ASPIRE MINING LIMITED

Research Note

MANY OPTIONS FOR OVOOT, WITH VALUE CLEAR

Aspire Mining Limited (AKM) recently released the PFS results for the Ovoot Early Development Project (OEDP). The project appears robust, generating a pre-tax IRR of 43.7% on conservative assumptions, with moderate capex requirements. AKM has positioned itself well, with two highly supportive major shareholders, one a Mongolian local, a number of funding options, and a number of different project development options. Whilst investment in Mongolia is not without risk, the presence of a prominent Mongolian businessman as a substantial and supportive shareholders in our view substantially mitigates the country risk. We maintain out Spec Buy recommendation.

- **The OEDP project sees a 560km special purpose haul road constructed from the mine site to connect to a rail head at Erdenet.** The coal will then be delivered on the Mongolian rail network that has confirmed available capacity for the OEDP coal through to the Mongolian/China border crossing of Erlian to Chinese end customers. Total capital required is US$275m as follows:
  - Mine and logistics: US$63m
  - Pre-strip US$47m
  - Road construction US$165m

  The single pit operation has a LOM strip ratio of 4.6:1, with 4mtpa of washed saleable "fat" coking coal over an initial 9.2 year life. The capital intensive Ovoot Rail project, which is likely to occur later in the overall project life, sees annual production of 10mtpa over c.25 years. If for any reason the larger rail project fails to eventuate, the company has the ability to rework the existing reserves and expand the life of the OEDP pit to 12.5 years (NPV then increases by 29% to US$758m). PFS delivers an average Lom net direct C1 cost of US$81/t delivered to the China border at Erlian, positioning AKM as a second quartile producer on the global cost curve. Further expansions are possible. Development timeline sees commencement of construction in Q4 2019, with commissioning from Q1 2021.

  AKM has indicated the potential for a further cutback of the OEDP pit, which would extend the mine life to 12.5 years, and significantly increase valuation. Beyond this timeframe, the most likely scenario is ramp up to the rail option. We have not included this option in our valuation.

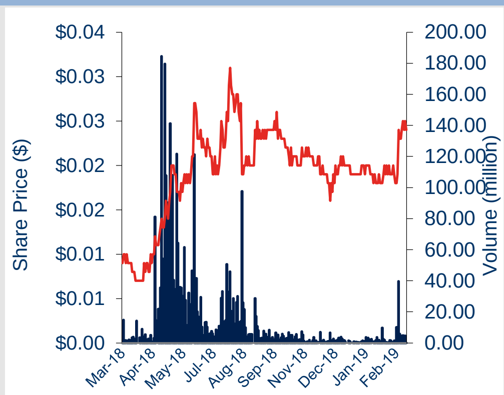
Year End June 30	2018A	2019F	2020F	2021F	2022F
Reported NPAT ($m)	(6.9)	(3.1)	(3.8)	(10.8)	70.0
Recurrent NPAT ($m)	(6.9)	(3.1)	(3.8)	(10.8)	70.0
Recurrent EPS (cents)	(39.7)	(0.1)	(0.1)	(0.3)	0.7
EPS Growth (%)	na	na	na	na	na
PER (x)	(0.1)	(25.5)	(25.6)	(9.2)	3.5
PEG	na	na	na	na	na
EBITDA ($m)	(6.3)	(4.8)	(4.7)	(4.7)	150.9
EV/EBITDA (x)	0.6	(15.6)	(39.4)	(82.3)	2.0
Free Cashflow	(4.9)	(6.9)	(132.1)	(248.4)	142.4
FCFPS (cents)	(28.2)	(0.2)	(3.2)	(6.0)	3.4
PFCF (x)	(0.1)	(11.6)	(0.7)	(0.4)	0.7
DPS (cents)	0.0	0.0	0.0	0.0	0.0
Yield (%)	0.0	0.0	0.0	0.0	0.0
Franking (%)	0.0	0.0	0.0	0.0	0.0

12 March 2019

12mth Rating		SPEC BUY
Price	A$	0.02
Target Price	A$	0.09
12mth Total Return	%	281.6
RIC: **AKM.AX**		BBG: **AKM AU**
Shares o/s	m	3326.5
Free Float	%	100.0
Market Cap.	A$m	79.8
Net Debt (Cash)	A$m	-10.9
Net Debt/Equity	%	na
3mth Av. D. T'over	A$m	0.048
52wk High/Low	A$	0.03/0.01
2yr adj. beta		1.04
Valuation:		
Methodology		DCF
Value per share	A$	0.09

Analyst: Cathy Moises
Phone: (+61) 3 9242 4030
Email: cmoises@psl.com.au

12 Month Share Price Performance



Performance %	1mth	3mth	12mth
Absolute	26.3	26.3	166.7
Rel. S&P/ASX 300	24.3	17.0	163.6

COMPANY SNAPSHOT

Aspire Mining Limited (AKM) is focussed on discovering and developing world class premium coking coal deposits in Mongolia, holding a large coal tenement within the Orkhon-Selenge Coal Basin in northern Mongolia, with a 100% interest in the world class Ovoot Coking Coal Project, a 90% interest in the Nuurstei Coking Coal Project and a 100% interest in the Myangan Coal Project.

Aspire's flagship Ovoot project is host to 255 Mt JORC Coal Reserves and can sustain full scale production of up to 10 Mtpa of saleable coking coal over a 21 year life of mine. Ovoot is ready to head into a definitive feasibility study having completed two pre-feasibility studies, received a mining licence, and approval by the Mineral Resource Authority of Mongolia for its Mongolian Feasibility Study. Ovoot's further development is dependent on the construction of the Erdenet – Ovoot railway to link Ovoot with Mongolia's existing rail system. AKM recently completed a PFS on the Ovoot Early Development Project (OEDP), which sees a purpose built road replace the longer term rail option between the mine site and Erdenet. This project shows a robust IRR, and modest capital requirements, with development potentially commencing later this year. AKM has a solid cash position of over $15m, with two highly supportive substantial shareholders.

Given the early nature of the full scale Ovoot rail project, we have focussed entirely on the OEDP in this report, and present our numbers based on this project as a standalone.

Figure 1: Project Locations

Source: Aspire Mining Limited

OVERVIEW OF THE OEDP

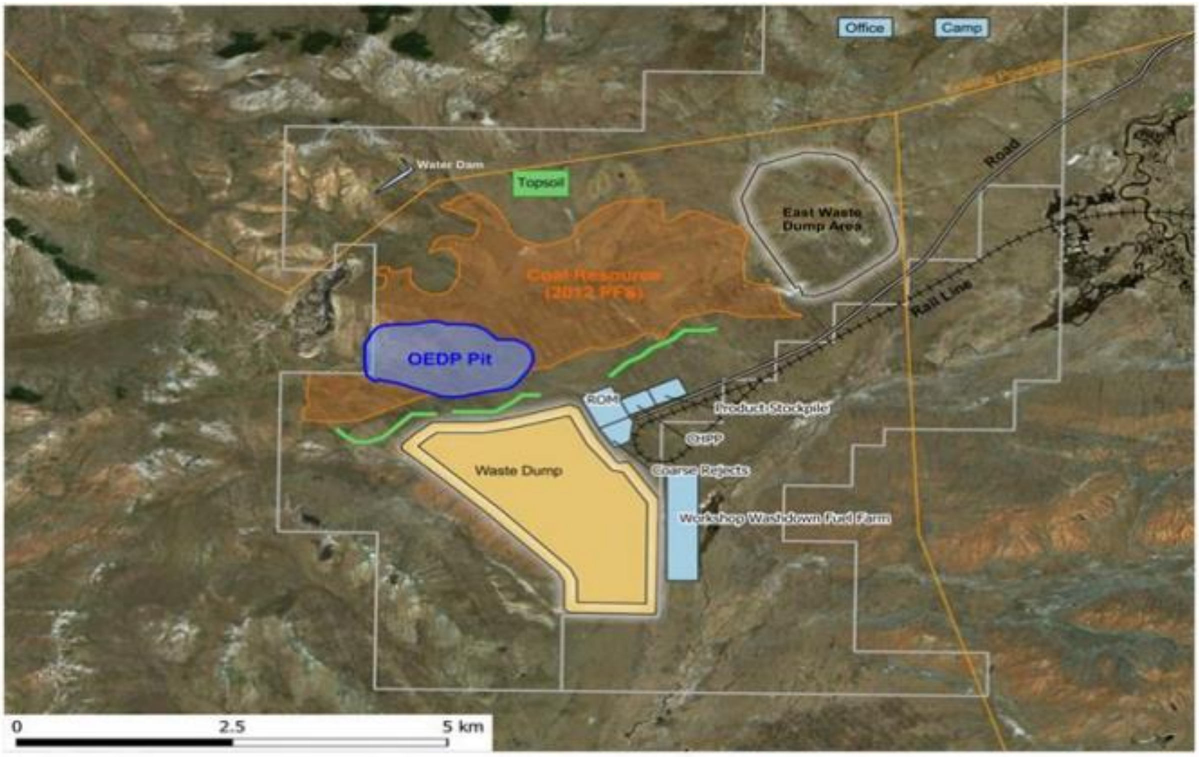
The OEDP project was developed to fast track coal production from the broader Ovoot Coal project through the construction of a purpose built haul road between the project and the Mongolian township of Erdenet. Capital reduces from over $1.3bn for the larger project to c US$275m, with project scale also significantly lower – Stage 1 being 4mtpa over a 9.2 mine life, with the potential to expand to 12.5 years with minimal capital expenditure. Ovoot Coking Coal project, which has a granted mining lease, is located in northern Mongolia c. 200km west of the Mongolian township of Moron (Figure 2). To facilitate early development, the company has adopted a two stage development plan which sees a low capex stage one involving a purpose build road to haul the coal the first leg of the journey. The PFS for this option confirms the technical and economic robustness of developing a steady state 4.0Mtpa operation supported by a special purpose haul road which will connect into the exiting Mongolian rail network to China and other key markets. This early stage project is the focus of this report, with the larger scale, rail only product remaining too risky to include in our valuation at this early stage.

Figure 2: Project Location

Source: Aspire Mining Limited

The OEDP project involves mining a relatively low ash and high yielding coal from a starter pit that sits within the larger Ovoot Project Reserve, and construction of a special purpose 560km haul road which will connect into the existing Mongolian rail network to China and other key end markets. The figure below shows the layout of the EODP pit within the larger coal resource. In the event the larger scale, rail based production project is delayed, the OEDP can be extended initially out to 12.5 years with 56.7Mt of coking coal being mined in a low capital intensity manner to unlock attractive economics that are not rail dependent. This option will process just under ¼ of the existing Ovoot Project Reserves. Our upside scenario for the OEDP sees c 50% of the overall Ovoot reserve mined within the OEDP project, with valuation rising to $399m for the project under this assumption. Given we are risk weighting to 75% and using a DR of 12%, extending the mine life beyond the 12.5 Stave 2 scenario generates little additional value.

Figure 3: OEDP pit plan within the overall layout



Source: Aspire Mining Limited

JORC RESOURCES AND RESERVES

The OEDP Reserves were calculated assuming 5% resource dilution, with a further optimisation based on trucking product to the rail at Erdenet, thus increasing grade and reducing tonnage vs. the longer term total rail project. Overall Ovoot Resources total 255Mt Coal, with the OEDP Reserves a relatively small subset within this larger scale resource.

Figure 4: OEDP Reserves

Category	Coal Reserve (adb) ROM Mt	Coal Reserve Total Moisture 2.0% arb ROM Mt	ROM Coal adb Ash Content %	ROM Coal adb CSN%
Probable Ore Reserve Ore Open Pit OEDP	36.8	37.6	17.2	7.9
Probable Ore Reserve Open Pit OEDP Plus OEDP Extension	53.8	54.9	18.0	8.5

Category	Marketable Coal Reserve Total Moisture 10% arb Mt	Product Specification adb Ash Content %	Product Specification adb CSN%
Probable Product Reserve Ore Open Pit OEDP	32.2	10.5	8.5
Probable Product Reserve Open Pit OEDP Plus OEDP Extension	46.2	10.5	8.5

Source: Aspire Mining Limited

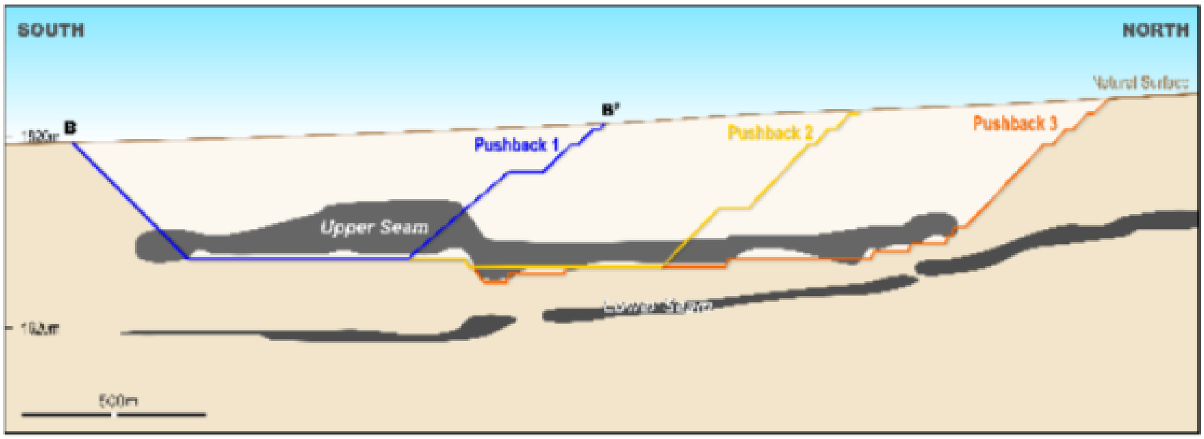
Figure 5: Key OEDP Outcomes

	Average Annual	OEDP Total	Total Extended Trucking Option
Physicals			
Waste Mined (M Bcm)	19.7	167.7	253.6
Strip Ratio (Bcm/t coal) (incl. pre-strip)		4.6	4.7
Coal Mined (Mt)	4.6	36.8	53.8
Average Yield (10% moisture)		88%	86%
Coal sold (net of 2% loss) (Mt)	4.0	31.6	45.2
Life of Mine		9.2 years	12.5 years
Operating Costs			
Mine $/t		31	33
Trucking $/t		32	32
Rail + Border Charges- $/t		18	18
C1 Cash Costs 4/t		81	83
Total Cash Costs $/t		100	102
Financial Assumptions			
Coking Coal Price (net received price to Erlian border)		150	150
Exchange Rates: MNT:USD		2600	2600
Rmb:USD		6.8	6.8
Royalties: Mongolian		6.5%	6.5%
Marketing and China Border Cost US$\t		8.6	8.6
EBITDA	$172m	$1.6bn	$2.2bn
Capital Investment			
Mine: Establishment		$110m	$110m
Maintenance		$1mpa	$1mpa
Road: Establishment		$165m	$165m
Maintenance		$2mpa	$2mpa
Pre-tax net present value (10%)		$586m	$758m
Internal Rate of Return (Pre-tax)		43.7%	44.5%
Payback (commencing first full year of production)		24 months	24 months

Source: Aspire Mining Limited

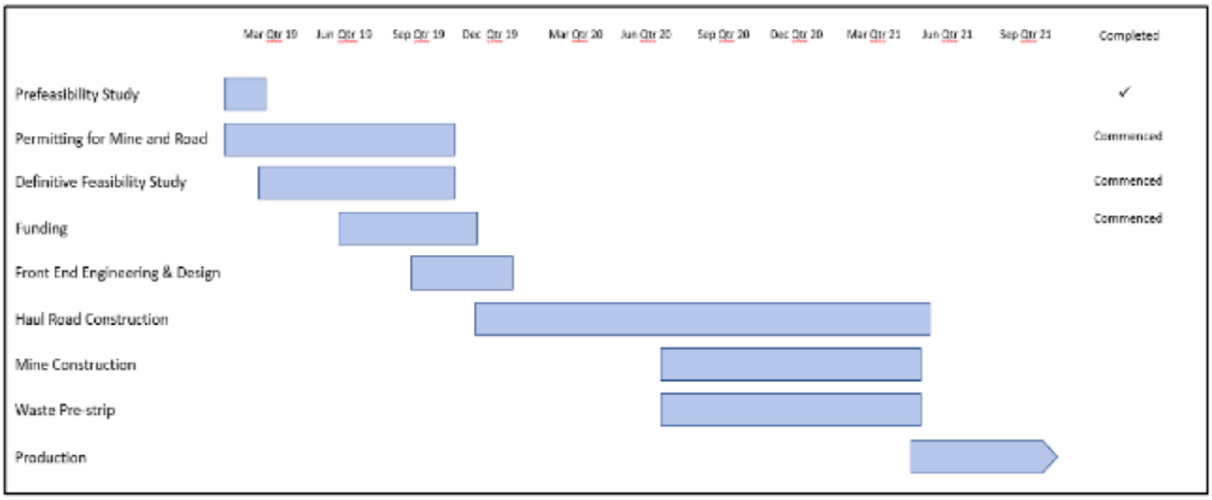
The OEDP DFS is already underway, with commencement of road construction targeted for Q4 2019, commissioning from Q1 2021 and first coal production in Q2 2021. Critical path item is the Erdenet to Ovoot road construction, with a 15 month construction time frame once all permits are in place and funding secured. AKM is targeting to secure funding and permits by the Q3 2019 to allow the haul road to commence immediately thereafter. Mine plan involves three successive cut-backs, with consistent annual waste pre-stripping after the initial pre-strip to top of coal is established. Power is via a combination of solar and grid, with genset back-ups. Solar will be the key power source due to inconsistent reliability on the local grid. Whilst the PFS sees AKM looking to conserve water wherever possible, there are good water sources from underground and surface, with the water table intersected on numerous occasions during exploration drilling.. The company will require a local community agreement to purchase.

Figure 6: Indicative OEDP Cross section



Source: Aspire Mining Limited

Figure 7: Project Development time line



Source: Aspire Mining Limited

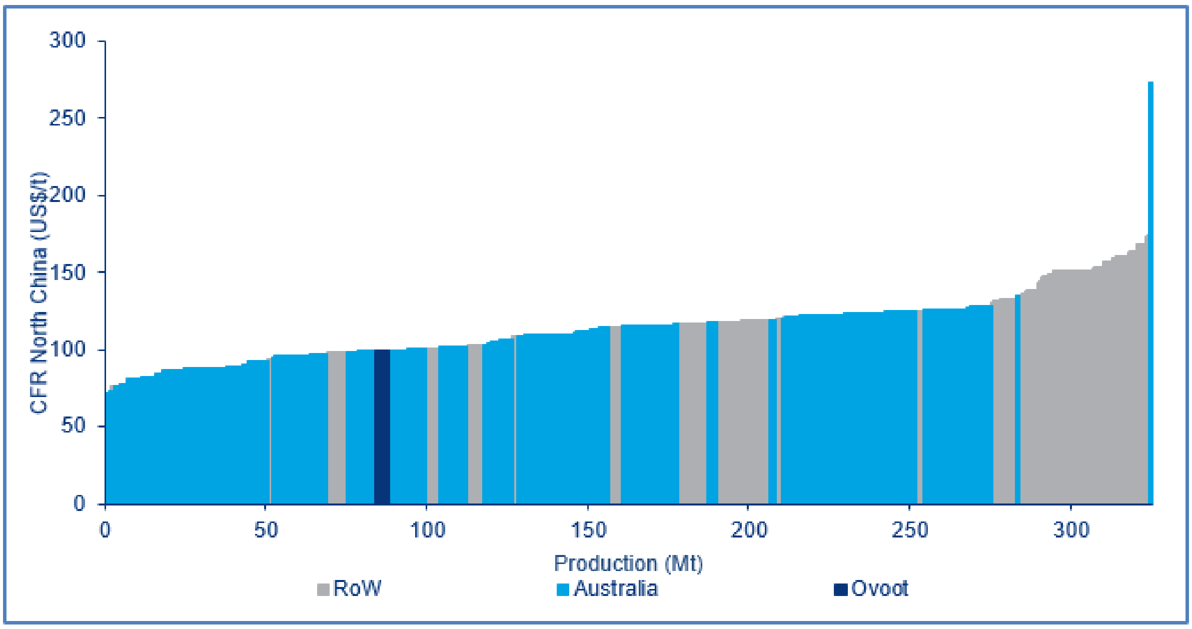
Figure 8: Operational summary

OVOOT OPERATIONAL SUMMARY		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
PRODUCTION - FIRST STAGE																			
Ore Milled	(k t)				1,500	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	300
Average Yield (10% moisture)	(%)				88.00%	88.00%	88.00%	88.00%	88.00%	88.00%	88.00%	88.00%	88.00%	88.00%	88.00%	88.00%	88.00%	88.00%	88.00%
Production - Fat Coal	**(k t)**				**1,320**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**264**
PRODUCTION - TOTAL																			
Ore Milled	(k t)				1,500	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	300
Average Yield (10% moisture)	(%)				88.00%	88.00%	88.00%	88.00%	88.00%	88.00%	88.00%	88.00%	88.00%	88.00%	88.00%	88.00%	88.00%	88.00%	88.00%
Production - Fat Coal	**(k t)**				**1,320**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**264**
Sales - Fat Coal	**(k t)**				**1,320**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**3,520**	**264**
Cash Cost	**($/t)**				**83**	**84**	**84**	**84**	**85**	**85**	**85**	**86**	**86**	**86**	**86**	**87**	**87**	**87**	**88**
Cash Cost	**($US/t)**				**94.78**	**95.04**	**95.39**	**95.75**	**96.11**	**96.47**	**96.83**	**97.19**	**97.56**	**97.93**	**98.29**	**98.66**	**99.03**	**99.40**	**99.64**
AISC	**($US/t)**				**144.73**	**145.89**	**147.93**	**148.43**	**149.16**	**149.69**	**150.22**	**150.75**	**151.27**	**151.81**	**152.34**	**152.88**	**153.41**	**153.95**	**156.95**
PROFIT AND LOSS																			
Revenue	(A$ M)				272	740	775	775	788	789	790	792	793	794	795	797	798	799	60
Operating Costs	(A$ M)				-171	-461	-466	-468	-470	-472	-473	-475	-477	-479	-481	-482	-484	-486	-37
Royalty	(A$ M)				-18	-48	-50	-50	-51	-51	-51	-51	-52	-52	-52	-52	-52	-52	-4
Tax Provision	(A$ M)				-12	-23	-29	-29	-21	-30	-30	-30	-30	-30	-30	-30	-30	-30	-2
Mine cash Flow	**(A$ M)**				**70**	**207**	**229**	**228**	**246**	**236**	**235**	**235**	**234**	**234**	**233**	**233**	**232**	**231**	**18**
Sustaining Capital	(A$ M)				-2	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-1
Development Capital	(A$ M)		-126	-251															
Trfr from Exploration	(A$ M)																		
Net Cash Flow	**(A$ M)**		**-126**	**-251**	**53**	**162**	**184**	**182**	**200**	**190**	**190**	**189**	**189**	**188**	**188**	**187**	**186**	**186**	**14**

Source: Patersons Securities Limited

The operational summary shown above, based on our own internal forecasts, shows strong cash margins, based on what we believe is a relatively conservative Fat Coal price assumption. The figure below showing Ovoot to feature within the lower end of the cost curve for Metallurgical Coal producers, despite producing a premium product, and thus likely to receive pricing premiums.

Figure 9: 2025 Seaborne Metallurgical Coal Cost Curve



Source: Type Text Here

VALUATION

The table below shows the valuation based on the starter pit of 53.8mt of coal, risk weighted to 75%. We have assumed a 25% equity/75% debt split due to the potential to fund the road build via separate infrastructure funding. Given the current total reserve is 255mt of coal, even the expanded version only represents 21% of the broader reserve base. We feel it is too premature to attempt to value the broader capital intensive rail only project. Given the company has indicated if for any reason the rail option failed to proceed, they would look to revising the current total reserves/resources to remain economic for an extended road/rail option, we felt it pertinent to also include an upside case on the road rail option. Within the expanded case below, we assume 50% of the current reserve could be upgraded to accommodate the road/rail option.

Figure 10: Base case valuation

Valuation	A$m	A$/sh
Okvoot risk weighted to 75%	382.7	0.05
Exploration	100.0	0.01
Sub Total	**482.7**	**0.06**
Investments		
Financial		
Cash + receivables and inventory	24.5	0.00
Total Borrowings + creditors	(5.8)	(0.00)
Equity raised/Option Exercise	107.5	0.01
Corporate/Other	(13.0)	(0.00)
Total	**113.1**	**0.01**
NPV (@10% discount rate)	**595.8**	**0.08**
Price Target		**0.08**

Source: Patersons Securities Limited

Figure 11: Valuation for OEDP only… expanded and base case

	Base	OEDP Extension	Expanded
Additional tonnage (kt)	-17,000	+0	+73,700
Project valuation ($m)	278	383	399

Source: Patersons Securities Limited

CORPORATE

AKM currently has 3,326,530,658 ordinary shares outstanding, with 700,732,652 options exercisable at 1.9c on the 11 Dec 2019. These options, currently in the money should bring in an additional $13.32m upon exercise. :

PROJECT FUNDING

AKM is currently cashed up with $15.4m cash as at 30 December 2019. The company recently completed strategic financing comprising:

- Cornerstone placement of $10m to Mongolian substantial shareholder, Mr. Tserenpuntsag;
- Additional placement pre-commitments of $2.1m to other investors; and
- Debt to equity conversion of the existing Noble debt of US$2.4m

We view the presence of 2 clearly highly supportive major shareholders as positive in reducing the funding risk of the project, as we do expect both to likely feature in any equity component of the raising.

AKM have a number of different alternatives to pursue to achieve project funding:

1. Fund the road development via separate infrastructure funding, c. $110m to be funded via conventional means.
2. The entire c. $275m capital cost to be funded via conventional debt/equity finance.
3. Direct equity participation in the project by one or more of the current substantial shareholders

The Company's two major shareholders, Mr Tserenpuntsag and Noble Group are reported to have expressed in principal interest in taking leading roles in the required project financing.

PRODUCT PRICING

As part of the OEDP PFS, AKM engaged International coal market consultants Fenwei energy Information Services Co Ltd (Fenwei) to undertake a Coal Quality Competitive Assessment through to 2025. Whilst the report forecast a relatively balanced overall Chinese metallurgical coal market through to 2025, it flagged rising demand for quality "Fat" Coking coal, with a supply gap of 16-22Mtpa forecast over the period.

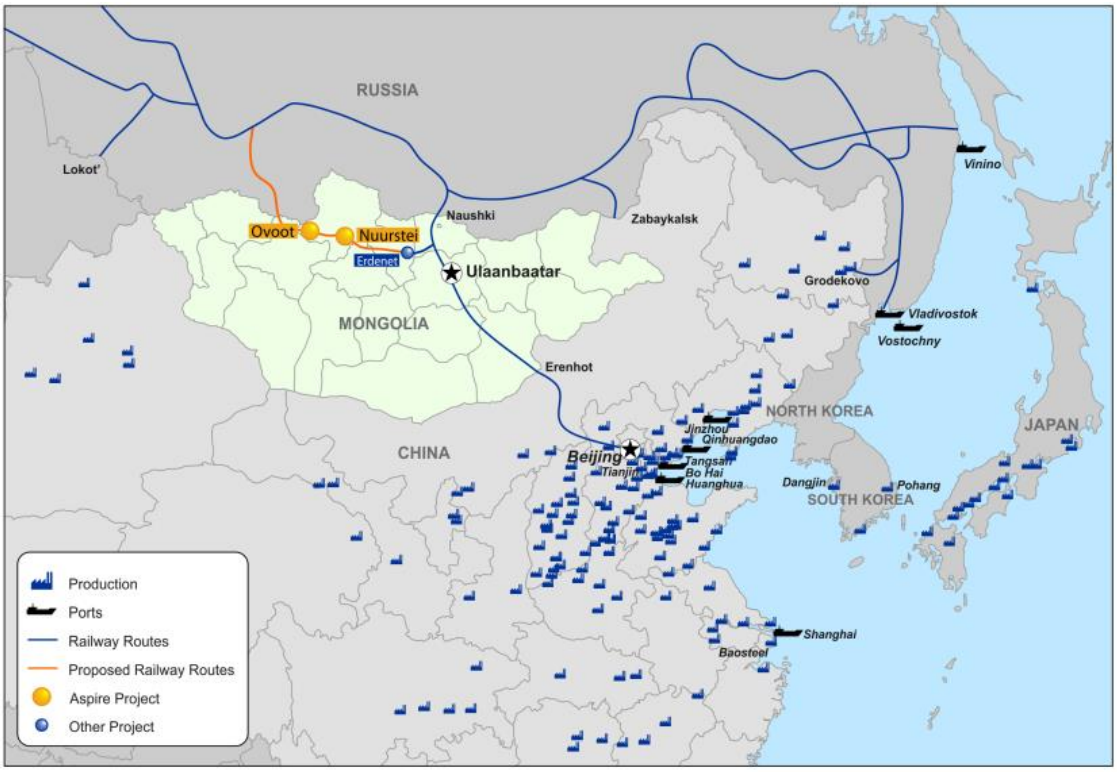
With Mongolian coking coals being delivered into end markets in China, prices for similar quality imported coals will essentially include all associated transport costs, which can add US$20-Us$25/t to FOB pricing. The current ex-VAT price for benchmark fat coking coal in the Heibei province is US$194/t, with Fenwei forecasting a slightly lower range from 2019 to 2025 of US$189 falling to US$176/t. Wood Mackenzie forecasts the production of met coal production to increase from 2017 to 2023 at a CAGR of 4% per annum, exceeding their forecasts for steel production, which they forecast to growth at a CAGR of 1% per annum over the same period. The key growth drivers are expected to be infrastructure investment with the majority of this growth driven by developing nations in Asia.

Ovoot Coking Coal is classified as a "Fat" Coking coal under the Chinese coking coal classification system. This coal category provides high fluidity coals with good plastic and excess caking properties which are used to blend with lower quality coking coals. The quality of this coal is such that it has been demonstrated to be used to blend with even some non-coking coals to bring the blend to coking coal standards and significantly increase the sale price. In June 2016, AKM entered into a MOU with Erdenes Tavan Tolgoi JSC, a Mongolian Government controlled entity (owns the Tavan Tolgoi coal Mine), detailing cooperation on further technical and commercial assessments regarding the blending of AKM's Ovoot Coking Coal with various coals from the Tavan Tolgoi deposit.

Figure 12: Coking Coal Regions

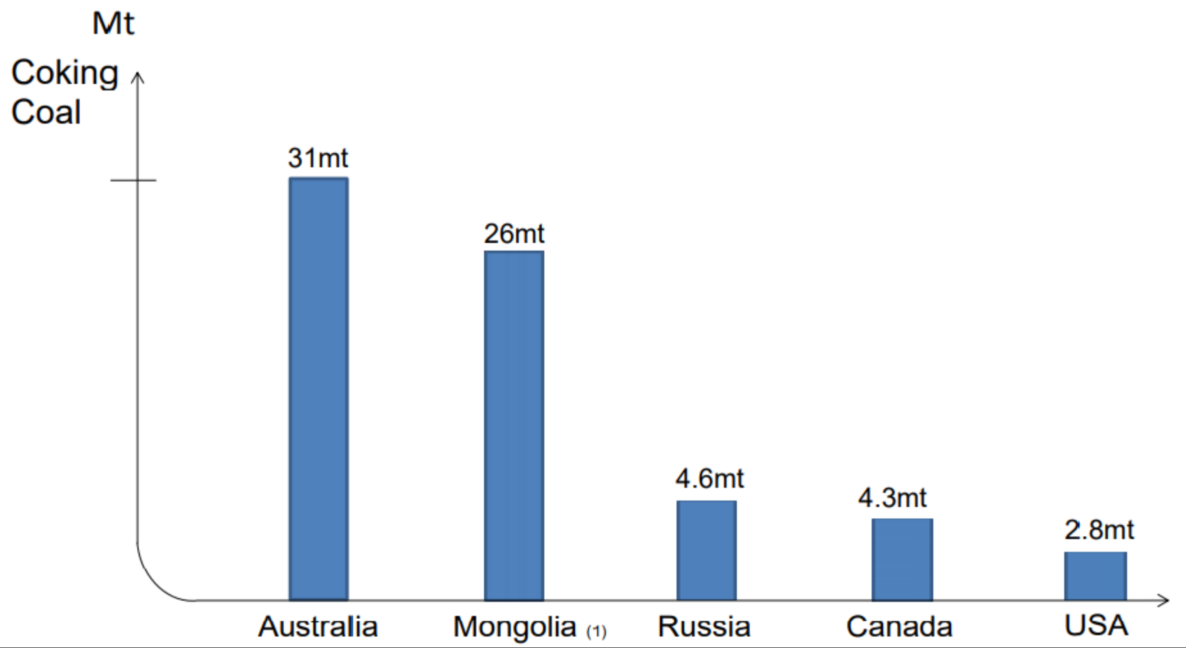
Source: Aspire Mining Limited

Figure 13: Steel Mill End Users



Source: Aspire Mining Limited

Figure 14: China Coking Coal Imports - 2017



Source: SX Coal

MARKETTING

China is the world's largest producer of steel, producing 832Mt of steel in 2017. This steel production required 531Mt of coking coal of which approximately 450Mt was mined domestically and 75Mt was imported. Mongolia is set to replace Australia as the largest exporter of coking coal to China's steel industry. According to the Mongolia's Mineral Resources and Petroleum Statistics 2018, Mongolia exported a total of 31Mt of coking coal, but only 5.5Mt had been washed. In a study prepared by Fenwei Energy Informant Services Ltd, Fenwei noted that the market in China for "fat" coking coal is approximately 75Mt and that with forecast declining domestic production, a deficit of between 16Mt and 22Mt was observable in the medium term.

Fenwei estimated delivered prices for OEDP coking coal into these markets would achieve prices of between US$191\t to US$180\t using an existing branded coal as a benchmark on a delivered to customer gate basis. By adding back Chinese trucking costs, an equivalent price at the Mongolian\Chinese border at Erlian can be established. This calculated net back forecast price at Erlian is between US$156/t down to US$145/t.

While the PFS is based on 100% delivery to end customers in Northern China, there are additional markets using the Russian rail system incentivised by agreed Russian rail discounts for Mongolian coking coals. This will open up possible markets in Russia's steel industry as well as Eastern Europe, Turkey and Pacific seaborne markets which will be investigated during the DFS period.

WHY MONGOLIA

We have little experience of companies developing in Mongolia, so look to AKM for information on the political risk of the region. The presence of Mt Tserenpuntsag, a prominent Mongolian National as the most significant shareholder in AKM does in our view mitigate the country risk to a certain extent.

Mongolia appears a financial stable country, with GDP forecasts of 5.9% and 6.6% respectively for 2018 and 2019CY. The company operated under a positive trade balance in 2016 (+US$1.6B) and 2017 (+US$1.9B). The country appears pro-foreign investment, with a developing society actively seeking major trade and investment inflows. IPO of state owned coal mine Tavan Tolgoi is already planned. The country is heavily dependent on the mining industry which currently contributes 25% of GDP and over 90% of exports.

RISKS

Below we have identified a number of risks which may impact AKM. These are by no means a complete list of risks and there may be other beyond those identified:

Resource: We view the main resource at Ovoot as well defined and relatively homogenous. As such we do not see any major risk for ore dilution as would be the case in conventional metals mines.

Financing: Whilst the US$275m total funding requirement for the first stage of the Ovoot development is multiples of the current AKM market capitalisation, we view this as achievable for following reasons:

1. There is likely to be a bias toward debt, with the potential to fund the US$165 civil works portion of the development via an infrastructure funding package.
2. The company has two highly supportive substantial shareholders which we view as likely to feature in any equity funding component.

Infrastructure: Ovoot is relatively isolated, hence the need for the purpose build road (and later on rail)

Country Risk: Whilst we see country risk as moderate given both political parties are supportive of mining there is a chance that a change in mining policy may occur. . There has been one instance in 2009 where a uranium asset (Dornod uranium deposit) owned by Khan Resources (KRI-T) was taken off the Company. This went to International Arbitration and KRI-T was awarded US$80m plus $9m in costs. In 2012, South Gobi Resources (SGQ-T) was unable to close a deal with Chalco (2600-HK) for US$926m as it could not obtain the necessary regulatory approvals from the Mongolian Government. We feel the presence of a Mongolian national as substantial shareholders does mitigate the country risk.

Commodity Price: Nuurstei cashflows are highly dependent on the prevailing coking coal pricing. The Ovoot development is also somewhat dependent on pricing although all-in-costs are likely to be lower.

Exchange Rate: AKM has Mongolian based assets and is subject to fluctuations in the tögrög (Mongolian) currency against the US dollar.

DIRECTORS AND MANAGEMENT

Mr David Paull - Managing Director and Chair. Mr Paull has over 25 years' experience in resource business development and industrial minerals marketing. Over the last eight years David has been the Managing Director of AKM. David holds a Bachelor of Commerce from the University of Western Australia and a Master of Business Administration with distinction from Cornell University New York. He is a fellow of the financial services institute of Australia.

Mr Neil Lithgow - Non-Executive Director. Mr Lithgow has over 25 years' experience in mineral exploration, mineral economics and mining feasibility studies, covering base metals, coal, iron ore and gold. Mr Lithgow has previously worked for Aquila Resources Limited and Eagle Mining Corporation NL. Mr Lithgow is a founder and a Non-Executive Director of Bauxite Resources Limited. Neil is a member of the Australian Institute of Mining and Metallurgy and the Financial Services Institute of Australia.

Mr Gan-Ochir Zunduisuren - Executive Director. Mr Zunduisuren has over 25 years of experience in the resource sector including underground zinc mining, gold mining and mining business development in Mongolia and Canada. Mr Zunduisuren is a Managing Executive Director and co-founder of Altai Gold LLC, a mineral resource focused Investment Company and was a key member of the syndicate that made the Ovoot Coking Coal project discovery. Mr Zunduisuren has a degree in Mining Engineering from the Mongolian University of Science and Technology and an MSc in Global Finance from NYU Stern School of Business and HKUST.

Mr Boldbaatar Bat-Amgalan - Executive Director. Mr Boldbaatar Bat-Amgalan has had senior roles in PR and publishing, and was previously a director of Erdenet Mining Company. He also previous held senior roles in the Government of Mongolia, including the State Secretary for the Ministry of Foreign Affairs and Chairman of the Communication Regulatory Commission.

Mr Achit-Erdene Darambazar Non-Executive Director. Mr Darambazar is financial adviser to Mr Tserenpuntsag, the substantial shareholder in AKM, and President and CEO of Mongolia International Capital Corporation LLC (MICC), a leading Mongolian investment banking firm. He is also a successful Mongolian businessman in his own right.

Ms Hannah Badenach Non-Executive Director. Ms Badenach holds a Bachelor of Laws (Hons) and a Bachelor of Arts from the University of Tasmania. She currently acts as Vice President of Asset Development and Operations at Noble Resources Limited, a subsidiary of the Noble Group (SGX:N21). Ms Badenach has considerable experience in management and development within Mongolia. Her previous roles have included practising law for several years in Asia, including two years in Mongolia with Lynch & Mahoney. Ms Badenach was also previously Managing Director of QGX Mongol LLC from 2006, a coal explorer and developer prior to its takeover in 2008 by Mongolia Holdings Corporation.

Mr Alex Passmore Non-Executive Director. Mr Passmore is an experienced and well regarded corporate executive with a strong financial and technical background in the resource sector. Alex has a diverse background having held technical roles in the industry and then senior positions in both the institutional debt financing and equity capital market arenas. More recently he has assumed executive positions with listed resource companies.

THE FUTURE

Our entire analysis of Ovoot is premised only on the first stage, road/rail option, as we consider there are too many uncertainties to place valuation on the larger, rail only project. AKM has positioned itself strongly in the world coal market, owning one of Mongolia's largest coking coal JORC Reserves/Resources, with 281kt coal in resources and 255kt coal in reserves. The company holds a dedicated rail subsidiary, Northern Railways, with a 30 year rail concession to unlock a future production profile of up to 10Mtpa for over 20 years. Ovoot is ready to head into a DFS having completed two PFS studies, received a mining licence and approval by the Mineral Resource Authority of Mongolia for its Mongolian Feasibility Study. Previous studies indicate:

- Annual throughput 10mtpa
- Average LOM strip ratio 7.7:1 (higher than stage1)
- Whilst operating and capital costs were stated, we consider both need a refresh given the time since the studies were completed.

Mongolia, Russia and China remain supportive of the construction of the Erdenet-Ovoot-Kyzyl railway. The leaders of these countries met in June 2018 and confirmed their support for One Belt One Road project through Mongolia. The Erdenet to Ovoot railway is part of Mongolian Rail policy included in the "Northern Rail" economic corridor between China and Russia through Mongolia and supported by all three Governments to facilitate trade between the three nations and the wider Asian and European economies. In addition, an agreement was signed between Russia and Mongolia agreeing to discounted rail tariffs through the Russian rail system.

A previous study completed in 2012 indicated a US$1.25b cost to build the railway, we assume this would have escalated.. We are awaiting Gezhouba's decision on exercising its option in Northern Railways LLC to take up to a 51% interest. In order to achieve this Gezhouba requires more comfort around the rail upgrade plan of UTBZ (Mongolia's National Rail Operator). This upgrade is planned as part of UTBZ's future plans. If Gezhouba exercises its option in Northern Railways LLC this would be a major catalyst for AKM. Gezhouba, a significant Chinese Company, could then conceivably organise financing by early 2019. This could allow construction to commence in mid-2019 with the potential for Ovoot production by 2021. We believe it is likely that Gezhouba will exercise its option however if it didn't we see the support shown by Mongolia, Russia and China would see a new partner emerge.

Northern Railways is a Mongolian registered infrastructure company established by Aspire as a special purpose vehicle to progress the development of the Erdenet to Ovoot railway in Northern Mongolian. This rail line will extend the existing Mongolian rail network to connect Northern Mongolia with the Russian city of Kyzyl, thereby creating an international rail link. Northern Railways is backed by a consortium including Aspire and China Railways 20 Bureau Group Corporation (CR20G) and China Gezhouba Group International Ltd (CGGU). One of AKM's substantial shareholders, Noble Group is also supportive of the railway holding direct equity in the company of 20%. It is expected that AKM will dilute to 34% over time as the Chinese invest.

AKM outlined significant support for the Erdenet to Ovoot Railway in its June Q 2018 report which includes:

1. The leaders of Russia, China and Mongolia held their regular annual meeting on the sidelines of the Shanghai Cooperation Organisation Conference in June 2018 and confirmed support for One Belt One Road Projects through Mongolia.
2. An agreement was signed between Russia and Mongolia agreeing amongst other things to discounted rail tariffs for Mongolian coal exports through the Russian rail system.
3. A Memorandum of Understanding was entered into between the Russian Federation's Tuva Republic and Northern Railways LLC to work together to support a future rail connection between the Ovoot Rail Project and the Tuvan Capital of Kyzyl.
4. In July 2018 the Mongolian Parliament approved important amendments to the Mongolian National Rail Policy that confirm the Northern Rail Corridor extension from Erdenet – Ovoot – Arts Suuri (On Russia -Mongolia border).

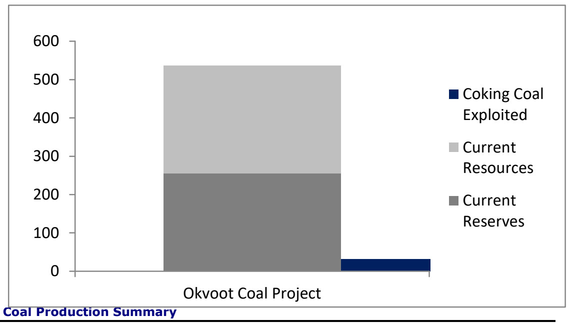
AND THERE'S MORE

In addition to Ovoot, AKM also holds a 90% interest in the smaller Nuurstei Coking Coal Project (originally acquired from Xanadu Mines), and a 100% interest in the Myangan Coal Project, both also located in Mongolia. Nuurstei has JORC Coal Resources of 4.7 Mt of Indicated and 8.1 Mt of Inferred. The coal here is a low volatile bituminous coal, with moderate to high ash levels and low sulphur. Ore here is likely to be transported on the larger Ovoot rail option (with a connecting haul road).

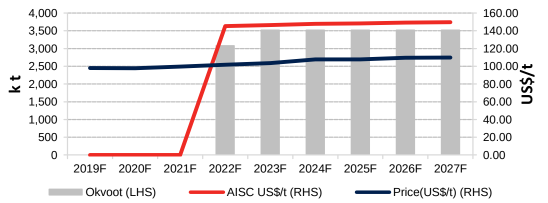
Aspire Mining Limited $0.02

Valuation	A$m	A$/sh
Okvoot risk weighted to 75%	256.0	0.06
Exploration	10.0	0.00
Sub Total	**266.0**	**0.07**
Investments		
Financial		
Cash + receivables and inventory	16.8	0.00
Total Borrowings + creditors	(5.8)	(0.00)
Equity raised/Option Exercise	108.6	0.03
Corporate/Other	(13.0)	(0.00)
Total	**106.5**	**0.03**
NPV (@10% discount rate)	**372.5**	**0.09**
Price Target		**0.09**

Coal exploited as a subset of reserves/resources (k oz)



Coal Production Summary



Reserves & Resources

Reserves	MT Fat Coal
Okvoot	255
Total	**255.0**
Resources	**MT Fat Coal**
Okvoot	281.0
Nurstei	
Total	**281.0**

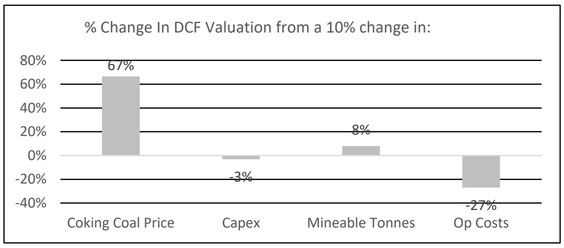
Directors

Name	Position
David Paull	Executive Chairman
Neil Alexander Lithgow	Non-Executive Director
Gan-Ochir Zunduisuren	Non-Executive Director
Achit-Erdene Darambazar	Non-Executive Director
Hannah Banenach	Non-Executive Director
Alexander Ross Passmore	Non-Executive Director
Boldbaater Bat-Amgalan	Non-Executive Director

Substantial Shareholders	shares (m)	%
Tserenpuntsag Tserendamba	3.2	20.0
Nobel Group	2.4	15.0

Year End June 30

Commodity Assumptions	2017A	2018A	2019E	2020E	2021E	2022E	2023E
A$:US$				0.72	0.72	0.73	0.72
Coking Coal (US$/t)				97.68	99.63	101.63	103.66
Premium Fat Coking Coal (US$/t)				146.52	149.45	152.44	155.49
Coking Coal (A$/t)				135.67	137.90	140.17	143.47
Target Price Sensitivity	**0%**	**+10%**	**Change**				



Production Summary	2017A	2018A	2019E	2020E	2021E	2022E	2023E
Okvoot							
Ore Milled (kt)	0	0	0	0	0	3,500	4,000
Production (kt Fat Coal)	**0**	**0**	**0**	**0**	**0**	**3,080**	**3,520**
Cash Cost (US$/t)	0.00	0.00	0.00	0.00	0.00	83.33	83.63
AISC ($US/t)	0.00	0.00	0.00	0.00	0.00	145.32	146.38
GROUP ATTRIBUTABLE							
Production (kt Fat Coal)						**3,080**	**3,520**
Cash Costs (A$/t)						**94.70**	**95.03**
Sustaining All In Costs (US$/t)						**145.32**	**146.38**
Realised Price (US$/t)						**101.63**	**103.66**

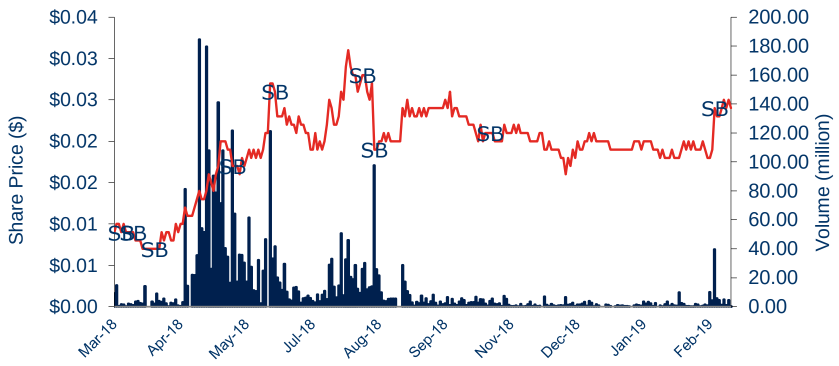
Profit & Loss (A$m)	2017A	2018A	2019E	2020E	2021E	2022E	2023E
Sales Revenue	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**635.3**	**742.4**
Other Income	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Operating Costs	0.0	0.7	0.0	0.0	0.0	479.7	552.7
Exploration Exp.	2.0	2.6	0.6	0.7	0.7	0.7	0.7
Corporate/Admin/Other	1.8	3.2	4.2	4.0	4.0	4.1	4.1
EBITDA	**(3.8)**	**(6.3)**	**(4.8)**	**(4.7)**	**(4.7)**	**150.9**	**185.0**
Depn & Amort	0.0	0.0	0.0	0.0	0.0	35.0	40.9
EBIT	**(3.8)**	**(6.3)**	**(4.8)**	**(4.7)**	**(4.7)**	**115.9**	**144.1**
Interest	1.1	0.6	(0.3)	0.7	10.7	15.9	6.5
Operating Profit	**(4.9)**	**(7.0)**	**(4.5)**	**(5.5)**	**(15.5)**	**100.0**	**137.6**
Tax expense	0.0	(0.0)	(1.3)	(1.6)	(4.6)	30.0	41.3
FX Adjustment	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Abnormals	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minorities	4.6	0.0	0.0	0.0	0.0	0.0	0.0
NPAT	**(4.9)**	**(6.9)**	**(3.1)**	**(3.8)**	**(10.8)**	**70.0**	**96.3**
Normalised NPAT	**(9.4)**	**(6.9)**	**(3.1)**	**(3.8)**	**(10.8)**	**70.0**	**96.3**

Cash Flow (A$m)	2017A	2018A	2019E	2020E	2021E	2022E	2023E
Operating Cashflow	**-1.4**	**-3.7**	**-5.0**	**-2.8**	**7.4**	**148.4**	**153.5**
- Capex (+asset sales)	0.0	0.0	0.0	-127.3	-253.8	-4.0	-4.0
- Exploration	-1.9	-1.2	-1.8	-2.0	-2.0	-2.0	-2.0
Free Cashflow	**-3.3**	**-4.9**	**-6.9**	**-132.1**	**-248.4**	**142.4**	**147.5**
- Dividends (ords & pref)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Equity raised	0.3	13.0	12.7	45.1	63.4	0.0	0.0
+ Debt drawdown (repaid)	2.9	-0.6	0.0	95.5	190.3	-143.2	-142.6
+ Other	0.0	-0.4	-0.7	0.0	0.0	0.0	0.0
Net Change in Cash	**-0.1**	**7.1**	**5.1**	**8.5**	**5.4**	**-0.8**	**4.9**
Cash at End Period	0.4	7.5	12.6	21.2	26.5	25.7	30.6
Net Cash/(LT Debt)	**-8.9**	**4.1**	**9.2**	**-77.8**	**-262.7**	**-120.3**	**27.1**

Balance Sheet (A$m)	2017	2018A	2019	2020	2021	2022	2023
Cash	0.4	7.5	12.6	21	27	26	31
Total Assets	37	45	51	188	449	418	387
Total Debt	9.4	3.4	3.4	98.9	289.2	146.0	3.4
Total Liabilities	10.8	4.2	4.2	99.7	290.0	146.8	4.2
Shareholders Funds	26	41	47	89	159	272	383

Ratios							
Net Debt/Equity (%)	na	na	na	na	na	na	na
Interest Cover (x)	na	na	na	na	na	7.3	22.2
Return on Equity (%)	na	na	na	na	na	25.8	25.1

Recommendation History



Date	Type	Target Price	Share Price	Recommendation	Return
08 Jan 18	Research Note	na	0.01		
01 Feb 18	Hot off the Press	na	0.01	SB	0.0%
16 Feb 18	Hot off the Press	na	0.01	SB	0.0%
15 Mar 18	Hot off the Press	na	0.01	SB	0.0%
22 Mar 18	Hot off the Press	na	0.01	SB	-18.2%
04 Apr 18	Resources Review Bool	na	0.01	SB	0.0%
21 May 18	Hot off the Press	na	0.02	SB	133.3%
14 Jun 18	Hot off the Press	na	0.03	SB	28.6%
06 Aug 18	Research Note	na	0.03	SB	0.0%
13 Aug 18	Hot off the Press	na	0.02	SB	-25.9%
19 Oct 18	Resources Review Bool	na	0.02	SB	0.0%
01 Mar 19	Hot off the Press	na	0.02	SB	5.0%
	Current Share Price		0.02		14.3%
05 Oct 18	Resources Review Bool	2.45			
	Current Share Price		0.02		

Stock recommendations: Investment ratings are a function of Patersons expectation of total return (forecast price appreciation plus dividend yield) within the next 12 months. The investment ratings are Buy (expected total return of 10% or more), Hold (-10% to +10% total return) and Sell (> 10% negative total return). In addition we have a Speculative Buy rating covering higher risk stocks that may not be of investment grade due to low market capitalisation, high debt levels, or significant risks in the business model. Investment ratings are determined at the time of initiation of coverage, or a change in target price. At other times the expected total return may fall outside of these ranges because of price movements and/or volatility. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. This Document is not to be passed on to any third party without our prior written consent.

1300 582 256
patersons@psl.com.au
www.psl.com.au

Patersons Securities Limited Disclosure of Interest

Patersons Securities and its respective officers and associates may have an interest in the securities or derivatives of any entities referred to in this material

Patersons Securities does, and seeks to do, business with companies that are the subjects of its research reports.

Patersons Securities Corporate Relationship Disclosure

88E	Patersons Securities have acted for 88 Energy Limited (88E) within the past two years and have received fees for these services.
AKM	Patersons Securities have acted for Aspire Nmining Limited (AKM) within the past two years and have received fees for these services.
AXL	Patersons Securities have acted for Axsesstoday Limited (AXL) within the past two years and have received fees for these services.
BOE	Patersons Securities have acted for Boss Resources Limited (BOE) within the past two years and have received fees for these services.
BRB	Patersons Securities have acted for Breaker Resources NL (BRB) within the past two years and have received fees for these services.
BSX	Patersons Securities have acted for Blackstone Minerals Limited (BSX) within the past two years and have received fees for these services.
BUX	Patersons Securities have acted for Buxton Resources Limited (BUX) within the past two years and have received fees for these services.
CSS	Patersons Securities have acted for Clean Seas Seafood Limited (CSS) within the past two years and have received fees for these services.
GLL	Patersons Securities have acted for Galilee Energy Limited (GLL) within the past two years and have received fees for these services.
IBG	Patersons Securities have acted for Ironbark Zinc Limited (IBG) within the past two years and have received fees for these services.
NUS	Patersons Securities have acted for Nusantara Resources (NUS) within the past two years and have received fees for these services.
PEX	Patersons Securities have acted for Peel Mining Limited (PEX) within the past two years and have received fees for these services.
RCL	Patersons Securities have acted for ReadCloud Limited (RCL) within the past two years and have received fees for these services.
STN	Patersons Securities have acted for Saturn Metals Limited (STN) within the past two years and have received fees for these services.
SYA	Patersons Securities have acted for Sayona Mining Limited (SYA) within the past two years and have received fees for these services.
VMY	Patersons Securities have acted for Vimy Resources Limited (VMY) within the past two years and have received fees for these services.
WKT	Patersons Securities have acted for Walkabout Resources Ltd (WKT) within the past two years and have received fees for these services.
XTE	Patersons Securities have acted for Xtek Limited (XTE) within the past two years and have received fees for these services.

1300 582 256
patersons@psl.com.au
www.psl.com.au

Research

Cathy Moises - Head of Research	Phone:	(+61 3) 9242 4030	Email:	cmoises@psl.com.au
James Farr - Associate Analyst	Phone:	(+61 8) 9263 1215	Email:	jfarr@psl.com.au
Daniel Veasey - Research Assistant	Phone:	(+61 8) 9225 2818	Email:	dveasey@psl.com.au

Strategy & Economics

Greg Galton - Director Private Wealth	Phone:	(+61 8) 9263 1612	Email:	ggalton@psl.com.au

Commodities

Cathy Moises - Head of Research	Phone:	(+61 3) 9242 4030	Email:	cmoises@psl.com.au
Cam Hardie - Analyst	Phone:	(+61 3) 9242 4153	Email:	chardie@psl.com.au
Xavier Braud - Analyst	Phone:	(+61 8) 9225 2813	Email:	xbraud@psl.com.au

Industrials

Martyn Jacobs - Analyst	Phone:	(+61 3) 9242 4153	Email:	mjacobs@psl.com.au
Phil Carter - Analyst	Phone	(+61 8) 9225 2819	Email:	Pcarter@psl.com.au
Allan Franklin - Analyst	Phone	(+61 3) 9242 4155	Email:	afranklin@psl.com.au

Institutional Dealing

Dan Bahen	Phone:	(+61 8) 9263 1274	Email:	dbahen@psl.com.au
Michael Brindal	Phone:	(+61 8) 9263 1186	Email:	mbrindal@psl.com.au
Tom Bahen	Phone:	(+61 8) 9263 1180	Email:	tbahen@psl.com.au
Artie Damaa	Phone:	(+61 2) 8238 6215	Email:	adamaa@psl.com.au
Paul Doherty	Phone:	(+61 3) 8803 0108	Email:	pdoherty@psl.com.au
Chris Kelly	Phone:	(+61 3) 9242 4078	Email:	ckelly@psl.com.au
Jeremy Nugara	Phone:	(+61 3) 8803 0166	Email:	jnugara@psl.com.au
Phil Schofield	Phone:	(+61 2) 8238 6223	Email:	pschofield@psl.com.au
Sandy Wylie	Phone:	(+61 8) 9263 1232	Email:	swylie@psl.com.au

Disclaimer: Patersons believes that the information or advise (including any financial product advice) contained in this report has been obtained from sources that are accurate at the time of issue, but it has not independently checked or verified that information and as such does not warrant its accuracy or reliability. Except to the Extent that liability cannot be excluded. Patersons accepts no liability or responsibility for any indirect loss or damage caused by any error in or omission from this report. You should make and rely on your own independent inquiries. If not specifically disclosed otherwise, investors should assume that Patersons is seeking or will seek corporate finance business from the companies disclosed in this report.

Warning: This report is intended to provide general securities advice, and does not purport to make any recommendation that any securities transaction is appropriate to your particular investment objectives, financial situation or particular needs. Prior to making any investment decision, you should assess, or seek advice from your adviser, on whether any relevant part of this report is appropriate to your financial circumstances and investment objectives.

Disclosure: Patersons, its directors and/or employees may earn brokerage, fees, commissions and other benefits as a result of a transaction arising from any advice mentioned in this report. Patersons as principal, its directors and/or employees and their associates may hold securities in the companies the subject of this report, as at the date of publication. These interests do not influence Patersons in giving the advice contained in this report. Details of any interests may be obtained from your adviser. Patersons as principal, its directors and/or employees and their associates may trade in these securities in a manner which may be contrary to recommendations given by an authorised representative of Patersons to clients. They may sell shares the subject of a general 'Buy' recommendation, or buy shares the subject of a general 'Sell' recommendation.

Stock recommendations: Investment ratings are a function of Patersons expectation of total return (forecast price appreciation plus dividend yield) within the next 12 months. The investment ratings are Buy (expected total return of 10% or more), Hold (-10% to +10% total return) and Sell (> 10% negative total return). In addition we have a Speculative Buy rating covering higher risk stocks that may no be of investment frage due to low market capitalisation, high debt levels, or significant risks in the business model. Investment ratings are determined at the time of initiation of coverage, or a change in target price. At other times the expected total return may fall outside these ranges because of price movements and/or volatility. Such interim deviations from specified rnages will be permitted but will become subject to review by Research Management. This Document is not to be passed to any third party without prior written consent.

Patersons Securities Limited ABN 69 008 896 311 AFSL 239 052