

Australian Potash Limited

Bulk Materials - Developer/Explorer

15 March 2021

Rating
SPECULATIVE BUY

Price Target
A\$0.30

APC-ASX

Price
A\$0.17

Market Data

52-Week Range (A\$) :	0.05 - 0.20
Avg Daily Vol (M) :	0.9
Market Cap (A\$M) :	93.3
Shares Out. (M) :	548.6
Dividend /Shr (A\$) :	0.00
Dividend Yield (%) :	0.0
Net Debt (Cash) (A\$M) :	(4.5)
Enterprise Value (A\$M) :	88.5
Net Cash (A\$M) :	4.5

FYE Jun	2020A	2021E	2022E	2023E
Sales (A\$M)	0.2	0.0	0.0	0.0
EBITDA (A\$M)	(0.7)	(1.8)	(1.8)	(1.8)
Net Debt (Cash) (A\$M)	(3)	(76)	14	153



Source: FactSet

Priced as of close of business 12 March 2021

Australian Potash Limited (APC) is an ASX-listed Sulphate of Potash (SOP) developer, focused on advancing its 100% owned, 150ktpa, Lake Wells SOP Project (LWSOP), located approximately 480km north-east of the Eastern Goldfields centre of Kalgoorlie.

Canaccord Genuity (Australia) Limited has received a fee as Joint Lead Manager to the Australian Potash Limited Capital Raising announced 2 November 2020.

James Bullen | Analyst | Canaccord Genuity (Australia) Ltd. | jbullen@cgf.com | +61.2.9263.2728
James Farr | Associate Analyst | Canaccord Genuity (Australia) Ltd. | jfarr@cgf.com | +61.2.9263.2714

Solar powered potash

Australian Potash Limited (APC) is an ASX-listed sulphate of potash (SOP) developer focused on advancing its 100% owned, 150ktpa, Lake Wells SOP Project (LWSOP), located approximately 480km north-east of the Eastern Goldfields centre of Kalgoorlie. APC is methodically closing in on a final investment decision for Lake Wells. With sector tailwinds, compelling thematic, NAIF support confirmed and front-end-engineering-deign (FEED) expected to be completed in the coming weeks, the project has momentum leading into a targeted final investment decision late in the MarQ'21.

We initiate coverage with a SPECULATIVE BUY and A\$0.30 DCF-based price target.

DFS highlights a low-cost long-life project...

LWSOP, located in one of the world's superior locations for solar evaporation operations, offers a low-cost, long-life development opportunity as the demand for premium grade fertiliser products like SOP continues to rise in Asia and the rest of the world. With a total measured drainable SOP resource of 18.1Mt, evaporated through sun and wind, APC aims to supply overseas and domestic markets with up to 150ktpa of SOP for at least the next 30 years. DFS results indicate life of mine (LOM) operating costs of US \$262/t, placing LWSOP in the first quartile of the SOP cost curve.

...which generates robust returns and clear ESG benefits...

APC estimates C1 cash costs (FOB) at A\$349/t, and we expect the project to generate operating EBITDA of ~A\$70m, an IRR of 21% and payback period of ~five years (assumes US\$575/t, 0.75 FX). APC has indicated that the breakeven is US\$280/t (albeit using an 8% discount rate). Given 70% of global SOP production is loss-making below US\$400/t, it seems unlikely to us that APC's breakeven will be tested.

Additionally, based on company analysis and assuming 87% renewable power penetration, the Lake Wells project will have ~66% less CO2 emissions than Manheim production.

...a view which is shared by NAIF

In a major milestone for APC, on 2 March the Northern Australia Infrastructure Facility (NAIF) made a positive investment decision for a \$140mn loan facility with a 17-year tenor following a comprehensive due diligence process. This sets a positive precedent for APC's negotiations for additional senior debt facilities with Export Finance Australia and commercial banks. Importantly, NAIF is taking on the tail risk of the project, with the facility being interest-only until other senior debt providers are paid back.

A positive backdrop for SOP

Food consumption is growing ahead of population growth due to a rising middle class, particularly in Asia. All up, the UN estimates that food production needs will increase by 70% by 2050 to fulfill the needs of the world population. With this food growth likely to be weighted toward chloride-sensitive crops like fruit and vegetables, and with arable land per capita falling, the case for premium fertiliser products like SOP (a 7.0mntpa market which is growing at 3-5%) has never been stronger, in our view.

Additionally, we note that agriculture fundamentals have continued to strengthen over the last six months, with the likes of corn +40% and soybeans +33%. This has created upwards pressure on fertiliser prices. While SOP demand is relatively inelastic, and consequently the NW Europe benchmark was flat, we do note that standard SOP pricing is currently US\$526/tonne which is modestly above our forecasts.

Upcoming potential catalysts

- Delivery of FEED outcomes for Lake Wells (we expect capacity to increase and cash costs to decrease, partially offset by higher capex).
- Debt funding approval from EFA and commercial banks.
- Final investment decision at Lake Wells.

Canaccord Genuity is the global capital markets group of Canaccord Genuity Group Inc. (CF : TSX)

The recommendations and opinions expressed in this research report accurately reflect the research analyst's personal, independent and objective views about any and all the companies and securities that are the subject of this report discussed herein.

For important information, please see the Important Disclosures beginning on page 24 of this document.

Figure 1: Financial summary

FY Jun 30	2019	2020	2021E	2022E	2023E	2019	2020	2021E	2022E	2023E	
PROFIT & LOSS (A\$mn)											
Revenue	0	0	0	0	0	KEY ASSUMPTIONS					
Operational Costs	0	0	0	0	0	NW Europe Standard SOP (US\$/t)	500	500	500	503	513
Royalty	0	0	0	0	0	A\$/US\$	0.72	0.67	0.75	0.75	0.75
Other Income	2	2	1	1	1	REALISED PRICES					
Business Devt & Expl	0	0	0	0	0	SOP (\$/tonne)	0.0	0.0	0.0	0.0	0.0
Corporate & Other	-1	-2	-2	-2	-2	PRODUCTION FORECASTS					
EBITDA	1	-1	-2	-2	-2	SOP (kt)	0	0	0	0	0
DD&A	0	0	0	0	0	Total (kt)	0	0	0	0	0
Other	0	0	0	0	0	RESERVES AND RESOURCES					
EBIT	1	-1	-2	-2	-2	Lake Wells Proved & Probable Reserve			3.6		Mt
Net Financing	0	0	0	0	-7	PER SHARE DATA					
NPBT	1	-1	-2	-2	-9	Average Shares (Diluted, M)	116	356	744	960	960
Tax	0	0	0	0	3	EOP Shares (Diluted, mn)	358	487	960	960	960
Normalised NPAT	1	-1	-2	-2	-7	Normalised EPS (A¢/sh)	1.2	-0.2	-0.2	-0.2	-0.7
Sig Items, Discon Ops & Mins	0	0	0	0	0	CF PS (A¢/sh)	-0.6	0.1	-0.3	-0.3	-1.0
Reported NPAT	1	-1	-2	-2	-7	FCF PS (A¢/sh)	-3.6	-1.1	-0.6	-9.4	-14.5
Effective income tax rate	0%	0%	0%	15%	30%	RATIOS					
CASHFLOW (A\$mn)						Dividend Yield	0%	0%	0%	0%	0%
Cash receipts	0	0	0	0	0	PE	13.9	n/a	n/a	n/a	n/a
Payments to suppliers	-2	-2	-3	-3	-3	PCF (Debt Adj)	n/a	163.7	n/a	n/a	n/a
Interest received	0	0	0	0	0	EV / EBITDA	41.3	n/a	n/a	n/a	n/a
Interest paid	0	0	0	0	-7	Gearing (ND / ND + E)	n/a	n/a	n/a	14%	67%
Other	1	3	0	0	0	Net Debt / EBITDA	-1.4x	4.9x	42x	-8x	-85x
Operating Cashflow	-1	0	-2	-3	-10	Interest Cover	0.0x	0.0x	0.0x	0.0x	-0.2x
Payments for PP&E	0	0	0	0	0	ROE (Reported Profit / Av Equity)	47%	n/a	n/a	n/a	n/a
Payments for Development	0	0	0	-85	-127	ROIC	35%	n/a	n/a	n/a	n/a
Payments for Exploration	-3	-5	-3	-3	-3	ROACE	33%	n/a	n/a	n/a	n/a
Asset Sales / (Purchases)	0	0	0	0	0	FCF Yield	-21%	-7%	-4%	-55%	-85%
Other	0	0	1	1	1	DIVIDEND AND FRANKING					
Investing Cashflow	-3	-4	-2	-87	-129	Dividend (A¢/sh)	0	0	0	0	0
Share Issuance / (Buyback)	4	6	77	0	0	Payout ratio	0%	0%	0%	0%	0%
Drawdown / (Repayment) of Debt	0	0	0	64	139	Franking Balance (A\$mn)	0	0	0	0	0
Dividends	0	0	0	0	0	VALUATION					
Other	0	0	0	0	0	Lake Wells	Risked	Unrisked			
Financing Cashflow	4	5	77	64	139	EV adjustments	0.20	0.26			
Surplus / Defecit	0	1	72	-26	0	Exploration	0.08	0.08			
BALANCE SHEET (A\$mn)						Exploration	0.02	0.02			
Current Assets	4	4	76	50	50	TOTAL	0.30	0.36			
Non-Current Assets	5	10	13	101	230	PREMIUM/(DISCOUNT)	0.0				
Total Assets	9	13	88	150	280	PRICE TARGET	0.30				
Current Liabilities	3	2	2	2	2						
Non-Current Liabilities	0	0	0	64	203						
Total Liabilities	3	2	2	66	205						
Net Assets	6	11	86	84	75						
Total Cash	2	3	76	50	50						
Total Debt	0	0	0	64	203						
Net Debt	-2	-3	-76	14	153						

Source: Company reports, Canaccord Genuity estimates

Table of contents

Investment thesis	4
Valuation summary	5
Lake Wells SOP project overview	7
Low capex/opex	12
Peer comparisons	15
Corporate and finance	17
Appendix 1. Sulphate of potash market	18
Appendix 2. Board and management	21
Appendix 3. Investment risks	23

Investment thesis

Australian Potash Limited (APC) is an ASX-listed SOP developer focused on advancing its 100% owned, 150ktpa, Lake Wells SOP Project (LWSOP), located ~480km north-east of the Eastern Goldfields centre of Kalgoorlie. With ideal evaporation rates and low annual rainfall, we believe the LWSOP is located in one of the world's premium locations for solar evaporation operations. In August 2019 the company completed its definitive feasibility study, which highlighted a robust long-life project capable of delivering material volumes into a growing SOP market. With a JORC compliant Mineral Resource of 18.1Mt drainable SOP, evaporated through sun and wind, APC will look to supply both overseas and domestic markets with up to 150ktpa of SOP for at least the next 30 years. In addition to LWSOP, APC's project portfolio comprises the Lake Wells Gold Project (subject to a 70% Earn-Out and JV Agreement with St Barbara Mines), the gold and base metals prospective Laverton Downs Project, and the Lake Darlot Potash project.

We initiate coverage of APC with a SPECULATIVE BUY rating and \$0.30 price target.

A methodical and considered approach...

APC commenced its studies on LWSOP in early 2015, delivered its maiden resource in mid-2016, completed first "long-term" pump tests in late 2017, delivered its definitive feasibility study (DFS) in mid-2019 and received full environmental approval in early 2021. All up the company has spent ~\$25mn to date progressing the project towards a final investment decision (FID).

The company is currently in the process of finalising its front-end-engineering-design work with results expected in the coming weeks. While we expect capex to increase as a result of this work (renewable power, growth capex) we expect this to be offset by higher capacity and lower opex forecasts.

...with a lower cost of funding

The Northern Australia Infrastructure Facility (NAIF) commenced formal due diligence on LWSOP in April 2020 and approved a \$140mn debt facility in March 2021. The facility will have a commercial interest rate, but benefits from a 17-year tenor and will be interest only until all other senior debt providers are paid. This is a large vote of confidence in the project and bodes well, in our view, for a positive decision lending decision by Export Finance Australia (due diligence commenced in October 2020) and commercial banks.

Offtake locked in...

APC has locked in offtake for 150ktpa via five binding term sheets which include take-or-pay provisions and a level of price protection. The agreements cover all main geographies and are with solid counterparties (Redox, Migao, Mitsui and Helm).

...a final investment decision targeted for end MarQ'21...

While the MarQ'21 target for FID is aggressive in our view, and we would be unsurprised by a small delay, the company has clearly achieved a number of milestones in a relatively short space of time. Critical path items to FID include EPC award and credit approval from all senior lenders.

...and increased interest in Australian SOP developments

In light of increasing demand (4.6% CAGR for potash over six years) and the challenges confronting: 1) Manheim producers (higher input costs); 2) Eritrean/Ethiopian developments (ICL withdrawal); and 3) other high profile projects such as Sirius Minerals' mine, it is perhaps unsurprising that simple, organic processes in an OECD country are garnering increased attention from the likes of K+S, Mitsubishi, Mitsui, Sinofert and Migao.

Valuation summary

We have based our \$0.30 valuation for APC on a risked DCF analysis of the Lake Wells SOP project (WACC 8.5%), plus nominal exploration value, less corporate costs, etc. Included within our valuation is an assumed \$70mn equity raising at \$0.17ps for the development of Lake Wells.

Figure 2: Our sum-of the parts valuation for APC

Asset	Equity %	Net Capacity ktpa	NPV A\$m	Risking %	Risked NPV A\$m	Risked NPV A\$ps
PRODUCTION ASSETS		0	0	0%	0.0	0.00
Lake Wells		150	250.9	75%	188.2	0.20
DEVELOPMENT ASSETS		150			188.2	0.20
RESEOURCES		0			0.0	0.00
Lake Darlot, Lake Wells Gold					20.0	0.02
EXPLORATION		0			0.0	0.02
Net Debt, Balance sheet adj. & corp. overhead						0.08
Premium / (Discount)						0.00
Price Target						0.30

Source: Company reports, Canaccord Genuity estimates

The valuation methodology for each segment is described in further detail below.

Lake Wells Potash Project (LWSOP)

APC completed its DFS in August 2019. This has formed a basis for our valuation modelling but it is notable that we have taken a more conservative view on capex (CG 13% higher than DFS), WACC, forex, SOP pricing and start-up timing (see Figure 7 for a comparison of CG assumptions versus the DFS). We expect to update this valuation work when the results of the FEED study are available.

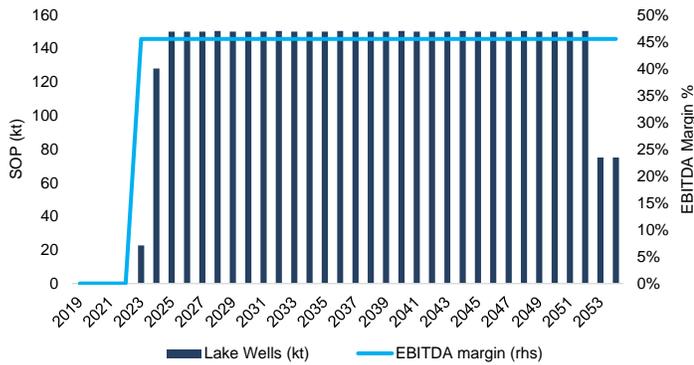
We have used a discount rate of 8.5% and a risk weighting of 75% to derive our DCF valuation of \$0.30. With the 75% risk weighting being used to reflect additional uncertainties around timing, funding and capital requirements.

Key modelling assumptions:

- Upfront capex of \$235mn.
- Cash costs of \$385/t.
- Forex of 0.75 USD/AUD.
- Standard SOP pricing of US\$500/t.
- Price premium of 15% for Lake Wells product to account for 53% K, <1.0% insolubles and granulation.
- First production in 2H CY23 and a 30year mine life.

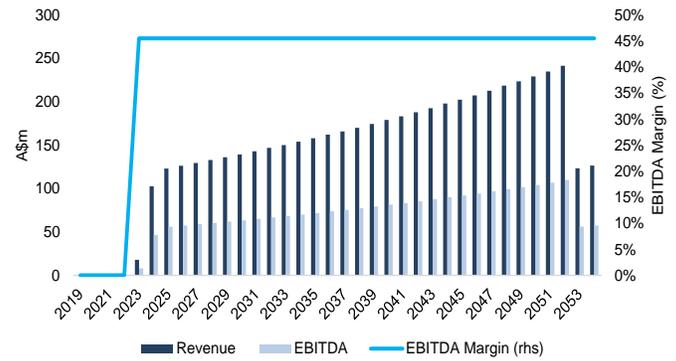
Figure 3 and Figure 4 below illustrate our assumed production profile at Lake Wells, along with the modelled revenue and EBITDA profile out to 2054.

Figure 3: CGe LWSOP SOP production profile



Source: Company reports, Canaccord Genuity estimates

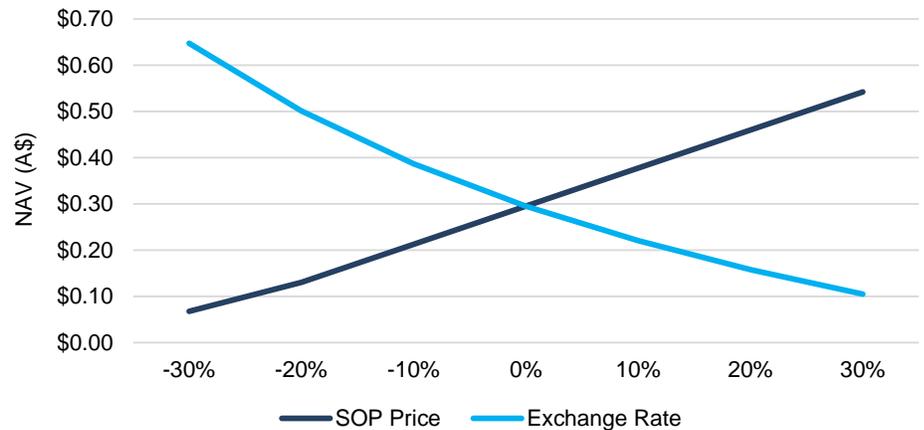
Figure 4: CGe LWSOP revenue and EBITDA profile



Source: Company reports, Canaccord Genuity estimates

Key sensitivities to our valuation relate to SOP and currency fluctuations as highlighted below.

Figure 5: Risked valuation sensitivity – SOP price, USD:AUD



Source: Company reports, Canaccord Genuity estimates

We have utilised a relatively generic 8.5% WACC for our DCF analysis; sensitivity analysis is presented in Figure 6.

Figure 6: Risked valuation sensitivity to cost of funding using 65:35 debt

	\$/ps	Cost of Equity					
		9%	10%	11%	12%	13%	14%
Cost of Debt	4%	0.41	0.38	0.35	0.33	0.30	0.28
	5%	0.40	0.37	0.34	0.31	0.29	0.27
	6%	0.38	0.35	0.32	0.30	0.28	0.26
	7%	0.36	0.33	0.31	0.29	0.27	0.25
	8%	0.34	0.32	0.30	0.28	0.26	0.24
	9%	0.33	0.31	0.28	0.26	0.24	0.22

Source: Company reports, Canaccord Genuity estimates

Lake Wells SOP project overview

The LWSOP is located approximately 480km north-east of the Eastern Goldfields centre of Kalgoorlie, roughly 180km north-east of Laverton. With extremely high evaporation rates and low annual rainfall, we believe the LOSP is located in one of the world's premium locations for solar evaporation operations. With a measured resource of 18.1Mt SOP, APC plans to develop the project to produce 100ktpa of SOP via the solar evaporation of brine, and another 50ktpa of SOP through the conversion of muriate of potash (MOP). The majority of the SOP will then be bulk packaged at the LWSOP site and trucked via the Great Central Road, where the product will be packed at the Geraldton Port and exported to overseas markets. A smaller portion of the product will be bagged and sent to Fremantle Port.

In August 2019, APC released a definitive feasibility study (DFS) for the LWSOP, with results indicating a long-life development opportunity. The study was built on a scoping study that was released in early 2017. Key aspects released in the DFS include:

- NPV₈ post-tax A\$441m.
- IRR post-tax 21%.
- EBITDA A\$114m (average).
- Capex A\$208m.
- Cash costs US\$262/t (average).
- 30-year mine life.

Key inputs in our modelled development scenario are outlined in Figure 7. Our assumptions are largely in line with the recent DFS, albeit more conservative with regards to capex, start-up timing, forex and SOP pricing. FEED results are expected in the near term and will provide us with an opportunity to refine our modelling assumptions.

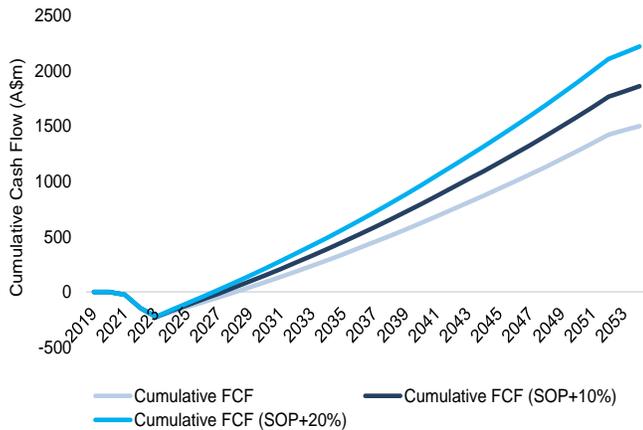
Figure 7: Scoping study versus DFS versus CG forecasts

	SS (2 stage)	DFS	CG forecast
Mine life once ramped up	20 years	30 years	30 years
upfront capex	A\$498m	A\$208m	A\$235m
Production rate SOP	300ktpa	150ktpa	150ktpa
Cash costs (average)	US\$264/t	US\$262/t	US\$262/t
LT SOP price (FOB)	US\$612/t	US\$614/t	US\$575/t
Forex	0.77	0.67	0.75
EBITDA (steady state)		A\$114m	A\$70m

Source: Company reports, Canaccord Genuity estimates

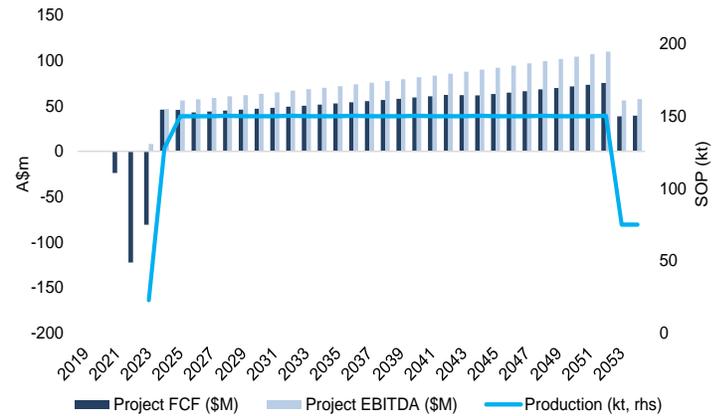
Our post-tax project cash flow estimates for the construction period and out to 2054 are shown in Figure 9. After a 24-month construction period starting in the second half of 2021, we forecast first SOP sales to commence in late 2023. We forecast free cash flows to become positive in 2024, ramping up to approximately A\$50m per annum by 2025 and maintained through the remainder of the 30-year project.

Figure 8: CGe cumulative cash flow over LOM at LWSOP



Source: Company reports, Canaccord Genuity estimates

Figure 9: EBITDA/FCF YoY over LOM



Source: Company reports, Canaccord Genuity estimates

Our project development timeline as modelled is outlined below in Figure 10. This reflects a ~three-month delay versus APC's more aggressive schedule.

Figure 10: CGe LWSOP development timeline

Item	2021				2022				2023				2024			
	MarQ	JunQ	SepQ	DecQ												
FEED	█															
Approvals	█															
Funding	█															
Early Works	█															
Engineering & Procurement	█															
Brine borefield & pond construction	█															
Plant construction	█															
Plant commissioning & ramp up	█															
Steady state production	█															

Source: Company reports, Canaccord Genuity estimates

Resources and Reserves

The LWSOP sits on a 27,678MCM Aquifer with an average SOP grade of 7,455mg/L, leaving a total drainable SOP resource of 18.1Mt. The measured resource estimate has been determined based on a conceptual Brine Abstraction Scheme and modelled using Sequent Leapfrog Geo Software. A block model was developed using 100m blocks and volumes were interpolated using inverse distance interpolation method.

Figure 11: Mineral Resource estimate

Unit	Aquifer	Specific Yield	Brine volume	SOP Grade	SOP
	MCM	Mean	MCM	Mg/L	Mt
Loam	5,180	10	518	8,941	4.60
Upper Aquitard	10,772	7	754	6,735	5.10
Crete	479	5	24	5,320	0.10
Upper Sand	801	17	136	7,660	1.00
Lower Aquitard	9,502	8	760	7,509	5.70
Mixed Aquifer	440	17	75	8,129	0.60
Basel Sand	503	23	116	7,616	0.90
Total (MCM/MT)	27,677	87	2,383	7,455	18

Source: Company reports, Canaccord Genuity

Uncertainty surrounding the modelling of groundwater systems for long periods into the future limits the Reserve categorisation to Probable and is addressed via various sensitivity and risk analysis. The Reserve has been conservatively limited to the lower end of the sensitivity analysis which provides 3.6Mt of SOP for a 30-year LOM.

For a 30-year LOM, 95% of the SOP production is supported by the Probable Reserves and 5% will be recovered from the Measured Resource. Overall abstraction is a relatively small proportion of the Measured Mineral Resource (21% will be abstracted over the LOM) which, if feasible provides the potential for continued abstraction beyond 30 years and/or an increase in the project’s annual capacity.

Figure 12: Probable Reserves

Brine Recovered	K Concentration	SOP recovered	Proportion of M Resource	Proportion LOM
Mm3	Mg/L	Mt	%	%
490	3,325	3.6	20	96

Source: Company reports, Canaccord Genuity

Production process

The LWSOP will be developed as a solar evaporation operation, comprising brine abstraction, brine evaporation and salt processing.

Brine abstraction

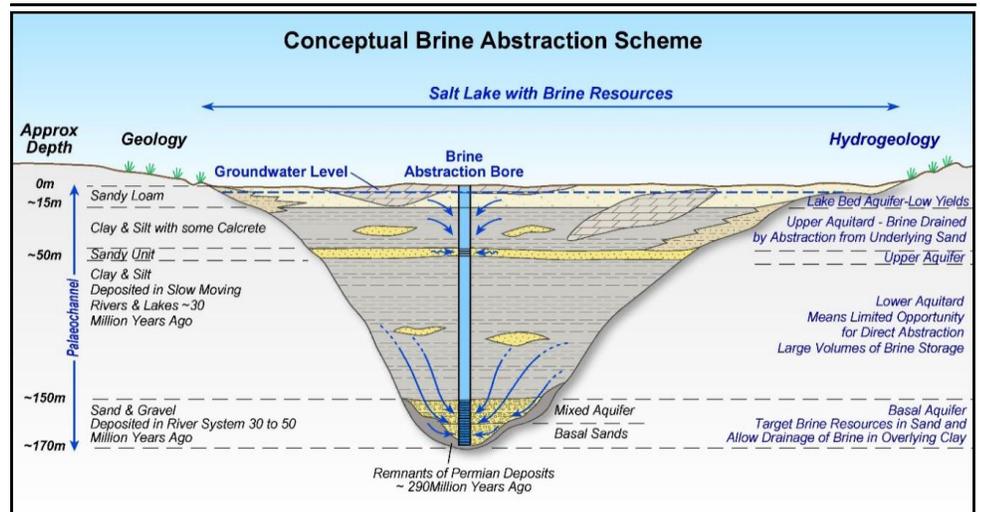
The bore-field network will be developed into the palaeovalley hosted deposit containing the potassium rich brines. Bores will be developed into the upper and lower (or Basal) aquifer units, with leakage of overlying units recharging the abstracted brine.

The bore-field design is based upon an abstraction rate across the network of 540 litres per second (l/s) of brine for the life of mine, producing 100ktpa of SOP. Total annual brine abstraction volume into the evaporation pond network is 17GLpa.

The DFS bore-field design includes 78 bores on a nominal spacing of 800m. A contingency of eight bores has been included that will be held on a stand-by to cover scheduled maintenance.

Supporting this bore-field design and hydrogeological model is data from more than 60,000m of drilling, 300,000m of seismic surveys and 1,329 exploration holes that have been completed at Lake Wells. Additionally, APC has conducted long term tests (30 days+) on six production wells developed to an average depth of 165m.

Figure 13: Conceptual brine abstraction scheme



Source: Company reports, Canaccord Genuity estimates

Brine evaporation

The solar evaporation ponds are the first stage of processing the brine to produce SOP. Water is evaporated from the brine, precipitating potassium (K) bearing salts. There are three types of ponds in the evaporation sequence:

- the buffer pond, where brine is stored and released to manage seasonal fluctuations in evaporation;
- pre-concentration ponds, where the playa brine is concentrated and sodium chloride deposits as a waste material; and
- harvest ponds, where potassium bearing salts are crystallised and harvested.

In total, 10.04km² is required for the Buffer and Pre-concentration Ponds and 2.67km² required for the harvest pond.

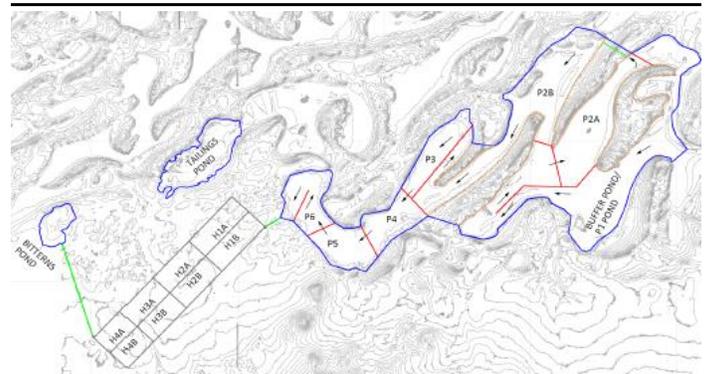
The company has completed 12 months of Class A pan evaporation trials and collected three years of on-site weather station data.

Figure 14: LWSOP borefield – 78 bores 800m spaced



Source: Company reports

Figure 15: LWSOP – evaporation pond layout



Source: Company reports

Processing

The processing facility is designed to produce 150ktpa of SOP. The process plant operates by reacting mixed salts recovered from the harvest ponds, with recirculated brine. MOP is added to the circuit where it reacts with excess sulphate to increase SOP output.

Figure 16: The process design criteria

Parameter	Value
Playa Brine Feed	19.4Mtpa
Harvest Salts to Plant	117 dry tph
MOP Addition	5.6tph
Annual Plant Availability	7800 hours
SOP Production	150ktpa
Overall Process Potassium Recovery	81.5%

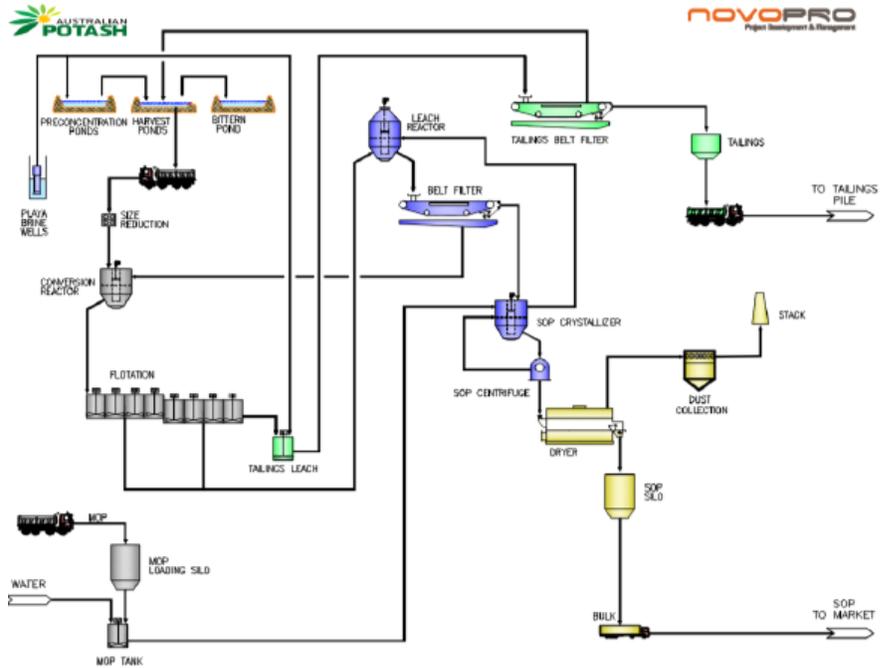
Source: Company reports

The harvested salts are directed to a crushing area for size reduction to ensure that all potassium bearing salts are sufficiently liberated. The crushed salts are then directed to the conversion reactor where they are converted to a single potassium bearing salt, Schoenite.

The Schoenite slurry is recovered and directed to flotation where the Schoenite is separated from the gangue material, with the flotation tailings leached to recover un-floated potassium bearing salts. The flotation concentrate is also leached to ensure a high purity Schoenite is produced.

In a separate unit operation, MOP is added to the wet plant process being mixed with the high purity Schoenite generated in conversion and directed to the SOP crystalliser to create pure SOP crystals.

Figure 17: Process flow sheet

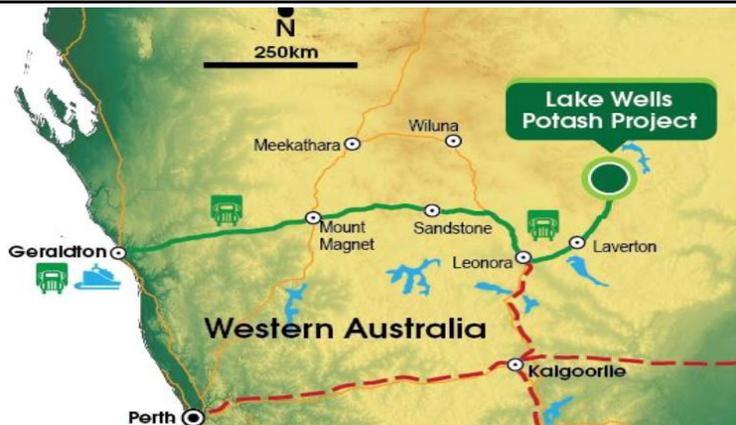


Source: Company reports

Logistics

Under the DFS, SOP is to be transported from the LWSOP site via Bulk haulage using super-quad trucks to the Geraldton Port, where the majority of product will be exported to overseas markets. A portion of the LWSOP product will be distributed into the local Australian markets and via Fremantle Port. MOP will then be backloaded back to LWSOP. We note that this is the proposed route modelled in the DFS, there are other rail and truck haulage routes available that are still being considered.

Figure 18: Logistics route



Source: Company reports

Low capex/opex

Capital expenditure

The DFS highlighted a capital cost estimate which was derived from a combination of sources including market pricing, independent engineering, and in-house data to an accuracy of +15%/-5%. Capex was estimated at A\$208m. We currently align to this expectation in our modelling, however, to be conservative we include an incremental A\$27m in our contingency estimate. As previously stated, APC expects FEED results in the near term, which will provide us with an opportunity to refine our modelling assumptions.

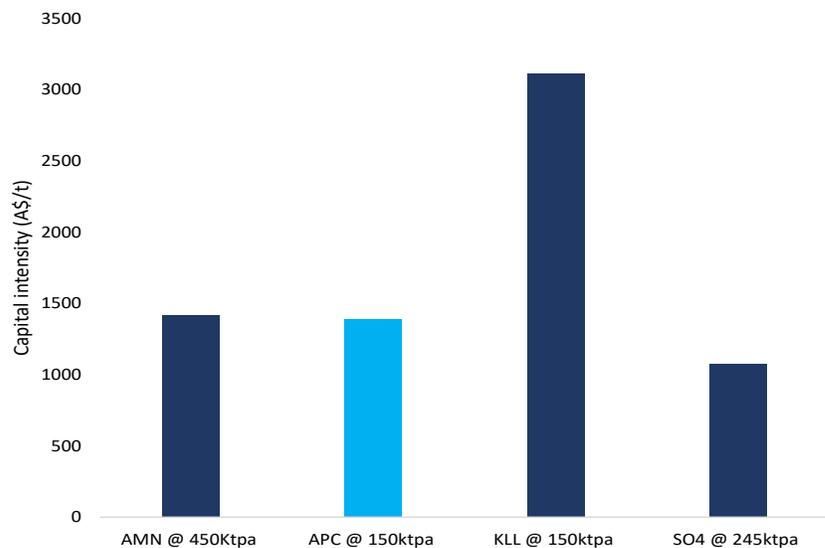
Figure 19: Capital expenditure breakdown

Capital Expenditure	DFS A\$m	CGe A\$m
Project indirects	37	37
Bore-field	48	48
Evaporation Ponds	26	26
Processing Plant	58	58
Non-process infrastructure	19	19
Contingency	20	47
Total Capex (Inc-cont)	208	235

Source: Company reports, Canaccord Genuity estimates

We have benchmarked capital intensity for Australian SOP brine projects (Figure 20). As previously mentioned, APC offers close to sector leading capital intensity of A\$1,387/t (as per the DFS).

Figure 20: Capital intensity as per DFS



Source: Company reports

Operating costs

According to the DFS, LOM average C1 costs are estimated to be US\$262/t, against our average assumed SOP price of US\$575/t, providing gross margins over 45%. As the pricing of SOP has been relatively stable over the last 10 years, and with market conditions set to improve, we are confident APC can maintain these margins throughout the LOM.

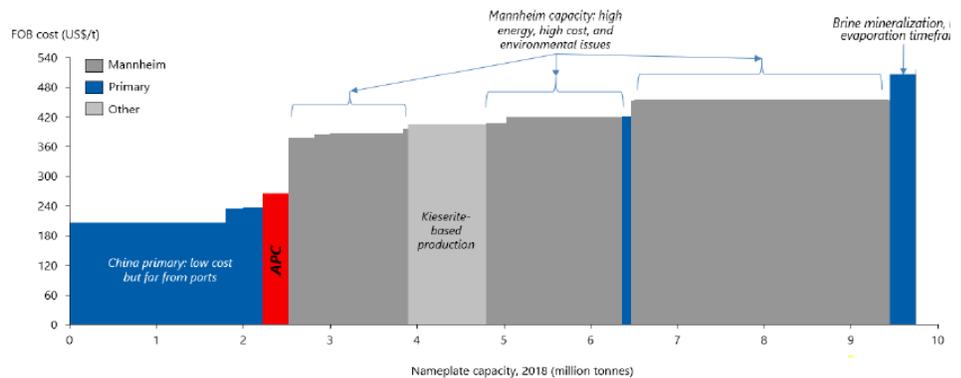
Figure 21: Operating cost breakdown

	DFS US\$/t	CGe US\$/t
Cash Cost (real)		
Salt harvesting	16	16
Power supply	40	40
Reagents and consumables	116	116
Labour	30	30
Transport and logistics	36	36
Maintenance	4	4
Indirects	20	20
Cash Cost	262	262

Source: Company reports, Canaccord Genuity estimates

Whilst APC's operating costs are not the lowest amongst its Western Australian peers, they are still highly competitive and significantly lower than secondary producers as highlighted in Figure 22.

Figure 22: Global FOB SOP cost curve, 2018



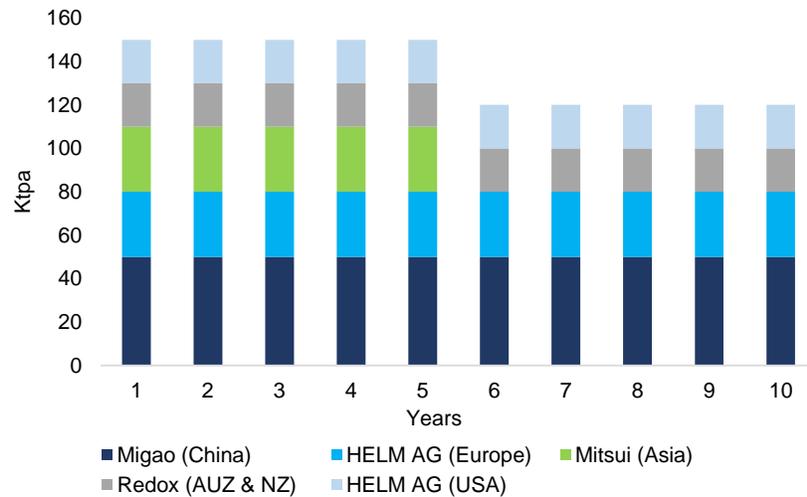
Source: Company reports, Canaccord Genuity estimates

Marketing strategy and sales agreements

APC has locked in offtake for 150ktpa via five binding term sheets that include take-or-pay provisions and a level of price protection. The agreements cover all main geographies and are with solid counterparties (Redox, Migao, Mitsui and Helm):

- 50ktpa to be distributed through China under binding offtake agreement with Migao (10 years).
- 30ktpa to be distributed through Asia (ex-China) under binding offtake agreement with Mitsui (five years).
- 30ktpa to be distributed through Europe under binding offtake with HELM AG (10 years).
- 20ktpa to be distributed through the United States under binding offtake with HELM AG (10 years).
- 20ktpa to be distributed through Australia & New Zealand under binding offtake agreement with Redox (10 years).

Figure 23: Contract book



Source: Company reports, Canaccord Genuity estimates

Peer comparisons

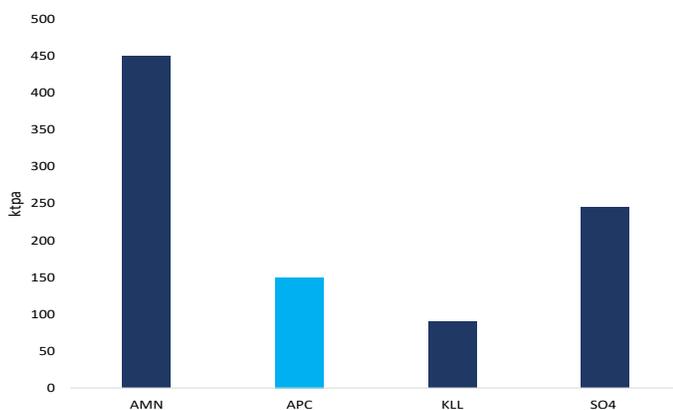
We compare APC to three other Australian-based brine developers – Kalium Lakes (KLL-ASX: A\$0.15 | Not Rated), Agrimin Limited (AMN-ASX: A\$0.54 | SPEC BUY, A\$1.38 TP) and Salt Lake Potash (SO4-ASX: A\$0.44 | BUY, A\$1.11 TP). We utilise information from the latest publicly available ASX releases and Scoping or Feasibility Studies. Data in the charts below assumes the operations being run at nameplate capacity.

Figure 24: Project comparisons

	SO4	AMN	KLL	APC
Market Cap	\$349m	\$113m	\$176m	\$91m
Enterprise Value	\$346m	\$105m	\$253m	\$87m
Distance from port by road-km	780km	950km	1090km	880km
Project stage	Construction	DFS	Construction	DFS
Annual production	245kt	450kt	90kt , 180kt	150kt
Resource - Measured/Indicated/Inferred	2.0Mt/4.0Mt/11.4Mt	3.9Mt/19.5Mt/99.9Mt	1.7Mt/9.2Mt/17.9Mt	18.1Mt (measured)
Mine life	20 years	40 years	30 years	30years
Target date for all permits	Late 2020	Not announced	Completed	2021
Funding complete	Yes	No	Yes	No
NAIF involvement	No	Ongoing	Yes	Yes
SOP price used (FOB)	US\$550/t	US\$500/t	US\$487/t	US\$614/t
Capex	A\$254m	A\$415m	A\$404m	A\$208m
AISC (FOB)	A\$355/t	A\$285/t	A\$294/t	A\$387/t
Offtake Status	Binding OT secured	None	Binding OT secured	Binding OT secured
First production	Early 2021	Mid 2024	Late 2021	Early 2023

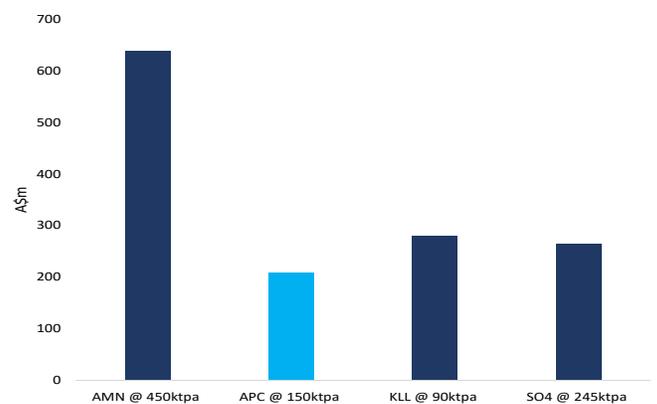
Source: Company reports, Canaccord Genuity estimates

Figure 25: Annual production rate for full scale project



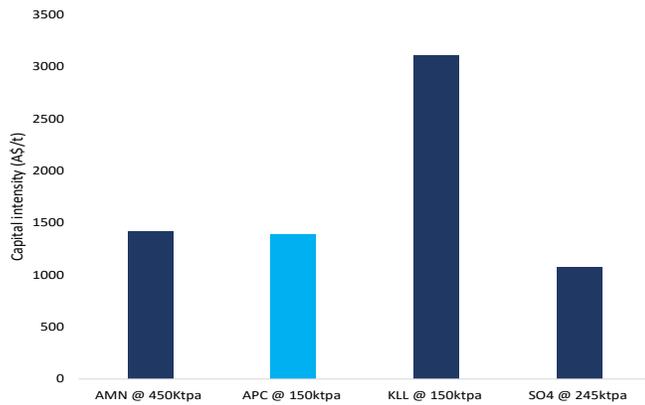
Source: Company reports, Canaccord Genuity estimates

Figure 26: Total capex for full scale project



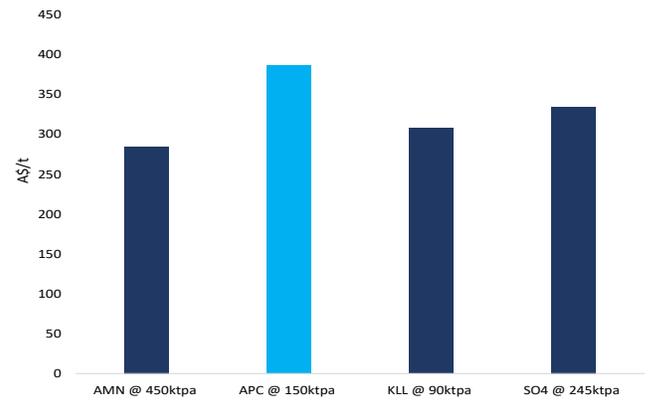
Source: Company reports, Canaccord Genuity estimates

Figure 27: Capital intensity for full scale project



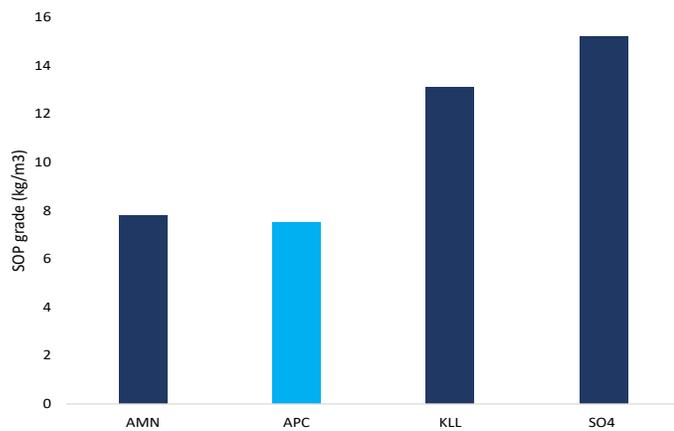
Source: Company reports, Canaccord Genuity estimates

Figure 28: AISC (including transport, royalty, etc)



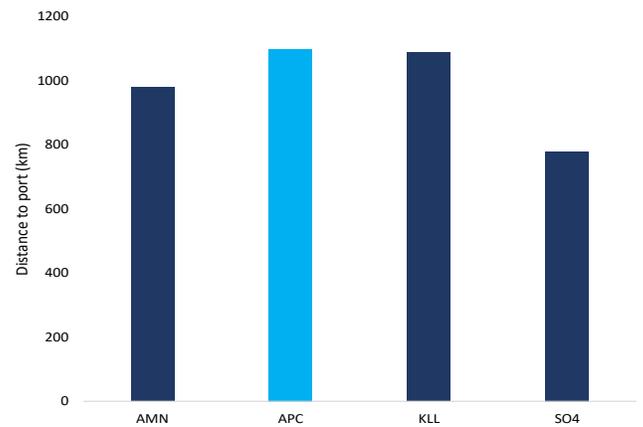
Source: Company reports, Canaccord Genuity estimates

Figure 29: Average SOP Resource grade



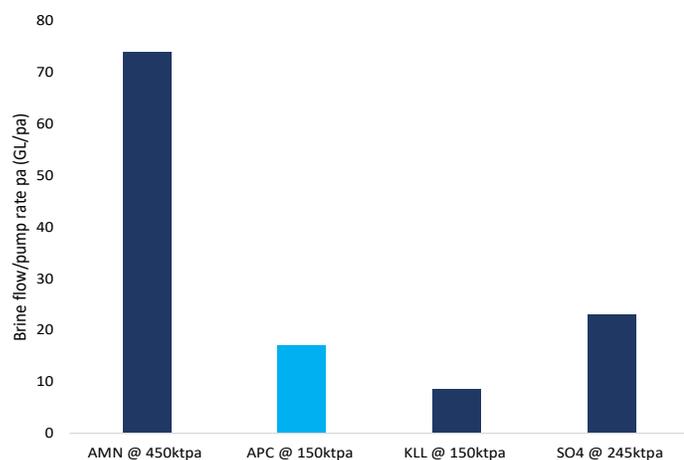
Source: Company reports, Canaccord Genuity estimates

Figure 30: Distance to elected port



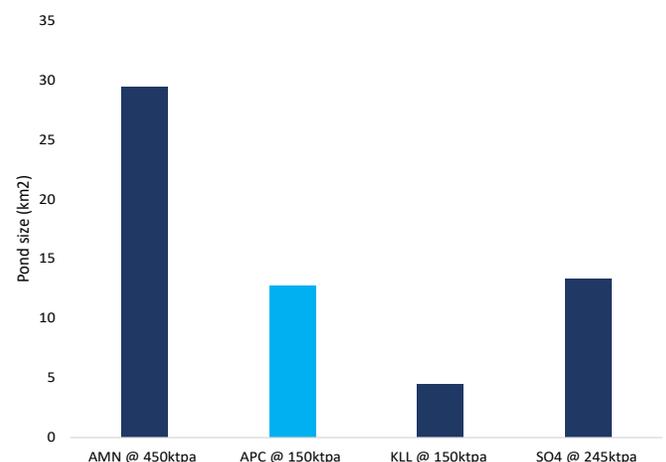
Source: Company reports, Canaccord Genuity estimates

Figure 31: Annual brine extraction rates at full scale



Source: Company reports, Canaccord Genuity estimates

Figure 32: Evaporation pond size at full scale



Source: Company reports, Canaccord Genuity estimates

Corporate and finance

Balance sheet and liquidity

APC has a cash position of ~A\$4.5m as at December 2020. Recent capital raisings have comprised:

- November 2020 – A\$7.0m placement issued at A\$0.11/share.
- May 2020 – A\$4.2m placement and rights issue at A\$0.05/share.
- November 2019 – A\$1.6m placement at A\$0.07/share at A\$0.07/share.
- May 2018 – A\$3.0m placement at A\$0.07/share at A\$0.07/share.

Capital structure

APC capital structure is shown below. Options account for less than 5% of the fully diluted capital structure and expire at various dates and at varying strike prices.

- 553m ordinary shares.
- 68m options.
- 9.85m performance rights.

Figure 33: Top 20 shareholders

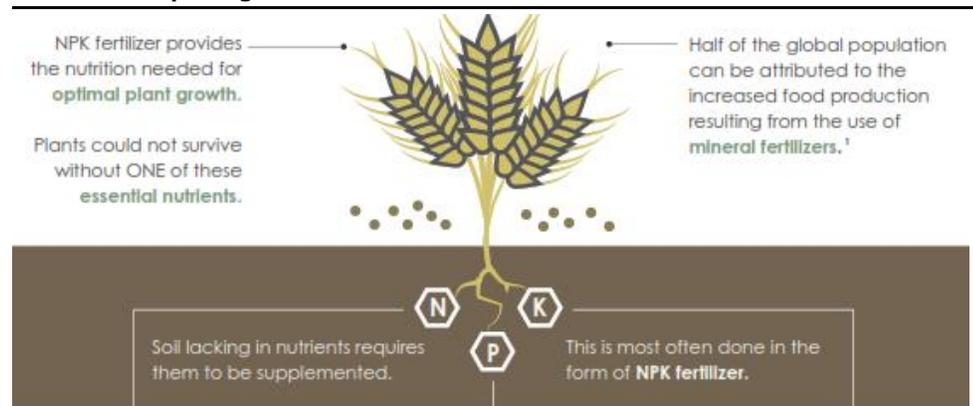
Major Shareholders	Shares (m)	Held (%)
Yandal Investments Pty Ltd	36.96	6.7
Perth Select Seafoods Pty Ltd	22.00	4.0
Acuity Capital Investment Management Pty Ltd, Asset Mana	18.50	3.3
Jemaya Pty Ltd	16.75	3.0
Cen Pty Ltd	14.80	2.7
Gary Comb	14.00	2.5
Geoffrey Coultas	11.00	2.0
Kassett Pty. Ltd.	10.52	1.9
Sea Corp Pty Ltd	10.00	1.8
Trade Holdings Pty Ltd.	9.75	1.8
Acn 157 889 104 Pty Ltd	9.16	1.7
Norman Surtees	7.85	1.4
Matthew Shackleton	7.35	1.3
Rodney Kevan	7.00	1.3
Goldphyre WA Pty Ltd.	5.81	1.1
Oceanic Capital Pty Ltd, Asset Management Arm	5.64	1.0
Anthony Burke	5.27	1.0
Tangee Pty Ltd	5.10	0.9
Andrew Nunn	5.00	0.9
Perenti Global Limited	5.00	0.9

Source: Iress

Appendix 1. Sulphate of potash market

Potassium is essential in nearly all processes needed to sustain plant growth and reproduction. Plants lacking sufficient potassium are generally far less resistant to drought, excess water and temperature variations. They are also less resistant to pests and diseases. The main sources of potassium come from potash minerals and they come in different forms including SOP and MOP, which is the most commonly used potash fertiliser. SOP is considered a premium fertiliser and is generally used more as a source of potassium for high value crops such as fruit and vegetables and crops that are intolerant to fertilisers that contain chloride such as MOP. SOP also has the added benefit of supplying sulphur to the plant which is another key macronutrient.

Figure 34: Nitrogen (N), phosphorous (P) and potassium (K) are essential nutrients for plant growth



Source: Company reports

Global demand for food is rising...

The world's population is rising. With this growing population comes growing economies, such as China, India and Indonesia, which are generating higher incomes, better infrastructure and increased consumer awareness. This growth is not only driving an increase in food consumption but also a trend towards higher demand for agricultural products and for high protein foods like those consumed in the west. As a consequence, food sourcing and security has and will continue assume a higher priority in future international agendas

The Food and Agriculture Organization of the United Nations (FAO) estimates that global food production must increase by 70% over the next four decades to fulfil the needs of the world population.

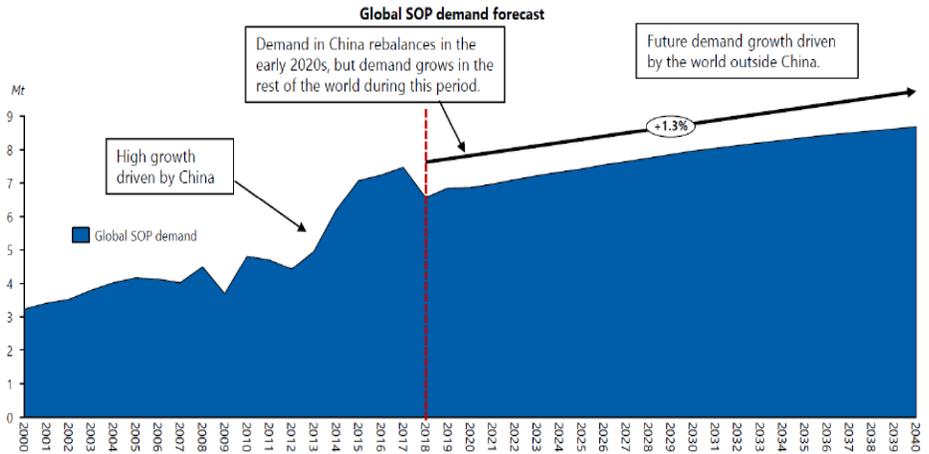
...which means changes need to be made to satisfy upcoming demand

As a result of this increase in demand for food, we believe there will be a significant change in the way agricultural markets operate globally. We have seen agricultural investments and technologies increase productivity on existing crops, however crop yields have slowed to levels that will be unable to meet the forecast future demand. Farmers will either need to increase the agricultural land they can farm on or increase the yields on the farmland they currently have, in our view.

Given the ecological and social trade-offs of clearing for more agricultural land are considered too high by many, we believe increasing crop yields is the only real solution we have to meet the rising food demand. As the amount of production continues to increase, so will the amount of potassium that is drawn from the soil through harvesting. As such, we believe that the use of potash fertilisers, and in particular SOP, will be essential in providing our soils with the nutrients they need.

Currently 50% of the world's SOP is consumed in China, with the majority of it (3-4mtpa) produced entirely by the Chinese domestic market. China is expected to remain relatively stable going forward, with the majority of growth expected to come from south-east Asian countries, including Japan and Korea where SOP crop area has risen in recent years.

Figure 35: Global SOP demand forecast

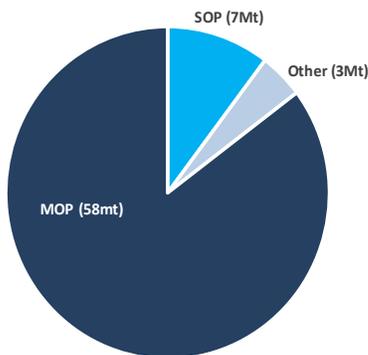


Source: Company reports, Argus Consulting

Global supply for SOP is tightening

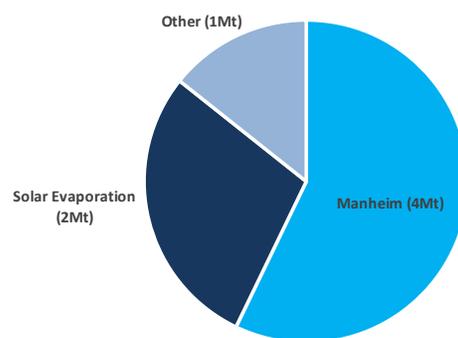
Integer Research estimated that the total potash market in 2018 was 68mt, with roughly 58mt (85%) made up of MOP and 7mt (11%) coming from SOP - approximately 3mt came from other products. There are two main processes by which SOP is produced. One method is the Mannheim process, in which MOP is chemically converted to SOP through the reaction of MOP with sulphuric acid at an elevated temperature. Another commonly used practice to produce SOP is the solar evaporation and crystallisation of brines from salt lakes and seawater. Figure 37 illustrates the global SOP production split by production method.

Figure 36: Global potash market



Source: Roskill, Canaccord Genuity

Figure 37: SOP market by production method



Source: Roskill, Canaccord Genuity

As illustrated in Figure 37, SOP production via solar evaporation makes up less than half of the total SOP market. Of the SOP produced via primary methods, a significant majority of it comes from China, either at Xinjiang Luobupo's Lop Nur salt lake, which alone has capacity of 1.8mtpa, or the Qinghai Lenghu Bindi salt lake which has a capacity of 900ktpa. China is also the largest producer of SOP via Mannheim production, with a total capacity of approximately 4mtpa.

Historically, supply outside of China has been dominated by a relatively small number of large facilities who produce via secondary methods, namely K+S and Tessenderlo. What we can see from Figure 37 is the majority of SOP is sourced through the inorganic Mannheim process. We believe that this method, although popular, will become less favourable going forward, due to its negative environmental impact and higher costs. We have already begun to see this occur amongst Chinese Mannheim producers, as a government crackdown on high polluting energy sources, such as coal, is increasing energy costs, which we believe will push some Mannheim producers out of the market.

SOP price premium

SOP is considered a premium fertiliser and is generally used more as a source of potassium for high value crops such as fruit and vegetables and crops that are intolerant to fertilisers that contain chloride such as MOP. Because of this, SOP has historically been sold at a premium to MOP.

As displayed in Figure 38, in 2013 the SOP premium over MOP grew significantly, this was mainly due to the disruption caused by the dismantling of Europe's largest potash fertiliser cartel, BPC. Since then, SOP prices have remained steady and continue to hold between US\$450/t and US\$650/t, where the price of MOP has trended downwards.

As the majority of the world's supply of SOP is currently sourced via the high cost Mannheim process, there is a natural 'floor' in the cost curve of approximately US\$400/t. This floor is considerably higher than the cash costs of the solar primary producers and we therefore believe that there is an opportunity for APC and other primary developers to price the secondary producers out of the market.

Figure 38: SOP premium over MOP



Source: Salt Lake Potash

Appendix 2. Board and management

Jim Walker - Non-Executive Chairman

Jim is the Non-Executive Chairman of Australian Potash with over 45 years of experience in the resources sector. He is currently, Chairman of Austin Engineering Ltd, Chairman of the Western Australia State Training Board, Non-Executive Chairman of the Mader Group and Deputy Chairman RAC Holdings (WA). Jim was formerly Non-Executive Chairman of Macmahon Holdings Limited, and Managing Director and Chief Executive Officer of WesTrac Pty Limited.

Matt Shackleton - Managing Director and Chief Executive Officer

Matt joined the board of Australian Potash Limited as Executive Chairman in July 2014. In 2018, in reflection of the changing nature and status of the Lake Wells SOP Project, Matt assumed the roles of Managing Director and CEO on the appointment of Jim Walker as Non-Executive Chairman.

Matt is an experienced director with over 20 years in senior corporate positions both in Australian and the UK. Previously the Managing Director of ASX-listed Western Australian gold developer Mount Magnet South NL, Matt was the founding director of ASX listed and West African gold and bauxite explorer Canyon Resources Limited. He has also held senior roles with Bannerman Resources Limited, a uranium developer, Skywest Airlines, iiNet Limited and DRCM Global Investors in London.

Matt holds a B.Comm. (Economics & Accounting) from Murdoch University in Western Australia, an MBA from The University of Western Australia, and is a Fellow of the Institute of Chartered Accountants, Australia & New Zealand, and a member of the Australian Institute of Company Directors.

Rhett Brans – Project Director

Rhett is an experienced director and civil engineer with over 45 years' experience in project developments. He is currently a Non-Executive Director of AVZ Minerals Limited and Carnavale Resources Ltd. Previously, Mr Brans was a founding director of Perseus Mining Limited and served on the boards of Tiger Resources Limited and has been a Non-Executive Director of Syrah Resources, RMG Limited and Monument Mining Limited.

Throughout his career, Rhett has been involved in the management of feasibility studies and the design and construction of mineral treatment plants across a range of commodities and geographies. Importantly, he has extensive experience as an owner's representative for numerous successful mine feasibility studies and project developments. Rhett has experience guiding optimisation of treatment plant designs, resulting in material financial improvements for projects.

Rhett holds a Dip.Engineering (Civil), and is a member of the Institution of Engineers.

Brett Lambert - Non-Executive Director

Brett is a mining engineer and experienced company director in the Australian and international mineral resources industry. Over a career spanning 35 years, Brett has held senior management roles with Western Mining Corporation, Herald Resources, Western Metals, Padaeng Industry, Intrepid Mines, Thundelarra Exploration and Bullabulling Gold. He has successfully managed a number of green-fields resource projects through feasibility study and development and has been involved in numerous facets of financing resource project development.

Brett has experience as a director of companies listed on the Australian Securities Exchange, AIM and the Toronto Stock Exchange and holds a B.App.Sc. (Mining Engineering) degree from Curtin University in Western Australia and is a Member of the Australian Institute of Mining and Metallurgy. Brett is currently a Non-executive Director of Mincor Resources NL.

Cathy Moises - Non-Executive Director

Cathy holds a Bachelor of Science with Honours in Geology from the University of Melbourne and a Diploma of Finance and Investment from the Securities Institute of Australia. She has extensive experience in the resources sector having worked as a senior resources analyst for several major stockbroking firms including McIntosh (now Merrill Lynch), County Securities (now Citigroup) and Evans and Partners where she was a partner of that firm. More recently in 2017-19, Cathy was Head of Research at Patersons Securities Limited.

Cathy brings substantial experience to APC in company management, capital markets and institutional investor engagement. Her key areas of industry experience include gold, base metals, mineral sands and the rare earths sector. Currently a Non-Executive Director of Arafura Resources and WA Kaolin.

Sophie Raven – Company Secretary

Sophie is a corporate lawyer and company secretary, with extensive experience both in Australia and internationally, including as a corporate lawyer in Santiago, Chile advising Australian and Canadian resources and drilling companies.

Over the past eight years, Sophie has held positions as Company Secretary with Golden West Resources Limited, Sunbird Energy Limited, Citation Resources Ltd, Whitebark Energy Ltd, Salt Lake Potash Limited, Cradle Resources Limited, Austin Engineering Limited and RFC Ambrian Limited.

Sophie holds a Bachelor of Laws from the University of Western Australia, and is a member of the Australian Institute of Company Directors. She is a board member of Parkerville Children and Youth Care (Inc) and The Place of Keeping Limited, both not-for-profit organisations

Appendix 3. Investment risks

APC's exploration properties may never be brought into production

The exploration for, and development of, mineral deposits involves a high degree of risk. Few properties that are explored are ultimately developed into producing mines. To mitigate this risk, the company has undertaken systematic and staged exploration and testing programs on its mineral properties and progressively undertaken a number of technical and economic studies with respect to its projects. However, given a formal decision on development is yet to be taken, there can be no guarantee that the properties will be ultimately brought into production.

APC's activities will require further capital

The development of the company's exploration properties will require substantial additional financing. Failure to obtain sufficient financing may result in delaying or indefinite postponement of exploration, and any development of the company's properties or even a loss of property interest. There can be no assurance that additional capital or other types of financing will be available if needed or that, if available, the terms of such financing will be favourable to the company.

APC may be adversely affected by fluctuations in commodity prices

The price of potash fluctuates and is affected by numerous factors beyond the control of the company. Future production and revenue, if any, from the company's mineral properties will be dependent upon the price of potash being adequate to make these properties economic. The company does not currently engage in any hedging or derivative transactions to manage commodity price risk. This policy will be reviewed periodically going forward, as the company's operations change.

Global financial conditions may adversely affect APC growth and profitability

Many industries, including the mineral resource industry, are impacted by these market conditions. Some of the key impacts of the current financial market turmoil include contraction in credit markets resulting in a widening of credit risk, devaluations and high volatility in global equity, commodity, foreign exchange and precious metal markets, and a lack of market liquidity. Due to the current nature of the company's activities, a slowdown in the financial markets or other economic conditions may adversely affect the company's growth and ability to finance its activities.

Appendix: Important Disclosures

Analyst Certification

Each authoring analyst of Canaccord Genuity whose name appears on the front page of this research hereby certifies that (i) the recommendations and opinions expressed in this research accurately reflect the authoring analyst's personal, independent and objective views about any and all of the designated investments or relevant issuers discussed herein that are within such authoring analyst's coverage universe and (ii) no part of the authoring analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by the authoring analyst in the research, and (iii) to the best of the authoring analyst's knowledge, she/he is not in receipt of material non-public information about the issuer.

Analysts employed outside the US are not registered as research analysts with FINRA. These analysts may not be associated persons of Canaccord Genuity LLC and therefore may not be subject to the FINRA Rule 2241 and NYSE Rule 472 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

Sector Coverage

Individuals identified as "Sector Coverage" cover a subject company's industry in the identified jurisdiction, but are not authoring analysts of the report.

Investment Recommendation

Date and time of first dissemination: March 14, 2021, 15:30 ET

Date and time of production: March 14, 2021, 15:10 ET

Target Price / Valuation Methodology:

Australian Potash Limited - APC

We have based our valuation for APC on a risked DCF analysis of the Lake Wells SOP project (WACC 8.5%), plus nominal exploration value, less corporate costs etc.

Risks to achieving Target Price / Valuation:

Australian Potash Limited - APC

APC's exploration properties may never be brought into production

The exploration for, and development of, mineral deposits involves a high degree of risk. Few properties that are explored are ultimately developed into producing mines. To mitigate this risk, the company has undertaken systematic and staged exploration and testing programs on its mineral properties and progressively undertaken a number of technical and economic studies with respect to its projects. However, given a formal decision on development is yet to be taken, there can be no guarantee that the properties will be ultimately brought into production.

APC's activities will require further capital

The development of the company's exploration properties will require substantial additional financing. Failure to obtain sufficient financing may result in delaying or indefinite postponement of exploration, and any development of the company's properties or even a loss of property interest. There can be no assurance that additional capital or other types of financing will be available if needed or that, if available, the terms of such financing will be favourable to the company.

APC may be adversely affected by fluctuations in commodity prices

The price of potash fluctuates and is affected by numerous factors beyond the control of the company. Future production and revenue, if any, from the company's mineral properties will be dependent upon the price of potash being adequate to make these properties economic. The company does not currently engage in any hedging or derivative transactions to manage commodity price risk. This policy will be reviewed periodically going forward, as the company's operations change.

Global financial conditions may adversely affect APC growth and profitability

Many industries, including the mineral resource industry, are impacted by these market conditions. Some of the key impacts of the current financial market turmoil include contraction in credit markets resulting in a widening of credit risk, devaluations and high volatility in global equity, commodity, foreign exchange and precious metal markets, and a lack of market liquidity. Due to the current nature of the company's activities, a slowdown in the financial markets or other economic conditions may adversely affect the company's growth and ability to finance its activities.

Distribution of Ratings:

Global Stock Ratings (as of 03/14/21)

Rating	Coverage Universe		IB Clients
	#	%	%
Buy	597	65.03%	60.47%
Hold	154	16.78%	42.21%
Sell	14	1.53%	42.86%
Speculative Buy	137	14.92%	81.02%
	918*	100.0%	

*Total includes stocks that are Under Review

Canaccord Genuity Ratings System

BUY: The stock is expected to generate risk-adjusted returns of over 10% during the next 12 months.

HOLD: The stock is expected to generate risk-adjusted returns of 0-10% during the next 12 months.

SELL: The stock is expected to generate negative risk-adjusted returns during the next 12 months.

NOT RATED: Canaccord Genuity does not provide research coverage of the relevant issuer.

"Risk-adjusted return" refers to the expected return in relation to the amount of risk associated with the designated investment or the relevant issuer.

Risk Qualifier

SPECULATIVE: Stocks bear significantly higher risk that typically cannot be valued by normal fundamental criteria. Investments in the stock may result in material loss.

12-Month Recommendation History (as of date same as the Global Stock Ratings table)

A list of all the recommendations on any issuer under coverage that was disseminated during the preceding 12-month period may be obtained at the following website (provided as a hyperlink if this report is being read electronically) <http://disclosures-mar.canaccordgenuity.com/EN/Pages/default.aspx>

Required Company-Specific Disclosures (as of date of this publication)

Australian Potash Limited currently is, or in the past 12 months was, a client of Canaccord Genuity or its affiliated companies. During this period, Canaccord Genuity or its affiliated companies provided investment banking services to Australian Potash Limited.

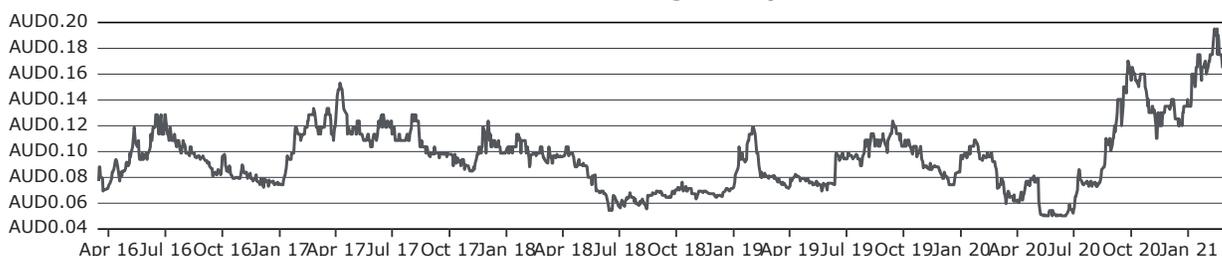
In the past 12 months, Canaccord Genuity or its affiliated companies have received compensation for Investment Banking services from Australian Potash Limited .

In the past 12 months, Canaccord Genuity or any of its affiliated companies have been lead manager, co-lead manager or co-manager of a public offering of securities of Australian Potash Limited or any publicly disclosed offer of securities of Australian Potash Limited or in any related derivatives.

Canaccord Genuity or one or more of its affiliated companies intend to seek or expect to receive compensation for Investment Banking services from Australian Potash Limited in the next three months.

Canaccord Genuity (Australia) Limited has received a fee as Joint Lead Manager to the Australian Potash Limited Capital Raising announced 2 November 2020.

Australian Potash Limited Rating History as of 03/12/2021



— Closing Price — Price Target

Buy (B); Speculative Buy (SB); Sell (S); Hold (H); Suspended (SU); Under Review (UR); Restricted (RE); Not Rated (NR)

Required Company-Specific Disclosures (as of date of this publication)

Past performance

In line with Article 44(4)(b), MiFID II Delegated Regulation, we disclose price performance for the preceding five years or the whole period for which the financial instrument has been offered or investment service provided where less than five years. Please note price history refers to actual past performance, and that past performance is not a reliable indicator of future price and/or performance.

Online Disclosures

Up-to-date disclosures may be obtained at the following website (provided as a hyperlink if this report is being read electronically) <http://disclosures.canaccordgenuity.com/EN/Pages/default.aspx>; or by sending a request to Canaccord Genuity Corp. Research, Attn: Disclosures, P.O. Box 10337 Pacific Centre, 2200-609 Granville Street, Vancouver, BC, Canada V7Y 1H2; or by sending a request by email to disclosures@cgf.com. The reader may also obtain a copy of Canaccord Genuity's policies and procedures regarding the dissemination of research by following the steps outlined above.

General Disclaimers

See "Required Company-Specific Disclosures" above for any of the following disclosures required as to companies referred to in this report: manager or co-manager roles; 1% or other ownership; compensation for certain services; types of client relationships; research analyst conflicts; managed/co-managed public offerings in prior periods; directorships; market making in equity securities and related derivatives. For reports identified above as compendium reports, the foregoing required company-specific disclosures can be found in a hyperlink located in the section labeled, "Compendium Reports." "Canaccord Genuity" is the business name used by certain wholly owned subsidiaries of Canaccord Genuity Group Inc., including Canaccord Genuity LLC, Canaccord Genuity Limited, Canaccord Genuity Corp., and Canaccord Genuity (Australia) Limited, an affiliated company that is 80%-owned by Canaccord Genuity Group Inc.

The authoring analysts who are responsible for the preparation of this research are employed by Canaccord Genuity Corp. a Canadian broker-dealer with principal offices located in Vancouver, Calgary, Toronto, Montreal, or Canaccord Genuity LLC, a US broker-dealer with principal offices located in New York, Boston, San Francisco and Houston, or Canaccord Genuity Limited., a UK broker-dealer with principal offices located in London (UK) and Dublin (Ireland), or Canaccord Genuity (Australia) Limited, an Australian broker-dealer with principal offices located in Sydney and Melbourne.

The authoring analysts who are responsible for the preparation of this research have received (or will receive) compensation based upon (among other factors) the Investment Banking revenues and general profits of Canaccord Genuity. However, such authoring analysts have not received, and will not receive, compensation that is directly based upon or linked to one or more specific Investment Banking activities, or to recommendations contained in the research.

Some regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of research. This research has been prepared in accordance with Canaccord Genuity's policy on managing conflicts of interest, and information barriers or firewalls have been used where appropriate. Canaccord Genuity's policy is available upon request.

The information contained in this research has been compiled by Canaccord Genuity from sources believed to be reliable, but (with the exception of the information about Canaccord Genuity) no representation or warranty, express or implied, is made by Canaccord Genuity, its affiliated companies or any other person as to its fairness, accuracy, completeness or correctness. Canaccord Genuity has not independently verified the facts, assumptions, and estimates contained herein. All estimates, opinions and other information contained in this research constitute Canaccord Genuity's judgement as of the date of this research, are subject to change without notice and are provided in good faith but without legal responsibility or liability.

From time to time, Canaccord Genuity salespeople, traders, and other professionals provide oral or written market commentary or trading strategies to our clients and our principal trading desk that reflect opinions that are contrary to the opinions expressed in this research. Canaccord Genuity's affiliates, principal trading desk, and investing businesses also from time to time make investment decisions that are inconsistent with the recommendations or views expressed in this research.

This research is provided for information purposes only and does not constitute an offer or solicitation to buy or sell any designated investments discussed herein in any jurisdiction where such offer or solicitation would be prohibited. As a result, the designated investments discussed in this research may not be eligible for sale in some jurisdictions. This research is not, and under no circumstances should be construed as, a solicitation to act as a securities broker or dealer in any jurisdiction by any person or company that is not legally permitted to carry on the business of a securities broker or dealer in that jurisdiction. This material is prepared for general circulation to clients and does not have regard to the investment objectives, financial situation or particular needs of any particular person. Investors should obtain advice based on their own individual circumstances before making an investment decision. To the fullest extent permitted by law, none of Canaccord Genuity, its affiliated companies or any other person accepts any liability whatsoever for any direct or consequential loss arising from or relating to any use of the information contained in this research.

Research Distribution Policy

Canaccord Genuity research is posted on the Canaccord Genuity Research Portal and will be available simultaneously for access by all of Canaccord Genuity's customers who are entitled to receive the firm's research. In addition research may be distributed by the firm's sales and trading personnel via email, instant message or other electronic means. Customers entitled to receive research may also receive it via third party vendors. Until such time as research is made available to Canaccord Genuity's customers as described

above, Authoring Analysts will not discuss the contents of their research with Sales and Trading or Investment Banking employees without prior compliance consent.

For further information about the proprietary model(s) associated with the covered issuer(s) in this research report, clients should contact their local sales representative.

Short-Term Trade Ideas

Research Analysts may, from time to time, discuss "short-term trade ideas" in research reports. A short-term trade idea offers a near-term view on how a security may trade, based on market and trading events or catalysts, and the resulting trading opportunity that may be available. Any such trading strategies are distinct from and do not affect the analysts' fundamental equity rating for such stocks. A short-term trade idea may differ from the price targets and recommendations in our published research reports that reflect the research analyst's views of the longer-term (i.e. one-year or greater) prospects of the subject company, as a result of the differing time horizons, methodologies and/or other factors. It is possible, for example, that a subject company's common equity that is considered a long-term 'Hold' or 'Sell' might present a short-term buying opportunity as a result of temporary selling pressure in the market or for other reasons described in the research report; conversely, a subject company's stock rated a long-term 'Buy' or 'Speculative Buy' could be considered susceptible to a downward price correction, or other factors may exist that lead the research analyst to suggest a sale over the short-term. Short-term trade ideas are not ratings, nor are they part of any ratings system, and the firm does not intend, and does not undertake any obligation, to maintain or update short-term trade ideas. Short-term trade ideas are not suitable for all investors and are not tailored to individual investor circumstances and objectives, and investors should make their own independent decisions regarding any securities or strategies discussed herein. Please contact your salesperson for more information regarding Canaccord Genuity's research.

For Canadian Residents:

This research has been approved by Canaccord Genuity Corp., which accepts sole responsibility for this research and its dissemination in Canada. Canaccord Genuity Corp. is registered and regulated by the Investment Industry Regulatory Organization of Canada (IIROC) and is a Member of the Canadian Investor Protection Fund. Canadian clients wishing to effect transactions in any designated investment discussed should do so through a qualified salesperson of Canaccord Genuity Corp. in their particular province or territory.

For United States Persons:

Canaccord Genuity LLC, a US registered broker-dealer, accepts responsibility for this research and its dissemination in the United States. This research is intended for distribution in the United States only to certain US institutional investors. US clients wishing to effect transactions in any designated investment discussed should do so through a qualified salesperson of Canaccord Genuity LLC. Analysts employed outside the US, as specifically indicated elsewhere in this report, are not registered as research analysts with FINRA. These analysts may not be associated persons of Canaccord Genuity LLC and therefore may not be subject to the FINRA Rule 2241 and NYSE Rule 472 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

For United Kingdom and European Residents:

This research is distributed in the United Kingdom and elsewhere Europe, as third party research by Canaccord Genuity Limited, which is authorized and regulated by the Financial Conduct Authority. This research is for distribution only to persons who are Eligible Counterparties or Professional Clients only and is exempt from the general restrictions in section 21 of the Financial Services and Markets Act 2000 on the communication of invitations or inducements to engage in investment activity on the grounds that it is being distributed in the United Kingdom only to persons of a kind described in Article 19(5) (Investment Professionals) and 49(2) (High Net Worth companies, unincorporated associations etc) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended). It is not intended to be distributed or passed on, directly or indirectly, to any other class of persons. This material is not for distribution in the United Kingdom or elsewhere in Europe to retail clients, as defined under the rules of the Financial Conduct Authority.

For Jersey, Guernsey and Isle of Man Residents:

This research is sent to you by Canaccord Genuity Wealth (International) Limited (CGWI) for information purposes and is not to be construed as a solicitation or an offer to purchase or sell investments or related financial instruments. This research has been produced by an affiliate of CGWI for circulation to its institutional clients and also CGWI. Its contents have been approved by CGWI and we are providing it to you on the basis that we believe it to be of interest to you. This statement should be read in conjunction with your client agreement, CGWI's current terms of business and the other disclosures and disclaimers contained within this research. If you are in any doubt, you should consult your financial adviser.

CGWI is licensed and regulated by the Guernsey Financial Services Commission, the Jersey Financial Services Commission and the Isle of Man Financial Supervision Commission. CGWI is registered in Guernsey and is a wholly owned subsidiary of Canaccord Genuity Group Inc.

For Australian Residents:

This research is distributed in Australia by Canaccord Genuity (Australia) Limited ABN 19 075 071 466 holder of AFS Licence No 234666. To the extent that this research contains any advice, this is limited to general advice only. Recipients should take into account their own personal circumstances before making an investment decision. Clients wishing to effect any transactions in any financial products discussed in the research should do so through a qualified representative of Canaccord Genuity (Australia) Limited or its Wealth Management affiliated company, Canaccord Genuity Financial Limited ABN 69 008 896 311 holder of AFS Licence No 239052.

For Hong Kong Residents:

This research is distributed in Hong Kong by Canaccord Genuity (Hong Kong) Limited which is licensed by the Securities and Futures Commission. This research is only intended for persons who fall within the definition of professional investor as defined in the Securities and Futures Ordinance. It is not intended to be distributed or passed on, directly or indirectly, to any other class of persons. Recipients of this report can contact Canaccord Genuity (Hong Kong) Limited. (Contact Tel: +852 3919 2561) in respect of any matters arising from, or in connection with, this research.

Additional information is available on request.

Copyright © Canaccord Genuity Corp. 2021 – Member IIROC/Canadian Investor Protection Fund

Copyright © Canaccord Genuity Limited. 2021 – Member LSE, authorized and regulated by the Financial Conduct Authority.

Copyright © Canaccord Genuity LLC 2021 – Member FINRA/SIPC

Copyright © Canaccord Genuity (Australia) Limited. 2021 – Participant of ASX Group, Chi-x Australia and of the NSX. Authorized and regulated by ASIC.

All rights reserved. All material presented in this document, unless specifically indicated otherwise, is under copyright to Canaccord Genuity Corp., Canaccord Genuity Limited, Canaccord Genuity LLC or Canaccord Genuity Group Inc. None of the material, nor its content, nor any copy of it, may be altered in any way, or transmitted to or distributed to any other party, without the prior express written permission of the entities listed above.

None of the material, nor its content, nor any copy of it, may be altered in any way, reproduced, or distributed to any other party including by way of any form of social media, without the prior express written permission of the entities listed above.