows the relative value the market attributes to the company's Reserve and Resource base. CTP is valued significantly below its peer average, with CTP's EV/2P+2C of 0.30 comparing to the average of 0.43. The peer average would see CTP valued at **A\$0.09 vs. the current share price of A\$0.072 and our valuation of A\$0.22**.

Figure 11: Select Australian-listed energy stocks – EV/Resources



Source: SHA Energy Consulting

## Key risks

The disappointing exploration results at PV have shown the risk in exploration, and this remains a key risk to potential valuation upside. Other risks include:

- further outages to the Northern Gas Pipeline (NGP)
- government regulation uncertainty
- the gas price, a key sensitivity for CTP's cash flow and valuation
- operational issues at existing assets, which would reflect poorly on management and decrease cash flow and valuation
- the Range Gas Project in the Surat Basin has potential for development. Flow rates are key to the development of this asset. Further investment is at risk to gain additional geological and reservoir information
- difficulty accessing licence areas to acquire seismic and drill exploration and development wells, which may lead to delays. Despite having exploration tenure granted by the State / Territory, CTP must negotiate access with various stakeholders and deal with rising regulatory compliance requirements. In recent years, this has impeded activity in the field, and contributed to rising costs
- social licence: CTP is a fossil fuel producer, an industry which has been targeted in recent years by climate activists. A short-term consequence of this is its impact on investor sentiment, which flows through to CTP's ability to attract investors and capital providers.

# Appendix 1: Resources and Reserves

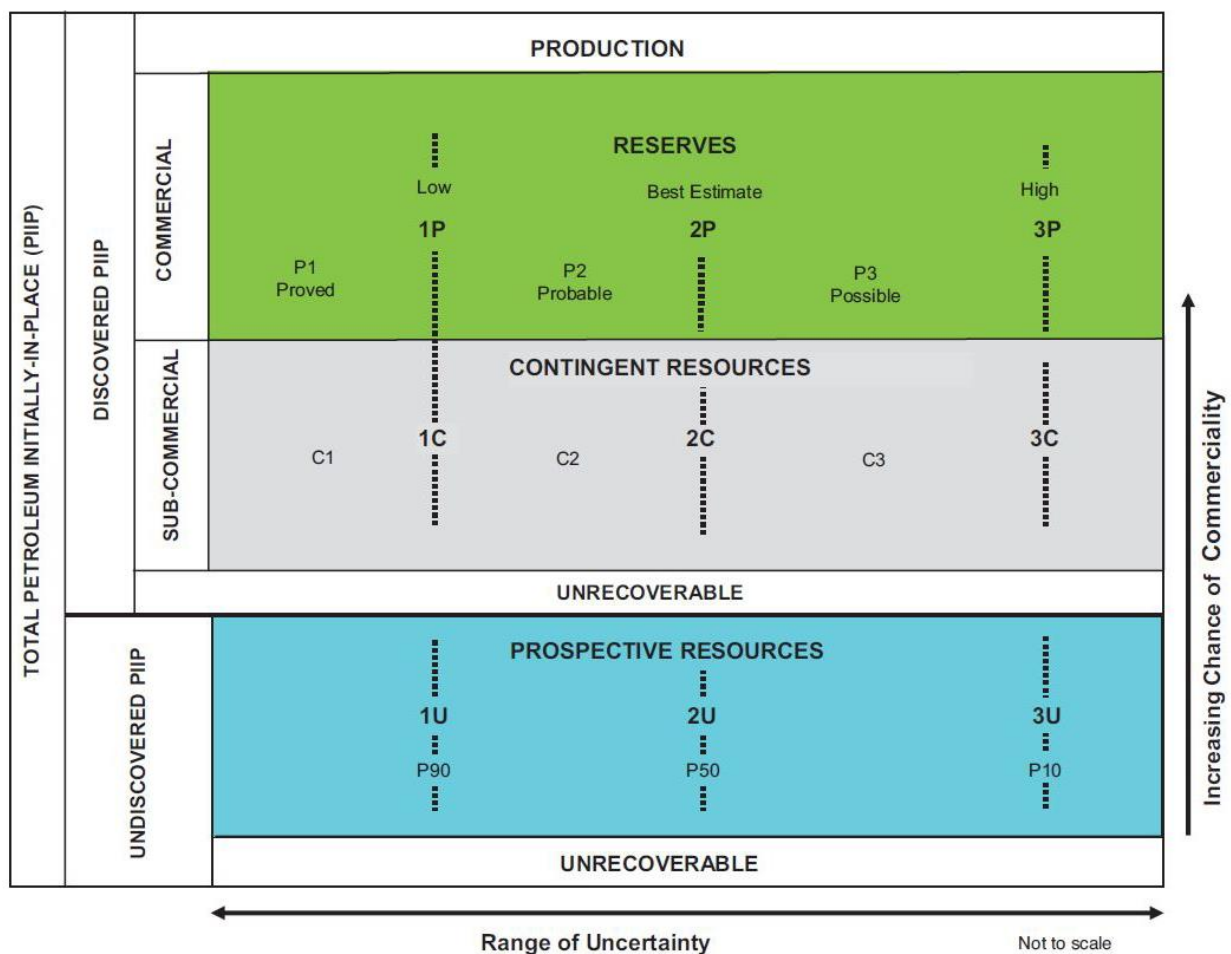
Figure 12 shows the three categories into which estimated quantities of potentially recoverable petroleum can be placed: Prospective Resources, Contingent Resources and Reserves. Within each category, three estimates are designated to describe the range, with greater certainty at the low end and less certainty at the high end.

**Prospective Resources** are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future projects.

**Contingent Resources** are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations but where the applied project(s) are not yet considered mature enough for commercial development due to one or more contingencies.

**Reserves** are those quantities of petroleum anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions. The categories within Reserves, in decreasing certainty, are Proved, Probable and Possible.

Figure 12: Resources and Reserves



Source: CTP.

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