

# **AUSTRALIAN POTASH LIMITED (APC)**

## Lake Wells DFS now in finals stages for delivery

Australian Potash Limited (APC) continues to progress development studies for its 100%-owned Lake Wells Sulphate of Potash (SOP) Project in WA. The Definitive Feasibility Study (DFS) is now due to be delivered in H2 CY19, and we see potential for the study to be released in Q3 CY19.

APC recently commenced activities to assess the optimal commercial-scale pond construction technique for the project. The Company is planning on using un-lined ponds on the playa lake (Lake Wells), taking advantage of a surface clay layer to seal the base of the ponds and with this work assessing (economically and technically) the best wall construction technique to seal the walls of the ponds. A pond wall barrier is required to minimise lateral seepage, with APC now testing four different construction techniques (natural material on-site, a steel sheet pile, a bentonite clay layer mixture and a geo-polymer liner). The construction of the trial ponds are expected to be completed in June, upon which time the test ponds will be filled with brine and seepage monitored. The important design information will feed into the DFS, with the cheapest and most efficient wall construction technique adopted.

APC has an envious position of having a deep palaeochannel (3-4x deeper than peers) which is expected to make the estimation of reserves, and the abstraction of the brine easier. The other field work required prior to the DFS release is the test-pumping program on the production wells. Five production wells have thus far been installed with another 2-3 bores due to be installed as part of the current work program. It should be noted that ~30% of the Stage 1 bore-field is now expected to be production-ready at the completion of the DFS. Once developed, Lake Wells is expected to be serviced by some 35 bores, enabling the production of 150ktpa of SOP (Stage 1), scaling up to 75 bores for production of 300ktpa of SOP (Stage 2). An update on the bore installation drilling is expected in the coming weeks.

## Well located, logistics solution and developing offtake channels

The Lake Wells SOP project is located ~280kms from a rail terminal at Leonora, making it the closest SOP project in Australia to bulk rail infrastructure. In addition, the local shire of Laverton continues with works to tar-seal the Great Central Road, providing ~70kms of bitumen for improved transport logistics. The upgrade of the access road into Lake Wells (~90kms) is also being considered, and under an agreement with the shire, will be partly funded by off-setting some annual rates.

APC already has MoUs in place for a combined 200ktpa of SOP in off-takes. Potential Chinese partners (Sino-Agri and Hubei-Agri) have received SOP trade samples (high-grade and purity) from field evaporated feeder salts for detailed testwork. Formal offtake relationships continue to be progressed.

## DFS release will be major milestone, funding seen as key risk

APC remains undervalued on peer comparisons, and we would argue offers compelling value, in regards to highly favourable economics, transport infrastructure, low capital intensity and high-quality SOP product offerings.

We maintain our Speculative Buy on APC, with a price target of 25cps. APC's current cash position is ~A\$3.4M, which funds the completion of DFS studies, and provides some working capital. Project development funding is seen as the key risk, assuming a favourable DFS outcome is delivered.

# **Speculative Buy**

	10 Jun 2019
Share Price	\$0.076
Valuation	\$0.33
Price Target (12 month)	\$0.25

#### **Brief Business Description:**

Potash (SOP) explorer/developer

#### Hartleys Brief Investment Conclusion

100%-ow ned Sulphate of Potash (SOP) Project at Lake Wells in WA. Targeting brine SOP production of 150ktpa ramping up to 300ktpa for domestic and export markets. DFS due in H2 CY19. Gold exploration funded by SBM.

Jim Walker (Non-Exec Chair) Matt Shackleton (MD & CEO)

### Top Shareholders

Yandal Investments (Creasy)	8.5%
Perth Select Seafood	4.5%
Board and Management	2.1%

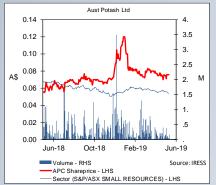
## Company Address

31 Ord Street	
West Perth WA	6005

Issued Capital		357.6m
- fully diluted		464.4m
Market Cap		A\$27.2m
- fully diluted		A\$35.3m
Cash (est)		A\$3.4m
Debt (est)		A\$0.0m
EV		A\$23.8m
EV/Resource t		A\$1.62/t
EV/Reserve t		na

LV/Neservet			IIa
Prelim. (A\$m)	FY20e	FY21e	FY22e
Prod (Mt)	0.00	0.04	0.15
Op Cash Flw	-6.7	7.8	34.3
Norm NPAT	-10.6	5.7	31.9
CF/Share (cps)	-1.1	0.4	2.7
EPS (cps)	-1.5	0.5	3.5
P/E	-7.0	19.6	2.8

1/2			
	VolMCM	SOP mg/L	M t SOP
Resources (SOP)	20,329	7,896	14.7
Reserves (SOP)	na	na	na



#### Mike Millikan

Resources Analyst

Ph: +61 8 9268 2805

E: mike.millikan@hartleys.com.au

Hartlevs has completed a capital raising in the past 12 months for Australian Potash Limited ("APC") for which it has earned gross fees. Hartleys has assisted in the completion of a capital raisings in the past 12 months for APC for which is has earned gross fees. The analyst has a beneficial interest in APC shares.

# **SUMMARY MODEL**

Australian Potash APC						re Price \$0.076						Specul	June 2 ative E
Key Market Information							Directors					Company Ir	nforma
Share Price						\$0.076	Jim Walker (Non-Exec Chair)					<del></del>	1 Ord St
Narket Capitalisation - ordinar	y					\$27.2m	Matt Shackleton (MD & CEO)					West Per	
Net Debt (cash)						-\$3m	Rhett Brans (Non-Excec Dir)					+61 8	8 9322 1
Varket Capitalisation - fully dil	uted					\$35.3m	Brett Lambert (Non-Exec Dir)				www	.australianpot	tash.cor
EV						\$14.7m	Sophie Raven (Company Secretary	/)					
Issued Capital						357.6m							
Options						106.8m	Scott Nicholas (Chief Financial Offic			stew art McCal		ın)	
Issued Capital (fully diluted in			ial)			464.4m	Jay Hussey (Chief Commerical Offi	icer -CCO)	C	hris Shaw (E	xpl Man)		
Issued Capital (fully diluted in	s. all options	and new capit	al)			1244.4m	Top Shareholders					m shares	%
Valuation						\$0.33	Yandal Investments (Creasy)					30.5	8
12month price target						\$0.25	Perth Select Seafood					16.0	4
							Board and Management					7.5	2
P&L	Unit	30 Jun 18	30 Jun 19	30 Jun 20	30 Jun 21	30 Jun 22	ű						
Net Revenue	A\$m	1.9	0.0	0.0	30.6	122.4	Reserves & Resources Vo	IMCM	Yield	Brine Vol	K (mg/L)	SOP (mg/L)	SOF
Total Costs	A\$m	-6.9	-5.3	-6.5	-16.6	-61.1	TOTAL RESERVES	-	-	-	-		
EBITDA	A\$m	-5.0	-5.3	-6.5	14.0	61.3	Measured	-	-	-	-	-	
- margin		na	na	-	46%	50%		17,050	9%	1,521	3,707	8,267	1
Depreciation/Amort	A\$m	0.0	-0.1	-1.4	-6.0	-9.9		3,279	10%	340	2,674	5,963	
EBIT	A\$m	-5.0	-5.4	-8.0	7.9	51.4	TOTAL RESOURCES 2	20,329	9%	1,861	3,541	7,896	1
Net Interest	A\$m	0.0	0.1	-0.2	-3.5	-5.8							
Pre-Tax Profit	A\$m	-5.0	-5.2	-8.1	4.4	45.6	Design to the second						
Tax Expense	A\$m	0.0	0.0	0.0	0.0	-13.7	Production Summary	Unit		Jun 20	Jun 21	Jun 22	Ju
Normalised NPAT	A\$m	-6.5	-6.8	-10.6	5.7	31.9	Mill Throughput	Mt		-	0.04	0.15	
Abnormal Items	A\$m	1.5	1.6	2.4	-1.3	0.0	Potash equiv	Mt		-	0.04	0.15	
Reported Profit	A\$m	-5.0	-5.2	-8.1	4.4	31.9	Potash equiv (Attrib)	Mt		-	0.04	0.15	
Minority	A\$m	0.0	0.0	0.0	0.0	0.0	Potash (SOP)	Mt		-	0.04	0.15	
Profit Attrib	A\$m	-5.0	-5.2	-8.1	4.4	31.9	NaCl (Industrial)	Mt		-	0.00	0.00	
Dalanas Chast	Unit	20 lun 10	20 110	00 Jun 00	20 Jun 04	20 Jun 00	NaCl (De-icing)	Mt		-	0.00	0.00	
Balance Sheet	Unit					30 Jun 22	Conversion of resources not in res						
Cash Other Current Assets	A\$m	2.2	2.3	145.8	12.3	19.4	Mine Life	yr Unit		20.0	20.0	19.0	lu
Other Current Assets	A\$m	0.1	0.0	0.0	3.0	11.9	Costs	Unit		Jun 20	Jun 21	Jun 22	Ju
Total Current Assets	A\$m	2.3	2.3 0.0	145.8 43.6	<b>15.3</b> 174.5	<b>31.3</b> 172.7	Cost per processed tonne	\$A/t		-	390.0	390.0	39
Property, Plant & Equip.	A\$m	0.1					EBITDA / tonne processed ore	\$A/t		-	372.1	408.3	40
Exploration	A\$m	0.0	4.1	9.1	11.1	13.1	Total cash costs	\$A/t 6	_	-	443.7	407.5	40
Investments/other	A\$m	0.0	0.0	0.0	0.0	0.0 <b>185.7</b>	Total cash costs		equiv.	-	330.6	309.7	31
Tot Non-Curr. Assets Total Assets	A\$m A\$m	0.1 2.5	4.1 6.4	52.7 198.5	185.6 201.0	185.7 217.0	- ex shipping		equiv.	-	315.7	294.5	29
1 U.G. A33813	Maili	2.5	0.4	196.5	201.0	217.0	C1: Operating Cash Cost = (a)	\$A/t 6		-	390	390	
Short Term Borrow ings	A\$m						- ex shipping	\$A/t 6 \$A/t 6		-	370 390	370 390	
Other	A\$m A\$m	0.6	0.2	0.3	0.6	2.0	(a) + Royalty = (b) C2: (a) + depreciation & amortication			-	390 551	390 456	
Otner Total Curr. Liabilities	A\$m A\$m	0.6	0.2	0.3	0.6	2.0	C2: (a) + depreciation & amortisation				551 4,097	456 457	
Long Term Borrowings	A\$m	-	0.2	121.0	103.7	86.4	(a) + actual cash for development C3: (c) + Royalty	= (d) \$A/16			4,097 551	457	
Other	A\$m	-	-	121.0	103.1		C3: (c) + Royalty (d) + Royalty	\$A/t 6		-	4,097	456 457	
Total Non-Curr. Liabil.	A\$m		-	121.0	103.7	86.4	C1: Operating Cash Cost = (a)		equiv.		291	296	
Total Liabilities	A\$m	0.6	0.2	121.3	104.3	88.5	- ex shipping (mine gate)		equiv.		276	281	
Net Assets	A\$m	1.8	6.2	77.3	96.6	128.5							
Net Debt	A\$m	-2.2	-2.3	-24.8	91.4	67.1							
nd / nd + e		607.3%	-59.1%	-47.4%	48.6%	34.3%	Price Assumptions	Unit		Jun 20	Jun 21	Jun 22	Ju
Cashflow	Unit	30 Jun 18	30 Jun 19	30 Jun 20	30 Jun 21	30 Jun 22	AUDUSD	A\$/U	S\$	0.73	0.75	0.76	
Operating Cashflow	A\$m	-6.2	-5.5	-6.5	11.3	53.8	Potash (SOP)	US\$/t		620	620	620	
Income Tax Paid	A\$m	0.0	0.0	0.0	0.0	-13.7	NaCl (industrial)	US\$/t		90	90	90	
Interest & Other	A\$m	0.0	0.1	-0.2	-3.5	-5.8	NaCl (de-icing)	US\$/t		60	60	60	
Operating Activities	A\$m	-6.1	-5.4	-6.7	7.8	34.3	Hedging			Jun 20	Jun 21	Jun 22	Ju
							Hedges maturing?			No	No	No	
Property, Plant & Equip.	A\$m	-0.1	0.0	-45.0	-137.0	-8.0	Sensitivity Analysis						
Exploration and Devel.	A\$m	0.0	-4.1	-5.0	-2.0	-2.0				'	Valuation		
Other	A\$m	0.0	0.0	0.0	0.0	0.0	Base Case				0.33		
Investment Activities	A\$m	-0.1	-4.1	-50.0	-139.0	-10.0	Spot Prices			0.	.31 (-8.2%)		
						45.5	Spot USD/AUD 0.70, SOP US\$486/t	t.					
Borrowings	A\$m	0.0	0.0	121.0	-17.3	-17.3	AUDUSD +/10%				3 (-22.7% /		
Equity or "tbc capital"	A\$m	6.9	9.6	79.2	15.0	0.0	SOP +/10%				5 (26.1% / -:	,	
Dividends Paid	A\$m	0.0	0.0	0.0	0.0	0.0	Production +/10%				5 (25.5% / -:		
Financing Activities	A\$m	6.4	9.6	200.2	-2.3	-17.3	Operating Costs +/10%			0.30 / 0.3	7 (-11.1% /	11.1%)	
	A \$		0.4	142 5	_422 E	7.0	Unpaid Capital			No. (m)	¢m.	Avarries	9/ 0=-1
Not Cachfless	A\$m	0.2	0.1	143.5	-133.5	7.0	Year Expires			No. (m)	<u>\$m</u>		% ord 0%
Net Cashflow	Unit	30 Jun 18	30 Jun 19	30 Jun 20	30 Jun 21	30 Jun 22	30-Jun-19 30-Jun-20			0.0 48.3	0.0 9.7	0.0 0.2	0% 14%
Net Cashflow		30 Jun 18 3					30-Jun-20 30-Jun-21			48.3 9.4		0.2	14% 3%
Shares		.504	424 364	1,084	1,184	1,184	30-Jun-21 30-Jun-22			9.4 49.1	1.4 6.0	0.2	14%
Shares Ordinary Shares - End	m		304	754 686	1,134	1,184	TOTAL			106.8	17.2	0.16	30%
Shares Ordinary Shares - End Ordinary Shares - Weighted	m m	263	200		1,066	1,116	IOIAL			100.0	17.2	0.10	30%
Shares Ordinary Shares - End Ordinary Shares - Weighted	m		296	000			Share Price Valuation (NAV)			Picked	Est. A\$m	For	t. A\$/sI
Shares Ordinary Shares - End Ordinary Shares - Weighted Diluted Shares - Weighted	m m m	263 194			30 Jun 21.	30 Jun 22						ES	0.38
Shares Ordinary Shares - End Ordinary Shares - Weighted Diluted Shares - Weighted Ratio Analysis	m m m	263 194 30 Jun 18	30 Jun 19	30 Jun 20		30 Jun 22		disc rate of 1	2%)	Makeu			
Shares Ordinary Shares - End Ordinary Shares - Weighted Diluted Shares - Weighted Ratio Analysis Cashflow Per Share	m m m Unit A\$ cps	263 194 30 Jun 18 3 -2.3	30 Jun 19 3	30 Jun 20 -0.9	0.7	2.9	100% Lake Wells (pre-tax NAV at o	disc. rate of 1	2%)	Nakeu	474.6		
Shares Ordinary Shares - End Ordinary Shares - Weighted Diluted Shares - Weighted Ratio Analysis Cashflow Per Share Cashflow Multiple	m m m Unit A\$ cps	263 194 30 Jun 18 3 -2.3 -3.3	30 Jun 19 3 -1.5 -5.1	-0.9 -8.6	0.7 11.0	2.9 2.6	100% Lake Wells (pre-tax NAV at of Other Exploration	disc. rate of 1	2%)	покец	474.6 30.0		0.02
Shares Ordinary Shares - End Ordinary Shares - Weighted Diluted Shares - Weighted Ratio Analysis Cashflow Per Share Cashflow Multiple Earnings Per Share	m m m Unit A\$ cps x A\$ cps	263 194 30 Jun 18 3 -2.3 -3.3 -1.9	30 Jun 19 3 -1.5 -5.1 -1.4	-0.9 -8.6 -1.1	0.7 11.0 0.4	2.9 2.6 2.7	100% Lake Wells (pre-tax NAV at of Other Exploration Forwards	disc. rate of 1	2%)	Покод	474.6 30.0 0.0		0.02
Shares Ordinary Shares - End Ordinary Shares - Weighted Diluted Shares - Weighted Ratio Analysis Cashflow Per Share Cashflow Multiple Earnings Per Share Price to Earnings Ratio	m m m M Lnit A\$ cps x A\$ cps	263 194 30 Jun 18 3 -2.3 -3.3	30 Jun 19 3 -1.5 -5.1	-0.9 -8.6	0.7 11.0	2.9 2.6	100% Lake Wells (pre-tax NAV at o Other Exploration Forwards Corporate Overheads	disc. rate of 1	2%)	наке	474.6 30.0 0.0 -13.9		0.00
Shares Ordinary Shares - End Ordinary Shares - Weighted Diluted Shares - Weighted Ratio Analysis Cashflow Per Share Cashflow Multiple Earnings Per Share Price to Earnings Ratio Dividends Per Share	m m m M A\$ cps x A\$ cps x A\$ cps	263 194 30 Jun 18 3 -2.3 -3.3 -1.9 -4.0	-1.5 -5.1 -1.4 -5.3	-0.9 -8.6 -1.1 -7.0	0.7 11.0 0.4 19.6	2.9 2.6 2.7 2.8	100% Lake Wells (pre-tax NAV at o Other Exploration Forw ards Corporate Overheads Net Cash (Debt)	disc. rate of 1	2%)	Makeu	474.6 30.0 0.0 -13.9 3.4		0.00 0.00 -0.0
Shares Ordinary Shares - End Ordinary Shares - Weighted Diluted Shares - Weighted Ratio Analysis Cashflow Multiple Earnings Per Share Price to Earnings Ratio Dividends Per Share Dividends Per Share Dividend Yield	m m m M A\$ cps x A\$ cps x AUD	263 194 30 Jun 18 3 -2.3 -3.3 -1.9 -4.0 -	-1.5 -5.1 -1.4 -5.3 -	-0.9 -8.6 -1.1 -7.0 -	0.7 11.0 0.4 19.6 - 0.0%	2.9 2.6 2.7 2.8 - 0.0%	100% Lake Wells (pre-tax NAV at of Other Exploration Forwards Corporate Overheads Net Cash (Debt) Tax (NPV future liability)	disc. rate of 1	2%)	Nakeu	474.6 30.0 0.0 -13.9 3.4 -80.3		0.00 0.00 -0.0 0.00 -0.0
Shares Ordinary Shares - End Ordinary Shares - Weighted Diluted Shares - Weighted Ratto Analysis Cashflow Per Share Cashflow Multiple Earnings Per Share Price to Earnings Ratio Dividends Per Share Dividend Yield Net Debt / Net Debt + Equity	m m m M A\$ cps x A\$ cps x AUD %	263 194 30 Jun 18 3 -2.3 -3.3 -1.9 -4.0 - 0.0% 607%	30 Jun 19 3 -1.5 -5.1 -1.4 -5.3 - 0.0% -59%	-0.9 -8.6 -1.1 -7.0 - 0.0% -47%	0.7 11.0 0.4 19.6 - 0.0% 49%	2.9 2.6 2.7 2.8 - 0.0% 34%	100% Lake Wells (pre-tax NAV at of Other Exploration Frow ards Corporate Overheads Net Cash (Debt) Tax (NPV future liability) Options & Other Equity	disc. rate of 1	2%)	Makeu	474.6 30.0 0.0 -13.9 3.4 -80.3 0.0		0.00 -0.00 -0.00 -0.00
Shares Ordinary Shares - End Ordinary Shares - Weighted Diluted Shares - Weighted Batio Analysis Cashflow Per Share Cashflow Multiple Earnings Per Share Price to Earnings Ratio Dividends Per Share Dividend Yield Wel Debt / Net Debt + Equity Interest Cover	m m m m m m m m m m m m m m m m m m m	263 194 30 Jun 18 3 -2.3 -3.3 -1.9 -4.0 - 0.0% 607% 2697.8	30 Jun 19 3 -1.5 -5.1 -1.4 -5.3 - 0.0% -59% 43.4	-0.9 -8.6 -1.1 -7.0 - 0.0% -47% na	0.7 11.0 0.4 19.6 - 0.0% 49% 2.2	2.9 2.6 2.7 2.8 - 0.0% 34% 8.9	100% Lake Wells (pre-tax NAV at of Other Exploration Forwards Corporate Overheads Net Cash (Debt) Tax (NPV future liability)	disc. rate of 1	2%)	Покед	474.6 30.0 0.0 -13.9 3.4 -80.3		0.00 -0.00 -0.00 -0.00
Shares Ordinary Shares - End Ordinary Shares - Weighted Diluted Shares - Weighted Ratto Analysis Cashflow Per Share Cashflow Multiple Earnings Per Share Price to Earnings Ratio Dividends Per Share Dividend Yield Net Debt / Net Debt + Equity	m m m M A\$ cps x A\$ cps x AUD %	263 194 30 Jun 18 3 -2.3 -3.3 -1.9 -4.0 - 0.0% 607%	30 Jun 19 3 -1.5 -5.1 -1.4 -5.3 - 0.0% -59%	-0.9 -8.6 -1.1 -7.0 - 0.0% -47%	0.7 11.0 0.4 19.6 - 0.0% 49%	2.9 2.6 2.7 2.8 - 0.0% 34%	100% Lake Wells (pre-tax NAV at of Other Exploration Frow ards Corporate Overheads Net Cash (Debt) Tax (NPV future liability) Options & Other Equity	disc. rate of 1	2%)	ПЭКСС	474.6 30.0 0.0 -13.9 3.4 -80.3 0.0		0.02 0.00 -0.0 0.00 -0.0 0.00 0.33
Shares Ordinary Shares - End Ordinary Shares - Weighted Diluted Shares - Weighted Diluted Shares - Weighted Ratio Analysis Cashflow Per Share Cashflow Multiple Earnings Per Share Price to Earnings Ratio Dividends Per Share Dividends Per Share Dividend Vield Net Debt / Net Debt + Equity Interest Cover Return on Equity	m m m m m m m m m m m m m m m m m m m	263 194 30 Jun 18 3 -2.3 -3.3 -1.9 -4.0 - 0.0% 607% 2697.8	30 Jun 19 3 -1.5 -5.1 -1.4 -5.3 - 0.0% -59% 43.4	-0.9 -8.6 -1.1 -7.0 - 0.0% -47% na	0.7 11.0 0.4 19.6 - 0.0% 49% 2.2	2.9 2.6 2.7 2.8 - 0.0% 34% 8.9	100% Lake Wells (pre-tax NAV at of Other Exploration Frow ards Corporate Overheads Net Cash (Debt) Tax (NPV future liability) Options & Other Equity	disc. rate of 1	2%)	ПЭКСС	474.6 30.0 0.0 -13.9 3.4 -80.3 0.0 413.7	ast Undated	0.02 0.00 -0.0 0.00 -0.00 0.00
Shares Ordinary Shares - End Ordinary Shares - Weighted Diluted Shares - Weighted Diluted Shares - Weighted Ratio Analysis Cashflow Per Share Cashflow Multiple Earnings Per Share Price to Earnings Ratio Dividends Per Share Dividends Per Share Dividends Per Share Covidend Yield Wet Debt / Net Debt + Equity Interest Cover	m m m m m m m m m m m m m m m m m m m	263 194 30 Jun 18 3 -2.3 -3.3 -1.9 -4.0 - 0.0% 607% 2697.8	30 Jun 19 3 -1.5 -5.1 -1.4 -5.3 - 0.0% -59% 43.4	-0.9 -8.6 -1.1 -7.0 - 0.0% -47% na	0.7 11.0 0.4 19.6 - 0.0% 49% 2.2	2.9 2.6 2.7 2.8 - 0.0% 34% 8.9	100% Lake Wells (pre-tax NAV at of Other Exploration Frow ards Corporate Overheads Net Cash (Debt) Tax (NPV future liability) Options & Other Equity	disc. rate of 1	2%)	Nanco	474.6 30.0 0.0 -13.9 3.4 -80.3 0.0 413.7	ast Updated:	0.02 0.00 -0.0 0.00 -0.0 0.00

# LAKE WELLS POTASH PROJECT

## SOP PRODUCTION, ONLY MODEST CAPEX HURDLE

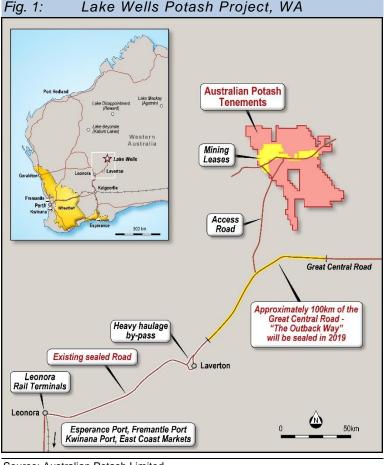
Project located ~500km NE of Kalgoorlie, WA

The Lake Wells Potash Project is located ~180km north-east of Laverton, ~500km north-east of Kalgoorlie in WA. The project area consists of tenure, which covers ~2,000km² and now includes granted Mining Leases spanning some 30,000Ha over the Lake Wells playa and palaeochannel system.

APC has 100% ownership and all potash rights. Access to the project is via the Great Central (~90km sealed/unsealed road) and Lake Wells (~90km unsealed) roads. The project is located ~280km from a bulk rail terminal at Leonora. The climate for the project area is highly conducive to evaporation and thus a solar salt operation.

Australia currently imports 100% of its potassium fertiliser requirements, and the low chloride and high sulphate content of SOP makes it an ideal and preferred form of potassium (fertiliser) for Australian farmers. SOP attracts a superior price to muriate of potash (MOP), and is underpinned by limited brine supply (only 4 evaporative operations globally) and increasing demand (forecast growth of 4%). Australia currently has no potash production, but appears well endowed with resources across a number of its salt lake systems.

Potash as a high value bulk commodity which requires access to infrastructure



Brine SOP projects
generally occupy the
lower end of
production cost curve
and have lower capital
hurdles then rock
potash projects

Source: Australian Potash Limited

APC released a maiden SOP resource for its Lake Wells Project in late June 2016, and upgraded the resource estimate for the Scoping Study (March 2017). The total resource estimate using specific yield provides **14.7Mt of SOP grading 7,896mg/L SOP**. Indicated resources make up 12.7Mt (86%) of total resources, with three main hydrogeological zones (Western High Grade, Eastern and Southern Zones). The Southern Zone is currently data constrained and as such classified as Inferred.

The Scoping
development study
was led by NovoPro
(an expert potash
consultant from
Canada)

The Scoping Study
highlighted potential
for a long-life, staged
production of 150ktpa
to 300ktpa of SOP for
initial capital costs of
A\$175M

APC proposes to develop the Lake Wells Potash Project in two stages.

<u>Stage 1</u> development consists of 35 bores extracting brine to evaporation ponds, simple processing to crystallise the SOP for transport to markets. The Company plans to extract the SOP-rich brine from a network of bores positioned along the central parts of the palaeochannel.

The processing plant has been designed in such a manner to include a muriate of potash (MOP) to SOP conversion circuit, which increases overall SOP production. The MOP to SOP conversion is using the excess naturally occurring sulphate in the brines, and involves no sulphuric acid use (not the Mannheim Process).

The initial production rate of 150ktpa of SOP (includes ~42ktpa of imported MOP to SOP conversion for 50ktpa SOP). Stage 1 opex is estimated to be A\$368/t SOP, which at the SOP prices (US\$612/t/A\$795/t) used in the Scoping Study provides capital payback in less than 3 years. Pre-production capex is estimated to be A\$175M.

**Stage 2** expansion in year 5 duplicates Stage 1 to double production to 300kpta SOP (includes 100ktpa of imported MOP conversion). After expansion, opex improves to A\$339/t SOP, with LOM sustaining capex expected to be less than A\$3Mpa.

Stage 2 capex of A\$163M (includes a contingency of A\$23M), is expected to be funded largely through internal cash flows. Over the initial 20 year mine life and assuming Stage 2 development for 300ktpa SOP, the borefield will produce a total of 3.3Mt of SOP.

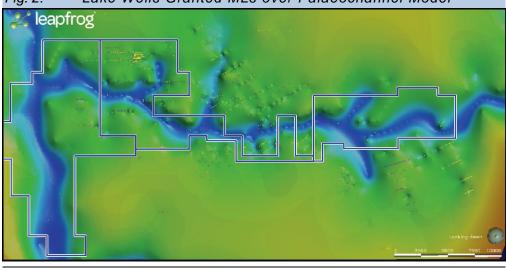


Fig. 2: Lake Wells Granted MLs over Palaeochannel Model

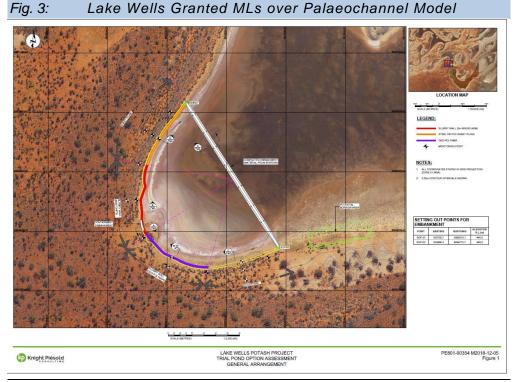
Source: Australian Potash Limited

APC recently commenced with activities to assess the optimal commercial-scale pond construction technique for the project. The Company is planning on using un-lined ponds on the playa lake (Lake Wells), taking advantage of a surface clay layer to seal the base of the ponds and with this work assessing (economically and technically) the best wall construction technique to seal the walls of the ponds.

A pond wall barrier to minimise lateral seepage is required, with APC now testing four different construction techniques (natural material on-site, a steel sheet pile, a bentonite clay layer mixture and a geo-polymer liner). The construction of the trial ponds are expected to be completed in June, upon which time the test ponds will be filled with brine and seepage monitored. The important design information will feed into the DFS, with the cheapest and most efficient wall construction technique adopted.

APC recently commenced with activities to assess the optimal commercial-scale pond construction technique for the project

4 different
construction
techniques – natural
material on-site, a
steel sheet pile, a
bentonite clay layer
mixture and a geopolymer liner – are
currently being tested



Source: Australian Potash Limited

APC has an envious position of having a deep palaeochannel (some 3-4 times deeper than peers) which is expected to make the estimation of reserves, and the abstraction of the brine easier. The other field work required prior to the DFS release is the test-pumping program on the production wells.

Five production wells have thus far been installed with another 2-3 bores due to be installed as part of the current work program. It should be noted that ~30% of the Stage 1 bore-field is now expected to be production-ready at the completion of the DFS.

Once developed, the Lake Wells is expected to be serviced by some 35 bores, enabling the production of 150ktpa of SOP (Stage 1), scaling up to 75 bores for production of 300ktpa of SOP (Stage 2). An update on the bore installation drilling is expected in the coming weeks.

APC expects to release the DFS on the project development in H2 CY19, which will include a maiden reserve.

Lake Wells DFS due for release in H2 CY19

## LAKE WELLS GOLD PROJECT

## SBM EARN-IN PROVIDES FUNDING FOR GOLD

Key gold ground is also situated ~60km NW of the +6Moz Gruyere gold project (under construction) and spans a 65km structural zone In October 2018, APC and SBM entered into an earn-in JV over ground considered prospective for gold mineralisation at the Lake Wells project area, within the Yamarna Belt. The key gold ground is situated ~60km north-west of Gold Roads (GOR)/Goldfieds +6Moz Gruyere gold project (now under construction) and spans a 65km structural zone.

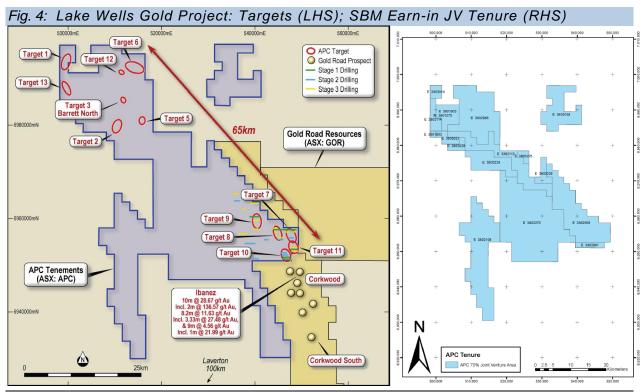
Under the terms of the JV, SBM paid APC A\$1.25M in cash and plans to spend a minimum of A\$1.75M on gold exploration within 12 months. After which, SBM can elect to earn a 70% interest through further expenditure of A\$3.5M on exploration over the next 24 months and pay a further A\$0.5M to APC (for prior spend). APC retains full 100% potash rights over the ground, and once the earn-in has been reached by SBM, retains a free-carried 30% interest through to completion of a BFS.

The earn-in JV appears to be a sensible approach for APC, attracting a good quality partner to advance the gold prospects, while they remain focused on the delivery of the Lake Wells SOP DFS.

During CY17, APC commissioned CSA Global and Dr Scott Halley to conduct a structural interpretation and targeting exercise over the project area. This was largely instigated after neighbour GOR released some significant gold results in close proximity to APC's ground. Of particular interest was GOR's reported gold intersections of 10m @ 28.8 g/t Au and 8.2m @ 11.6g/t Au from Corkwood/Ibanez, which is only 2km south-east of APC's tenement holding.

During the current quarter (JunQ), a 500 hole aircore (AC) drill program for ~23,500m commenced testing some proirity 13 targets, first results are expected in the coming weeks. All work is being funded by SBM.

The earn-in JV
appears to be a
sensible approach for
APC, attracting a good
quality partner to
advance the gold
prospects, while they
remain focused on the
delivery of the Lake
Wells SOP DFS



Source: Australian Potash Limited

# VALUATION AND PRICE TARGET

## POTENTIAL FOR FIRST SOP MID-CY21

Our sum of parts valuation for APC is based largely on information supplied in the Scoping Study (SS). We assume staged production (**Stage 1**: 150ktpa 1-5 years and **Stage 2**: 300ktpa 6-20 years), with a similar capex and opex profile as per the SS.

Latest APC NAV and Price Target

We assume existing infrastructure of roads and rail can be accessed and SOP prices of US\$620/t. We assume start-up capex of ~A\$180m, with some additional working capital and funding through a 60% debt and 40% equity mix. We have now adjusted timing for first production to mid-CY21. We will update our assumptions upon release of the DFS. Our modelling also dilutes for additional equity required in the near-term.

Our price target for APC is weighted for the different scenarios (as shown below).

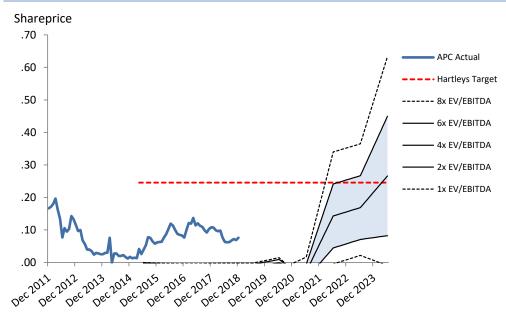
Updated 12-month price target of 25cps (from 26cps)

Fig. 5: APC Price Target M	ethodology		
Price Target Methodology	Weighting	Spot	12 mth out
NPV base case (DR 12%), debt/equity funded 60	/40 40%	\$0.33	\$0.36
NPV base case (DR 10%), debt/equity funded 60	/40 15%	\$0.41	\$0.44
Cash backing	35%	\$0.01	\$0.01
NPV spot prices (DR 12%) debt/equity funded 60	/40 10%	\$0.31	\$0.33
Risk weighted composite		\$0.23	
12 Months Price Target		\$0.25	
Shareprice - Last		\$0.076	
12 mth total return (% to 12mth target + divi	dend)	225%	

Source: Hartleys Estimates

## **EV/EBITDA BANDS**

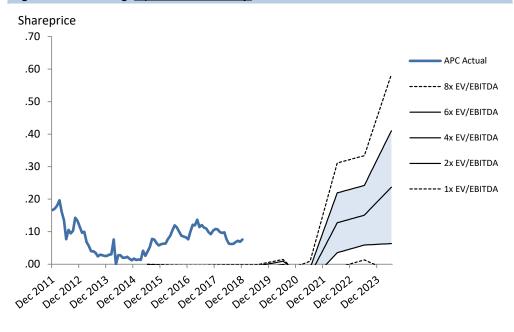
Fig. 6: Using <u>Hartleys Base Case Commodity</u> Forecasts



Assuming staged SOP production

Source: Hartleys Estimates

Fig. 7: Using Spot Commodity Prices



Source: Hartleys Estimates

# **RISKS**

Key risks for APC are funding, and commodity prices. Hence we view APC as high risk.

Fig. 8: Key assu	imptions and risks	for valuation	
Assumption	Risk of not realising assumption	Risk to valuation if assumption is incorrect	Comment
Model parameters for our APC valuation and price target	Med	Meaningful	We have made a number of assumptions in our APC valuation, based largely on the Scoping Study, which will be preceded by more accurate development studies. APC has no production history. Any changes to our assumptions have both upside and downside risks.
Favourable commodity prices	Low	Meaningful	APC remains sensitive to changes in commodity (potash) prices, exchange rates and market sentiment. Though with no current operations, direct impact from commodity prices is limited. We assume potash prices will remain stable into the near-term, which is open to speculation.
Funded for ongoing exploration and studies	Med	Moderate	APC's cash position is just over A\$3M. As an explorer with no current production assets, ongoing funding will be required. We assume development studies will be progressed.
Conclusion	We have r	made significant assumpti	ions but believe these are achievable.

Source: Hartleys Research

## HARTLEYS CORPORATE DIRECTORY

### Research

Trent Barnett	Head of Research	+61 8 9268 3052
Mike Millikan	Resources Analyst	+61 8 9268 2805
John Macdonald	Resources Analyst	+61 8 9268 3020
Paul Howard	Resources Analyst	+61 8 9268 3045
Aiden Bradley	Research Analyst	+61 8 9268 2876
Oliver Stevens	Research Analyst	+61 8 9268 2879
Michael Scantlebury	Junior Analyst	+61 8 9268 2837
Janine Bell	Research Assistant	+61 8 9268 2831

### **Corporate Finance**

Dale Bryan	Director & Head of	+61 8 9268 2829

Corp Fin.

Richard Simpson Director +61 8 9268 2824 Ben Crossing Director +61 8 9268 3047 Ben Wale Director +61 8 9268 3055 Stephen Kite Director +61 8 9268 3050 Scott Weir Director +61 8 9268 2821 Scott Stephens Associate Director +61 8 9268 2819 Rhys Simpson Associate Director +61 8 9268 2851 Michael Brown Executive +61 8 9268 2822

## **Registered Office**

## Level 6, 141 St Georges TcePostal Address:

PerthWA 6000 GPO Box 2777

Australia Perth WA 6001

PH:+61 8 9268 2888 FX: +61 8 9268 2800

www.hartleys.com.au info@hartleys.com.au

Note: personal email addresses of company employees are

structured in the following

manner:firstname.lastname@hartleys.com.au

## **Hartleys Recommendation Categories**

Buy Share price appreciation anticipated.

Accumulate Share price appreciation anticipated but the risk/reward is not as attractive as a "Buy". Alternatively, for the share price to rise it may be contingent on the outcome of an uncertain or distant event. Analyst will often indicate a

price level at which it may become a "Buy".

Neutral Take no action. Upside & downside risk/reward is evenly

balanced.

Reduce / It is anticipated to be unlikely that there will be gains over Take profits the investment time horizon but there is a possibility of

some price weakness over that period.

Sell Significant price depreciation anticipated.

No Rating No recommendation.

Speculative Share price could be volatile. While it is anticipated that, Buy on a risk/reward basis, an investment is attractive, there

on a risk/reward basis, an investment is attractive, there is at least one identifiable risk that has a meaningful possibility of occurring, which, if it did occur, could lead to significant share price reduction. Consequently, the

investment is considered high risk.

### Institutional Sales

Carrick Ryan	+61 8 9268 2864
Justin Stewart	+61 8 9268 3062
Simon van den Berg	+61 8 9268 2867
Digby Gilmour	+61 8 9268 2814
Jayme Walsh	+61 8 9268 2828
Veronika Tkacova	+61 8 9268 3053

Veronika Tkacova	+61 8 9268 3053
Wealth Management	
Nicola Bond	+61 8 9268 2840
Bradley Booth	+61 8 9268 2873
Adrian Brant	+61 8 9268 3065
Nathan Bray	+61 8 9268 2874
Sven Burrell	+61 8 9268 2847
Simon Casey	+61 8 9268 2875
Tony Chien	+61 8 9268 2850
Tim Cottee	+61 8 9268 3064
David Cross	+61 8 9268 2860
Nicholas Draper	+61 8 9268 2883
John Featherby	+61 8 9268 2811
Ben Fleay	+61 8 9268 2844
James Gatti	+61 8 9268 3025
John Goodlad	+61 8 9268 2890
Andrew Gribble	+61 8 9268 2842
David Hainsworth	+61 8 9268 3040
Murray Jacob	+61 8 9268 2892
Jack Johns	+61 8 9268 3048
Will Langley	+61 8 9268 3060
Gavin Lehmann	+61 8 9268 2895
Shane Lehmann	+61 8 9268 2897
Steven Loxley	+61 8 9268 2857
Andrew Macnaughtan	+61 8 9268 2898
Scott Metcalf	+61 8 9268 2807
David Michael	+61 8 9268 2835
Jamie Moullin	+61 8 9268 2856
Chris Munro	+61 8 9268 2858
Michael Munro	+61 8 9268 2820
lan Parker	+61 8 9268 2810
Matthew Parker	+61 8 9268 2826
Charlie Ransom	+61 8 9268 2868
Heath Ryan	+61 8 9268 3053
David Smyth	+61 8 9268 2839
Greg Soudure	+61 8 9268 2834
Sonya Soudure	+61 8 9268 2865

+61 8 9268 2855

+61 8 9268 3041

Dirk Vanderstruvf

Samuel Williams

#### Disclaimer/Disclosure

The author of this publication, Hartleys Limited ABN 33 104 195 057 ("Hartleys"), its Directors and their Associates from time to time may hold shares in the security/securities mentioned in this Research document and therefore may benefit from any increase in the price of those securities. Hartleys and its Advisers may earn brokerage, fees, commissions, other benefits or advantages as a result of a transaction arising from any advice mentioned in publications to clients.

Hartleys has completed a capital raising in the past 12 months for Australian Potash Limited ("APC") for which it has earned gross fees. Hartleys has assisted in the completion of a capital raisings in the past 12 months for APC for which is has earned gross fees.

Any financial product advice contained in this document is unsolicited general information only. Do not act on this advice without first consulting your investment adviser to determine whether the advice is appropriate for your investment objectives, financial situation and particular needs. Hartleys believes that any information or advice (including any financial product advice) contained in this document is accurate when issued. Hartleys however, does not warrant its accuracy or reliability. Hartleys, its officers, agents and employees exclude all liability whatsoever, in negligence or otherwise, for any loss or damage relating to this document to the full extent permitted by law.