



Empire Energy Group Limited

First EP187 well cleared for vertical drilling

Empire Energy Group Limited (ASX:EEG) is a junior oil and gas producer and explorer with onshore oil & gas shale assets. EEG holds the largest acreage position (>14.5m acres) in the highly prospective, potentially global-scale NT McArthur-Beetaloo basins. The Beetaloo alone is forecast to contain shale dry gas volumes of over 100 Tcf, with liquids upside. EEG has a number of event drivers in the coming 12-18 months, aiming to transform the company into a strategically-important, long-life Australian onshore energy generator. Ending 2019 with US\$9.9m gross cash, EEG is fully-funded for the 2020 drill program planned on its EP187 tenement in SE Beetaloo. Its Carpentaria-1 vertical appraisal well received NT clearance early-March. The well, set to begin mid-year, aims to confirm recent better than expected seismic mapping results of the Kyalla and Velkerri shales, with the wells prognosed total depth now 2,900m. The Basin is fast developing as a gas-rich (and potentially liquids-rich) option to boost east coast Australia's future energy self-sufficiency, as well as expansion gas supplying Darwin's LNG export terminals, amid strong policy support from both Northern Territory (NT) and Federal governments. Crystallising EEG's longer-term potential rests on successful drilling, securing strategic funding and infrastructure support to commercialise the acreage.

Business model

Empire Energy Group (EEG) is a junior oil & gas producer/exploration company, focusing on maturing its portfolio of onshore, long-life oil and gas fields. The company holds substantial exploration acreage in Australia's Northern Territory McArthur-Beetaloo basins. Although EEG's NT assets are at early exploration stage, given the high prospectivity of the region, success from the company's 2Q 2020 drilling programme could see cashflows generated within 24-36 months, assuming links and upgrades to existing pipeline infrastructure are undertaken in time.

NT EMP approvals point to good support & governance

On 5 March 2020, Empire Energy Group (EEG) received NT Government environment management plan (EMP) clearance to drill its first vertical well, Carpentaria-1, within the hydrocarbon-prospective EP187 tenement, situated on the SE flank of the Beetaloo sub-Basin. In our view, EEG's EMP approvals should deliver investors significant confidence that EEG has gained local government and landholder backing, while adhering to the strict new governance protocols implemented since the NT's unconventional drilling enquiry in 2018; the first junior to do so. EEG expects to release its final investment decision and drill start date in coming weeks, once rig operator negotiations are concluded. We expect total program costs of sub-A\$7m, leaving ~A\$6.0m to complete the planned follow-on vertical frac program in 4Q, assuming positive appraisal of the vertical well results. Strongly positive results from these 2020 drilling programs would allow EEG to evolve its current prospective resource (P50) of 1.85bln Boe (11 Tcfe) into a contingent resource (2C). This would place EEG into a stronger negotiating position with future potential fund partners.

Valuation

In our 23 December scoping report, Forging New Frontiers, we assigned a base case valuation of \$160m to EEG (\$0.61/share) which uses a long-run average oil price of US\$70 WTI. If we apply the current WTI spot price of US\$31.73/bbl and exchange rate of US\$0.62, the valuation would be \$0.29/share. In our view, the market is applying a commodity price which is unsustainable longer term. EEG has a number of event drivers within its portfolio over the coming 6-12 months which hold potential to generate a sizeable uplift in NAV.

Historical earnings and RaaS Advisory estimates									
Year end	Revenue (US\$m)	Gross Profit (US\$m)	NPAT reported (US\$m)	OCFPS (AUD cps)	EPS Adj (AUD cps)	Price/Book (x)			
12/18a	14.3	5.0	(15.9)	(0.15)	(1.41)	15.7			
12/19a	6.7	1.7	(7.4)	(9.87)	(6.13)	2.0			
12/20e	4.4	1.2	(3.0)	0.64	(1.47)	4.2			
12/21e	4.5	1.2	(3.0)	2.06	(1.40)	6.7			
Source: Co	mnany data_R	aaS Advisory	Estimates for E	Y20e and F\	/21e				

Energy exploration & production

16 March 2020



Share performance (12 months)



Upside Case

- Drilling success in McArthur-Beetaloo Basin generates significant commercial outcomes for EEG's EP187
- Seismic program proves the eastern extension of the Beetaloo Basin into EP187
- Drilling success generates high-value LT strategic partner & funding options

Downside Case

- McArthur-Beetaloo Basin EP 187 2Q 2020 drilling is unsuccessful, negatively impacting value of remaining NT permits (EP180-188)
- Continuing financing through equity issues highly dilutive to future capital growth
- Fracking success in NT/Qld pushes onshore energy prices to sub-economic levels.

Board of Directors

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Carpentaria-1 vertical well approvals in place

On 5 March 2020, Empire Energy received clearance from the Northern Territory Minister for Environment and Natural Resources to begin drilling its first well on its Beetaloo EP187 tenement, to be called Carpentaria-1, following approval of its Environmental Management Plan (EMP) by the Ministry. In our view, this is an important milestone.

Joining Origin and Santos, Empire is only the third company (and the first junior) to be cleared by Northern Territory authorities under the new regulatory framework implemented since the NT Government's hydraulic fracturing enquiry concluded in April 2018. In our view, EEG's EMP approvals should deliver investors significant confidence that EEG has gained both government and local landholder backing, while adhering to the strict governance protocols implemented since the NT's unconventional drilling enquiry. Each drilling appraisal stage needs to be separately approved by government authorities.

EP153 Central Trough Proposed Tanumbirini-2/2H Tanumbirini-1 Amungee-NW1H Proposed Inacumba-1/1H **EP168 EP98** Kyalla - 117N2-1 D **ER17 EP197** KEY OPERATORS Proposed EP136 EP143 Proposed Carpentaria-1 Velkerri 76 S2 100Km **EP191** Santos Origin SON FALCON

Exhibit 1: EEG's EP187 & adjoining lease holder 2020 drilling programs in the NT's Beetaloo sub-basin

Source: Company data

EEG's upcoming Carpentaria-1 vertical well, which is planned for mid-year, aims to reach a depth of ~2,900m. The well is the first to be drilled on the EP187 tenement, which lies along the SE flank of the NT's Beetaloo sub-basin.

The Carpentaria-1 well, which will be suspended for future re-entry once drilled, aims to confirm recent better than expected 2D seismic results and appraise both the Velkerri and Kyalla Shales for their potential recoverable hydrocarbon volumes present in the seismically defined Phase 1 work area, extending across 160km².

The well coring and drill gas analysis results will also determine the hydrocarbon composition of both the Velkerri and Kyalla shales (crude oil vs natural gas (liquid/dry), as well as the mechanical rock properties of these shales, ahead of designing the next phase of appraisal work.



Tanumbirini-1 **EP161** (Santos) (Santos) Proposed Tanumbirini-2/2H Proposed acumba-1/1F (2020)Proposed Carpentari FP187 O MD4 Phase 1 Work Program Area: Prospective Area of Velkerri & Kyalla Shale Gas Plays (160 km²) 20km

Exhibit 2: Planned EEG Carpentaria-1 vertical well location amid regional settings

Source: Empire Energy data graphics

Next Steps

We expect EEG to use the appraisal results from the Carpentaria-1 vertical well to next develop a vertical fracture stimulation program currently timed to commence during 4Q2020, ahead of the onset of the NT wet season. We understand the design of this vertical program would be similar to the 4-stage stimulation program to 4,000m depths, recently conducted successfully by Santos to test the Velkerri shale production flow rates at its Tanumbirini-1 well. This well is located on Santos JV's EP 161 tenement, which adjoins EEG's EP187 tenement to the west. Santos reported better-than-expected gas flow rates from the well, of over 1.2mmscf/d, comprising 90% methane; 3% ethane and less than 5% inert content, supporting the view of significant resource potential in the region. WE note that both the Kyalla and Velkerri shale formations within EEG's EP187 tenement lie some 1,000m shallower compared to the adjoining Santos/Origin permits, increasing the potential for both dry and wet gas flows, while decreasing potential total appraisal costs.

Assuming further positive appraisals from the Carpentaria-1 vertical stimulation, we anticipate EEG will next proceed to design a multi-stage horizontal well section drill and fracture stimulation evaluation program to carry out extended production tests, timed to commence in 2Q next year, once the NT's wet season ends. While we note that each of these additional drilling phases will require separate NT clearance to commence, the early-March approval for its Carpentaria-1 vertical well demonstrates that EEG is keen to meet all its landholder and regulatory requirements.

Positive results from these upcoming drilling programs could evolve EEG's current Prospective resource (P50) of 1.85bln Boe (11 Tcfe) into a Contingent resource (2C). This would place the company in an even stronger strategic negotiating position with future potential funding partners.

Funding

We expect the Carpentaria-1 vertical well and evaluation costs to be under ~A\$7m. This will leave EEG with gross cash funds of ~A\$6m to complete the planned follow-on vertical stimulation drill program slated for 4Q this year, assuming positive appraisal results from the Carpentaria-1 mid-year well. Financing is always a risk for earlier stage companies. At this point EEG has a number of financing options it can pursue.



We note that EEG has ~53.3m unlisted currently out-of-the-money options exercisable at share prices of A\$0.30 and A\$0.32 over various periods through to 30.12.2022. These options could raise a further ~A\$11m in 2020; ~A\$4.4m in 2021 and ~A\$0.5m in 2022 if they become in-the-money once again.

Date	Option Class	Issued No	Exercise price A\$	Gross Cash Value A\$
31/07/2020	Unlisted	906,250	0.32	290,000
26/09/2020	Unlisted	36,218,754	0.30	10,865,626
26/10/2020	Unlisted	600,000	0.30	180,000
30/12/2021	Unlisted	1,300,000	0.30	390,000
30/12/2021	Unlisted	300,000	0.30	90,000
30/12/2021	Unlisted	300,000	0.30	90,000
31/12/2021	Unlisted	12,000,000	0.32	3,840,000
30/12/2022	Unlisted	1,700,000	0.30	510,000
30/12/2022	Unlisted	2800000	0.60	1,020,000

EP187 Seismic results recap

According to EEG's seismic results, the top of the Velkerri Shale lies around 2,200m below surface and has a gross thickness of roughly 600m, while the shallower Kyalla shale is located ~1,200m below surface with a gross thickness of ~100m.

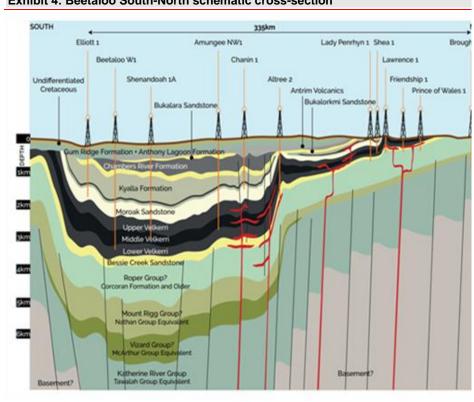


Exhibit 4: Beetaloo South-North schematic cross-section

Source: NT Department of Primary Industry & Resources

EEG's recently-finalised 2D seismic interpretations contained a number of significant strategic highlights, serving to underpin our existing net equity valuation metrics:

- a) Confirmation that the Beetaloo sub-basin shale formations extend south-east into EEG's EP187 tenement;
- b) The south-western flank of EP187 likely contains at least one area covering 160sq km, if not a second area of a similar size, benefiting from both shale formations of interest and no faulting interference. This lack of faulting also significantly de-risks the prospective site chosen for the upcoming 2,900m vertical drill Carpentaria-1 hole;



- c) The Middle Velkerri shale can be confidently mapped into EP187 with continuous thickness (up to 600m gross (270m net) over the A,B,C shales), similar to those noted in the Tanumbirini-1 well, some 76km to the north-west, although at greater depths. As noted, the Tanumbirini-1 flowed 1.2MMcfd of gas on test;
- d) The seismic data suggests the presence of the Kyalla shale over the western flank of the EP187 tenement down to a depth of c.1,200m, with a gross thickness of 100m. This is encouraging as the Kyalla shale had been considered a higher risk opportunity, which became too thin and shallow as it extended towards the east along EEG's EP187 tenement. It should also be noted that the Kyalla could be a relatively liquids rich target in EEG's areas, given the suggested depth. EEG hopes the upcoming well may confirm this upside;
- e) Both the Kyalla and Velkerri shale formations lie some 1,000m shallower through EP187, compared to the adjoining Santos/Origin permits, increasing the potential for both dry and wet gas flows, while decreasing total appraisal costs.

These seismic results now need to be confirmed during the EEG's 2020/21 vertical/horizontal well drilling program.

Further appraisal drilling results by near-neighbours, Origin/Falcon and Santos/Tamboran Resources, in the Beetaloo, will also help expand understanding of the basin's gas & oil economic potential to improve Australia's energy self-sufficiency and streamline EEG's future exploration and development plans.

Exhibit 5: 2020 Beetaloo sub-basin	– regional drilling	work programs
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Companies	Activity scheduled				
Origin / Falcon	Kyalla 117 N2 1H shale well: horizontal production flowtest results due within 2Q 2020;				
	Velkerri 76 S2 shale v.ell: begin drilling 2Q 2020; flowtest results due 4Q 2020				
	(aiming for liquids-rich gas flows under production test conditions)				
	Stage 3 follow-on: 2Q 2020 begin long-lead preparations for further 2 horizontal wells				
EEG	1Q 2020: drill rig & regulatoryapprovals; 2Q 2020: Carpentaria-1 vertical drilling begins				
	1H 2020:				
Santos / Tamboran Resources	a) EP161 Tanumbirini-1 - extended flowtest results				
	b) Inacumba 1/1H- drilling/stimulate/flowtest results				
Santos / Armour Energy	2020 South Nicholson planning; 2021: 2D seismic & well tests				
Hancock Prospecting	2H 2020: 2D seismics & 1-3 well vertical exploration drilling planned				
Pangaea Resources	Awaiting NT EMP notification				

Source: Company data

Market is pricing in spot price outcomes

We have run a sensitivity analysis on our valuation using the current spot prices for WTI Crude and USD/AUD exchange versus the average oil price of US\$70 we use in our commodity assumptions and a long run average USD/AUD exchange rate of US\$0.7285.

If we apply the current WTI spot price of US\$31.73 and exchange rate of US\$0.62, the valuation would be \$0.29/share, which suggests that the market is pricing in a commodity price which is not sustainable at these levels, in our view.



Exhibit 5: Financial Summary

EMPIRE ENERGY GR	OUP LTD	EEG				NET PRODUCTION			2018	2019	2020E	2021E
YEAR END		Dec				Crude Oil	kl		127	89	3	3
NAV	A\$mn	\$0.61				Nat Gas		nmcf	1,834	1,743	1,713	1,695
SHARE PRICE	A\$cps		ast price		13-Mar	TOTAL	k	boe	432	379	288	285
MARKET CAP	A\$mn	51				***************************************						
ORDINARY SHARES	M	263				Product Revenue		\$mn	14.0	10.3	4.3	4.3
OPTIONS	M	54				Cash Costs		\$mn	(5.1)	(4.4)	(2.3)	(2.3)
						Ave Price Realised		\$/boe	32.49	27.24	14.94	15.17
COMMODITY ASSUMP	TIONS	2018	2019	2020E	2021E	Cash Costs	A	\$/boe	(11.84)	(11.72)	(8.00)	(8.10)
Realised oil price	US\$/b	59.86	60.05	53.43	51.72	Cash Margin			20.65	15.52	6.94	7.07
Realised gas price	US\$/mcf	3.24	2.78	2.40	2.44							
Exchange Rate	A\$:US\$	0.7452	0.6945	0.6807	0.6848	RESOURCES and R	ESERVES	Prospe	ctive Resou	ırces		
									P90	P50	P10	
						Northern Territor	<u>y</u>					
EARNINGS	US\$000s	2018	2019	2020E	2021E	Gas						
Revenue		14,252	6,460	4,465	4,488	Barney Creek Fm		Bcf	3,304	8,699	20,172	
Cost of sales		(9,253)	(5,008)	(3,257)	(3,277)	Velkerri Fm		Bcf	383	1,192	3,086	
Gross Profit		4,999	1,452	1,208	1,211	Wooogorang Fm		Bcf	524	1,185	2,371	
Other revenue						TOTAL			4,211	11,076	25,629	
Other income		2,304	208	200	200							
Exploration written off		0	(199)	0	0	Oil						
Finance costs		(2,976)	(1,919)	23	45	Barney Creek Fm		Mb	66	174	403	
Impairment		0	0	0	0	Velkerri Fm	***************************************	Mb	8	24	62	***************************************
Other expenses		(20,079)	(7,210)	(4,950)	(4,985)	Wooogorang Fm		Mb	10	24	47	
Profit before tax		(15,752)	(7,668)	(3,518)	(3,529)	TOTAL			84	222	512	
Taxes		(115)	(86)	0	0							
NPAT Reported		(15,867)	(7,754)	(3,518)	(3,529)				1P	2P	3P	
Underlying Adjustments		(101)	(2,995)	0	0	US		***************************************				
NPAT Underlying		(15,968)	(10,749)	(3,518)	(3,529)	Gas		Bcf	50.0	57.0	61.0	
CASHFLOW US\$000s 2018 2019 2020E 2021E					2021E	EQUITY VALUATION)N			•		
Operational Cash Flow		2,828	205	117	431		Risked R	ange (In A	\$M)	Risked Ra	nge Per Shar	e (A\$)
Net Interest		(2,974)	(1,919)	23	45	NT	Low	Mid	High	Low	Mid	High
Taxes Paid						Gas	\$72	\$108	\$244	\$0.27	\$0.41	\$0.93
Other		(115)	(84)	(30)	(30)	Oil	\$23	\$35	\$78	\$0.09	\$0.13	\$0.30
Net Operating Cashflo	w	(261)	(1,799)	111	446	US Onshore						
Exploration		0	0	(6,000)	(6,000)	Appalachian	\$9	\$17	\$26	\$0.03	\$0.06	\$0.10
PP&E		()						\$160			٥٥.٥٥	
Petroleum Assets		(49)	(113)	0	0		\$104	ΣTOU	\$347	\$0.40	\$0.61	\$1.32
Net Asset Sales/other		(49)	(113) (19)	0	0	Net cash/(debt)		\$160 \$5	\$347 \$5		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	\$1.32
Net Asset Sales/ Other			~~~~			Net cash/(debt) Corporate costs	\$104 \$5	\$5	\$5		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	\$1.32
Net Investing Cashflov		(168)	(19)	0	0		\$104	~~~~~			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	\$1.32
	<u>v</u>	(168) 359	(19) 18,453	0 (361)	0 (696)		\$104 \$5	\$5	\$5			\$1.32 \$1.32
Net Investing Cashflow Dividends Paid	V	(168) 359 (120) 0	(19) 18,453 16,522 0	0 (361) (6,250) 0	0 (696) (6,250) 0	Corporate costs	\$104 \$5 (\$5)	\$5 (\$5)	\$5 (\$5)	\$0.40	\$0.61	
Net Investing Cashflow Dividends Paid Net Debt Drawdown	V	(168) 359 (120)	(19) 18,453 16,522	0 (361) (6,250)	(696) (6,250)	Corporate costs	\$104 \$5 (\$5)	\$5 (\$5)	\$5 (\$5)	\$0.40	\$0.61	
Net Investing Cashflow Dividends Paid	v	(168) 359 (120) 0 (7,878)	(19) 18,453 16,522 0 (17,936)	0 (361) (6,250) 0 (2,001)	0 (696) (6,250) 0 (2,018)	Corporate costs TOTAL	\$104 \$5 (\$5)	\$5 (\$5)	\$5 (\$5)	\$0.40	\$0.61	
Net Investing Cashflow Dividends Paid Net Debt Drawdown Equity Issues/(Buyback) Other		(168) 359 (120) 0 (7,878) 11,677	(19) 18,453 16,522 0 (17,936) 7,627 0	0 (361) (6,250) 0 (2,001) 0	0 (696) (6,250) 0 (2,018) 0	TOTAL RATIO ANALYSIS	\$104 \$5 (\$5) \$104	\$5 (\$5)	\$5 (\$5) \$347 2018	\$0.40 \$0.40 2019	\$0.61 \$0.61 2020E	\$1.32 2021E
Net Investing Cashflow Dividends Paid Net Debt Drawdown Equity Issues/(Buyback) Other Net Financing Cashflow		(168) 359 (120) 0 (7,878) 11,677 0 3,785	(19) 18,453 16,522 0 (17,936) 7,627 0 (10,321)	0 (361) (6,250) 0 (2,001) 0 (2,001)	0 (696) (6,250) 0 (2,018) 0 (2,018)	TOTAL RATIO ANALYSIS Shares Outstanding	\$104 \$5 (\$5) \$104	\$5 (\$5) \$160	\$5 (\$5) \$347 2018 2313	\$0.40 \$0.40 2019 263	\$0.61 \$0.61 2020E 263	\$1.32 2021E 263
Net Investing Cashflow Dividends Paid Net Debt Drawdown Equity Issues/(Buyback) Other		(168) 359 (120) 0 (7,878) 11,677	(19) 18,453 16,522 0 (17,936) 7,627 0	0 (361) (6,250) 0 (2,001) 0	0 (696) (6,250) 0 (2,018) 0	TOTAL RATIO ANALYSIS	\$104 \$5 (\$5) \$104	\$5 (\$5) \$160	\$5 (\$5) \$347 2018	\$0.40 \$0.40 2019	\$0.61 \$0.61 2020E	\$1.32 2021E
Net Investing Cashflow Dividends Paid Net Debt Drawdown Equity Issues/(Buyback) Other Net Financing Cashflow Net Change in Cash	w	(168) 359 (120) 0 (7,878) 11,677 0 3,785 3,404	(19) 18,453 16,522 0 (17,936) 7,627 0 (10,321) 4,402	0 (361) (6,250) 0 (2,001) 0 (2,001) (8,140)	0 (696) (6,250) 0 (2,018) 0 (2,018) (7,822)	TOTAL RATIO ANALYSIS Shares Outstanding EPS (pre sig items) EPS	\$104 \$5 (\$5) \$104 M US Ac	\$5 (\$5) \$160	\$5 (\$5) \$347 2018 2313 (1.05) (1.41)	\$0.40 \$0.40 2019 263 (4.43) (6.33)	\$0.61 \$0.61 2020E 263 (1.34) (1.97)	\$1.32 2021E 263 (1.34) (1.96)
Net Investing Cashflow Dividends Paid Net Debt Drawdown Equity Issues/(Buyback) Other Net Financing Cashflow Net Change in Cash		(168) 359 (120) 0 (7,878) 11,677 0 3,785 3,404	(19) 18,453 16,522 0 (17,936) 7,627 0 (10,321) 4,402	0 (361) (6,250) 0 (2,001) 0 (2,001) (8,140)	0 (696) (6,250) 0 (2,018) 0 (2,018) (7,822)	TOTAL RATIO ANALYSIS Shares Outstanding EPS (pre sig items) EPS PER	\$104 \$5 (\$5) \$104 M US Ac X	\$5 (\$5) \$160 ccps	\$5 (\$5) \$347 2018 2313 (1.05) (1.41)	\$0.40 \$0.40 2019 263 (4.43) (6.33) na	\$0.61 \$0.61 2020E 263 (1.34) (1.97) na	\$1.32 2021E 263 (1.34) (1.96) na
Net Investing Cashflow Dividends Paid Net Debt Drawdown Equity Issues/(Buyback) Other Net Financing Cashflow Net Change in Cash BALANCE SHEET Cash & Equivalents	w	(168) 359 (120) 0 (7,878) 11,677 0 3,785 3,404 2018 4,157	(19) 18,453 16,522 0 (17,936) 7,627 0 (10,321) 4,402 2019 8,503	0 (361) (6,250) 0 (2,001) 0 (2,001) (8,140) 2020E 363	0 (696) (6,250) 0 (2,018) 0 (2,018) (7,822) 2021E (7,459)	TOTAL RATIO ANALYSIS Shares Outstanding EPS (pre sig items) EPS	\$104 \$5 (\$5) \$104 M US Ac; x	\$5 (\$5) \$160 ccps	\$5 (\$5) \$347 2018 2313 (1.05) (1.41)	\$0.40 \$0.40 2019 263 (4.43) (6.33)	\$0.61 \$0.61 2020E 263 (1.34) (1.97)	\$1.32 2021E 263 (1.34) (1.96)
Net Investing Cashflow Dividends Paid Net Debt Drawdown Equity Issues/(Buyback) Other Net Financing Cashflow Net Change in Cash BALANCE SHEET Cash & Equivalents PP&E & Development	w	(168) 359 (120) 0 (7,878) 11,677 0 3,785 3,404 2018 4,157 52,228	(19) 18,453 16,522 0 (17,936) 7,627 0 (10,321) 4,402 2019 8,503 30,897	0 (361) (6,250) 0 (2,001) 0 (2,001) (8,140) 2020E 363 33,662	0 (696) (6,250) 0 (2,018) 0 (2,018) (7,822) 2021E (7,459) 40,112	RATIO ANALYSIS Shares Outstanding EPS (pre sig items) EPS PER OCFPS CFR	\$104 \$5 (\$5) \$104 M US Act X	\$5 (\$5) \$160 ccps	\$5 (\$5) \$347 2018 2313 (1.05) (1.41) na (0.15)	\$0.40 \$0.40 2019 263 (4.43) (6.33) na (9.87)	\$0.61 \$0.61 2020E 263 (1.34) (1.97) na 0.62	\$1.32 2021E 263 (1.34) (1.96) na 2.48
Net Investing Cashflow Dividends Paid Net Debt Drawdown Equity Issues/(Buyback) Other Net Financing Cashflow Net Change in Cash BALANCE SHEET Cash & Equivalents PP&E & Development Exploration	w	(168) 359 (120) 0 (7,878) 11,677 0 3,785 3,404 2018 4,157 52,228 0	(19) 18,453 16,522 0 (17,936) 7,627 0 (10,321) 4,402 2019 8,503 30,897 410	0 (361) (6,250) 0 (2,001) 0 (2,001) (8,140) 2020E 363 33,662 369	0 (696) (6,250) 0 (2,018) (7,822) 2021E (7,459) 40,112 332	RATIO ANALYSIS Shares Outstanding EPS (pre sig items) EPS PER OCEPS CFR DPS	\$104 \$5 (\$5) \$104 M US Ac; X Ac; Ac;	\$5 (\$5) \$160 ccps	\$5 (\$5) \$347 2018 2313 (1.05) (1.41) na (0.15)	\$0.40 \$0.40 2019 263 (4.43) (6.33) na (9.87)	\$0.61 \$0.61 2020E 263 (1.34) (1.97) na 0.62	\$1.32 2021E 263 (1.34) (1.96) na 2.48
Net Investing Cashflow Dividends Paid Net Debt Drawdown Equity Issues/(Buyback) Other Net Financing Cashflow Net Change in Cash BALANCE SHEET Cash & Equivalents PP&E & Development Exploration Other Assets	w	(168) 359 (120) 0 (7,878) 11,677 0 3,785 3,404 2018 4,157 52,228 0 7,686	(19) 18,453 16,522 0 (17,936) 7,627 0 (10,321) 4,402 2019 8,503 30,897 410 2,270	0 (361) (6,250) 0 (2,001) 0 (2,001) (8,140) 2020E 363 33,662 369 972	0 (696) (6,250) 0 (2,018) 0 (2,018) (7,822) 2021E (7,459) 40,112 332 1,503	RATIO ANALYSIS Shares Outstanding EPS (pre sig items) EPS PER OCEPS CFR DPS Dividend Yield	\$104 \$5 (\$5) \$104 M US Ac; x Ac; x Ac; %	\$5 (\$5) \$160 \$100 \$150 \$150 \$150 \$150 \$150 \$150 \$15	\$5 (\$5) \$347 2018 2313 (1.05) (1.41) na (0.15) na	\$0.40 \$0.40 2019 263 (4.43) (6.33) na (9.87) na	\$0.61 \$0.61 2020E 263 (1.34) (1.97) na 0.62 na	\$1.32 2021E 263 (1.34) (1.96) na 2.48 na
Net Investing Cashflow Dividends Paid Net Debt Drawdown Equity Issues/(Buyback) Other Net Financing Cashflow Net Change in Cash BALANCE SHEET Cash & Equivalents PP&E & Development Exploration Other Assets Total Assets	w	(168) 359 (120) 0 (7,878) 11,677 0 3,785 3,404 2018 4,157 52,228 0 7,686 64,071	(19) 18,453 16,522 0 (17,936) 7,627 0 (10,321) 4,402 2019 8,503 30,897 410 2,270 42,080	0 (361) (6,250) 0 (2,001) 0 (2,001) (8,140) 2020E 363 33,662 972 35,366	(696) (6,250) 0 (2,018) 0 (2,018) (7,822) 2021E (7,459) 40,112 332 1,503 34,488	Corporate costs TOTAL RATIO ANALYSIS Shares Outstanding EPS (pre sig items) EPS PER OCFPS CFR DPS Dividend Yield BVPS	\$104 \$55 (\$5) \$104 M US Ac; x Ac; x Ac; x Ac; x Ac; x Ac; Ac; Ac; Ac; Ac; Ac; Ac; Ac;	\$5 (\$5) \$160 \$100 \$150 \$150 \$150 \$150 \$150 \$150 \$15	\$5 (\$5) \$347 2018 2313 (1.05) (1.41) na (0.15) na	\$0.40 \$0.40 2019 263 (4.43) (6.33) na (9.87) na	\$0.61 \$0.61 2020E 263 (1.34) (1.97) na 0.62 na	\$1.32 2021E 263 (1.34) (1.96) na 2.48 na
Net Investing Cashflow Dividends Paid Net Debt Drawdown Equity Issues/(Buyback) Other Net Financing Cashflow Net Change in Cash BALANCE SHEET Cash & Equivalents PP&E & Development Exploration Other Assets Total Assets Debt	w	(168) 359 (120) 0 (7,878) 11,677 0 3,785 3,404 2018 4,157 52,228 0 7,686 64,071 24,440	(19) 18,453 16,522 0 (17,936) 7,627 0 (10,321) 4,402 2019 8,503 30,897 410 2,270 42,080 7,575	0 (361) (6,250) 0 (2,001) 0 (2,001) (8,140) 2020E 363 33,662 369 972 35,366 6,049	0 (696) (6,250) 0 (2,018) 0 (2,018) (7,822) 2021E (7,459) 40,112 332 1,503 34,488 4,031	RATIO ANALYSIS Shares Outstanding EPS (pre sig items) EPS PER OCFPS CFR DPS Dividend Yield BVPS Price/Book	\$104 \$5 (\$5) \$104 M MS ACI X ACI X ACI X ACI X	\$5 (\$5) \$160 \$100 \$150 \$150 \$150 \$150 \$150 \$150 \$15	\$5 (\$5) \$347 2018 2313 (1.05) (1.41) na (0.15) na	\$0.40 \$0.40 2019 263 (4.43) (6.33) na (9.87) na	\$0.61 \$0.61 2020E 263 (1.34) (1.97) na 0.62 na 4.6 4.2x	\$1.32 2021E 263 (1.34) (1.96) na 2.48 na 2.9 6.7x
Net Investing Cashflow Dividends Paid Net Debt Drawdown Equity Issues/(Buyback) Other Net Financing Cashflow Net Change in Cash BALANCE SHEET Cash & Equivalents PP&E & Development Exploration Other Assets Total Assets Debt Other Liabilities	w	(168) 359 (120) 0 (7,878) 11,677 0 3,785 3,404 2018 4,157 52,228 0 7,686 64,071 24,440 18,262	(19) 18,453 16,522 0 (17,936) 7,627 0 (10,321) 4,402 2019 8,503 30,897 410 2,270 42,080 7,575 16,824	0 (361) (6,250) 0 (2,001) 0 (2,001) (8,140) 2020E 363 33,662 369 972 35,366 6,049 21,054	0 (696) (6,250) 0 (2,018) 0 (2,018) (7,822) 2021 (7,459) 40,112 332 1,503 34,488 4,031 25,202	RATIO ANALYSIS Shares Outstanding EPS (pre sig items) EPS OCFPS CFR DPS Dividend Yield BVPS Price/Book ROE	\$104 \$55 (\$5) \$104 M US Ac ₁ x Ac ₂ x Ac ₃ Ac ₄ x Ac ₅ x Ac ₆ x Ac ₇ x Ac ₈ x Ac ₉ x Ac ₉ x	\$5 (\$5) \$160 \$100 \$150 \$150 \$150 \$150 \$150 \$150 \$15	\$5 (\$5) \$347 2018 2313 (1.05) (1.41) na (0.15) na	\$0.40 \$0.40 2019 263 (4.43) (6.33) na (9.87) na	\$0.61 \$0.61 2020E 263 (1.34) (1.97) na 0.62 na 4.6 4.2x na	2021E 263 (1.34) (1.96) na 2.48 na 2.9 6.7x
Net Investing Cashflow Dividends Paid Net Debt Drawdown Equity Issues/(Buyback) Other Net Financing Cashflow Net Change in Cash BALANCE SHEET Cash & Equivalents PP&E & Development Exploration Other Assets Total Assets Debt Other Liabilities Total Liabilities	W US\$000s	(168) 359 (120) 0 (7,878) 11,677 0 3,785 3,404 2018 4,157 52,228 0 7,686 64,071 24,440 18,262 42,701	(19) 18,453 16,522 0 (17,936) 7,627 0 (10,321) 4,402 2019 8,503 30,897 410 2,270 42,080 7,575 16,824 24,399	0 (361) (6,250) 0 (2,001) 0 (2,001) (8,140) 2020E 363 33,662 369 972 35,366 6,049 21,054 27,103	0 (696) (6,250) 0 (2,018) 0 (2,018) (7,822) 2021E (7,459) 40,112 332 1,503 34,488 4,031 25,202 29,233	RATIO ANALYSIS Shares Outstanding EPS (pre sig items) EPS PER OCFPS CFR DPS Dividend Yield BVPS Price/Book ROE ROA	\$104 \$55 (\$5) \$104 M US Acı x Acı % Acı x Acı % Acı Acı Acı Acı Acı Acı Acı Acı	\$5 (\$5) \$160 \$100 \$150 \$150 \$150 \$150 \$150 \$150 \$15	\$5 (\$5) \$347 2018 2313 (1.05) (1.41) na (0.15) na	\$0.40 \$0.40 2019 263 (4.43) (6.33) na (9.87) na	\$0.61 \$0.61 2020E 263 (1.34) (1.97) na 0.62 na 4.6 4.2x	\$1.32 2021E 263 (1.34) (1.96) na 2.48 na 2.9 6.7x
Net Investing Cashflow Dividends Paid Net Debt Drawdown Equity Issues/(Buyback) Other Net Financing Cashflow Net Change in Cash BALANCE SHEET Cash & Equivalents PP&E & Development Exploration Other Assets Debt Other Liabilities Total Liabilities Net Assets/Shareholde	W US\$000s	(168) 359 (120) 0 (7,878) 11,677 0 3,785 3,404 2018 4,157 52,228 0 7,686 64,071 24,440 18,262 42,701 21,370	(19) 18,453 16,522 0 (17,936) 7,627 0 (10,321) 4,402 2019 8,503 30,897 410 2,270 42,080 7,575 16,824 24,399 17,681	0 (361) (6,250) 0 (2,001) 0 (2,001) (8,140) 2020E 363 33,662 369 972 35,366 6,049 21,054 27,103 8,263	(696) (6,250) (2,018) (2,018) (7,822) (7,459) 40,112 332 1,503 34,488 4,031 2,502 29,233 5,255	Corporate costs TOTAL RATIO ANALYSIS Shares Outstanding EPS (pre sig items) EPS PER OCFPS CFR DPS Dividend Yield BVPS Price/Book ROE ROA (Trailing) Debt/Cash	\$104 \$55 (\$5) \$104 M US Ac; X Ac; % Ac; & Ac; & Ac; & Ac; & Ac; & Ac; & Ac; Ac; Ac; Ac; Ac; Ac; Ac; Ac;	\$5 (\$5) \$160 \$100 \$150 \$150 \$150 \$150 \$150 \$150 \$15	\$5 (\$5) \$347 2018 2313 (1.05) (1.41) na (0.15) na	\$0.40 \$0.40 2019 263 (4.43) (6.33) na (9.87) na	\$0.61 \$0.61 2020E 263 (1.34) (1.97) na 0.62 na 4.6 4.2x na	2021E 263 (1.34) (1.96) na 2.48 na 2.9 6.7x
Net Investing Cashflow Dividends Paid Net Debt Drawdown Equity Issues/(Buyback) Other Net Financing Cashflow Net Change in Cash BALANCE SHEET Cash & Equivalents PP&E & Development Exploration Other Assets Total Assets Debt Other Liabilities Net Assets/Shareholde Net Cash/(Debt)	W US\$000s	(168) 359 (120) 0 (7,878) 11,677 0 3,785 3,404 2018 4,157 52,228 0 7,686 64,071 24,440 18,262 42,701 21,370 (20,282)	(19) 18,453 16,522 0 (17,936) 7,627 0 (10,321) 4,402 2019 8,503 30,897 410 2,270 42,080 7,575 16,824 24,399	0 (361) (6,250) 0 (2,001) 0 (2,001) (8,140) 2020E 363 33,662 369 972 35,366 6,049 21,054 27,103	0 (696) (6,250) 0 (2,018) 0 (2,018) (7,822) 2021E (7,459) 40,112 332 1,503 34,488 4,031 25,202 29,233	Corporate costs TOTAL RATIO ANALYSIS Shares Outstanding EPS (pre sig items) EPS PER OCFPS CFR DPS Dividend Yield BVPS Price/Book ROE ROA (Trailing) Debt/Cash Interest Cover	\$104 \$55 (\$5) \$104 M US Ac; X Ac; X Ac; % Ac; % % % %	\$5 (\$5) \$160 \$160 \$250 \$250 \$250 \$250 \$250 \$250 \$250 \$25	\$5 (\$5) \$347 2018 2313 (1.05) (1.41) na (0.15) na	\$0.40 \$0.40 2019 263 (4.43) (6.33) na (9.87) na 9.7 2.0x na	\$0.61 \$0.61 2020E 263 (1.34) (1.97) na 0.62 na 4.6 4.2x na na	\$1.32 2021E 263 (1.34) (1.96) na 2.48 na 2.9 6.7x na
Net Investing Cashflow Dividends Paid Net Debt Drawdown Equity Issues/(Buyback) Other Net Financing Cashflow Net Change in Cash BALANCE SHEET Cash & Equivalents PP&E & Development Exploration Other Assets Debt Other Liabilities Total Liabilities Net Assets/Shareholde	W US\$000s	(168) 359 (120) 0 (7,878) 11,677 0 3,785 3,404 2018 4,157 52,228 0 7,686 64,071 24,440 18,262 42,701 21,370	(19) 18,453 16,522 0 (17,936) 7,627 0 (10,321) 4,402 2019 8,503 30,897 410 2,270 42,080 7,575 16,824 24,399 17,681	0 (361) (6,250) 0 (2,001) 0 (2,001) (8,140) 2020E 363 33,662 369 972 35,366 6,049 21,054 27,103 8,263	(696) (6,250) (2,018) (2,018) (7,822) (7,459) 40,112 332 1,503 34,488 4,031 2,502 29,233 5,255	RATIO ANALYSIS Shares Outstanding EPS (pre sig items) EPS PER OCFPS CFR DPS Dividend Yield BVPS Price/Book ROE ROA (Trailing) Debt/Cash Interest Cover Gross Profit/share	\$104 \$55 (\$5) \$104 M US Ac; X Ac; % Ac; % % % Ac; X Ac; X Ac; X Ac; X Ac; X Ac; X Ac; X Ac; Ac; Ac; Ac; Ac; Ac; Ac; Ac;	\$5 (\$5) \$160 \$160 CCPS (CPS (SPS (SPS (SPS (SPS (SPS (SPS	\$5 (\$5) \$347 2018 2313 (1.05) (1.41) na (0.15) na	\$0.40 \$0.40 2019 263 (4.43) (6.33) na (9.87) na 9.7 2.0x na na	\$0.61 \$0.61 2020E 263 (1.34) (1.97) na 0.62 na 4.6 4.2x na na	\$1.32 2021E 263 (1.34) (1.96) na 2.48 na 2.9 6.7x na na
Net Investing Cashflow Dividends Paid Net Debt Drawdown Equity Issues/(Buyback) Other Net Financing Cashflow Net Change in Cash BALANCE SHEET Cash & Equivalents PP&E & Development Exploration Other Assets Total Assets Debt Other Liabilities Total Liabilities Net Assets/Shareholde Net Cash/(Debt) Gearing dn/(dn+e)	W US\$000s	(168) 359 (120) 0 (7,878) 11,677 0 3,785 3,404 2018 4,157 52,228 0 7,686 64,071 24,440 18,262 42,701 21,370 (20,282)	(19) 18,453 16,522 0 (17,936) 7,627 0 (10,321) 4,402 2019 8,503 30,897 410 2,270 42,080 7,575 16,824 24,399 17,681	0 (361) (6,250) 0 (2,001) 0 (2,001) (8,140) 2020E 363 33,662 369 972 35,366 6,049 21,054 27,103 8,263	(696) (6,250) (2,018) (2,018) (7,822) (7,459) 40,112 332 1,503 34,488 4,031 2,502 29,233 5,255	Corporate costs TOTAL RATIO ANALYSIS Shares Outstanding EPS (pre sig items) EPS PER OCFPS CFR DPS Dividend Yield BVPS Price/Book ROE ROA (Trailing) Debt/Cash Interest Cover	\$104 \$55 (\$5) \$104 M US Ac; X Ac; X Ac; % Ac; % % % %	\$5 (\$5) \$160 \$160 CCPS (CPS (SPS (SPS (SPS (SPS (SPS (SPS	\$5 (\$5) \$347 2018 2313 (1.05) (1.41) na (0.15) na	\$0.40 \$0.40 2019 263 (4.43) (6.33) na (9.87) na 9.7 2.0x na	\$0.61 \$0.61 2020E 263 (1.34) (1.97) na 0.62 na 4.6 4.2x na na	\$1.32 2021E 263 (1.34) (1.96) na 2.48 na 2.9 6.7x na na
Net Investing Cashflow Dividends Paid Net Debt Drawdown Equity Issues/(Buyback) Other Net Financing Cashflow Net Change in Cash BALANCE SHEET Cash & Equivalents PP&E & Development Exploration Other Assets Total Assets Debt Other Liabilities Net Assets/Shareholde Net Cash/(Debt)	W US\$000s	(168) 359 (120) 0 (7,878) 11,677 0 3,785 3,404 2018 4,157 52,228 0 7,686 64,071 24,440 18,262 42,701 21,370 (20,282)	(19) 18,453 16,522 0 (17,936) 7,627 0 (10,321) 4,402 2019 8,503 30,897 410 2,270 42,080 7,575 16,824 24,399 17,681	0 (361) (6,250) 0 (2,001) 0 (2,001) (8,140) 2020E 363 33,662 369 972 35,366 6,049 21,054 27,103 8,263	(696) (6,250) (2,018) (2,018) (7,822) (7,459) 40,112 332 1,503 34,488 4,031 2,502 29,233 5,255	RATIO ANALYSIS Shares Outstanding EPS (pre sig items) EPS PER OCFPS CFR DPS Dividend Yield BVPS Price/Book ROE ROA (Trailing) Debt/Cash Interest Cover Gross Profit/share	\$104 \$55 (\$5) \$104 M US Ac; X Ac; % Ac; % % % Ac; X Ac; X Ac; X Ac; X Ac; X Ac; X Ac; X Ac; Ac; Ac; Ac; Ac; Ac; Ac; Ac;	\$5 (\$5) \$160 \$160 CCPS (CPS (SPS (SPS (SPS (SPS (SPS (SPS	\$5 (\$5) \$347 2018 2313 (1.05) (1.41) na (0.15) na	\$0.40 \$0.40 2019 263 (4.43) (6.33) na (9.87) na 9.7 2.0x na na	\$0.61 \$0.61 2020E 263 (1.34) (1.97) na 0.62 na 4.6 4.2x na na	\$1.32 2021E 263 (1.34) (1.96) na 2.48 na 2.9 6.7x na na

Source: RaaS Advisory



FINANCIAL SERVICES GUIDE

RaaS Advisory Pty Ltd ABN 99 614 783 363

Corporate Authorised Representative, number 1248415

of

BR SECURITIES AUSTRALIA PTY LTD
ABN 92 168 734 530
AFSL 456663

Effective Date: 26th November 2018



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- how we transact with you
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- complaint processes

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