Rex Minerals (RXM AU)

Permitted, 27+ year, low-cost Cu project in Aus.

Rex Minerals' fully permitted Hillside Cu-Au project in South Australia plans to produce ~35ktpa Cu and 24koz gold per annum over its *initial Stage 1* 14-year mine life at an AISC of US$1.60/lb. At spot Cu prices, we estimate this would generate ~$270m EBITDA annually. Hog Ranch in Nevada, US, with ~2.3MOz gold Resources, could be a funding source. We initiate with a Buy recommendation and a $0.75ps SOTP based target price.

Hillside – production potential for 27+ years

The Hillside *Stage 1* Feasibility update in 2020, reported an $NPV_{5\%}$ of A$501m, IRR 16%, using US$3.00/lb Cu, US$1,550/oz Au and 0.70 A$/US$ exchange. We estimate that the announced Stage 2 Reserves of 988kt contained copper, up 94% from Stage 1 Reserves, materially bolster the project's economics and will assist funding.

Hog Ranch, Nevada – 2.26Moz gold and counting…

RXM purchased the Hog's Ranch gold project in 2019 for $900k in scrip consideration and has since grown the Resource base to 2.26Moz @ 0.43g/t. The grade is comparable to other gold heap leach projects in proximity. A 2020 Scoping Study on only a small segment of Hog Ranch reported a $NPV_{5\%}$ of US$75m and 40% IRR.

Hillside – Australia's next copper mine?

Subject to funding, RXM's Hillside project is shovel ready. With *Stage 1* Feasibility Study AISC estimates of US$1.60/lb, we expect the project could manage 50% gearing. Monetisation of Hog Ranch could considerably close the equity gap. Our Hillside *Stage 1* $NPV_{8\%}$ is $306m, which increases to $792m at spot copper prices (US$9,300/t).

Buy, 12-month target price of $0.75ps, 102% upside

We expect the markets appetite for fully permitted copper mines in low-risk jurisdictions will remain strong and will assist the financing of the Hillside project. Further, we estimate RXM is trading at around 0.5x its Hillside *Stage 1* only NPV, compared to peers that are trading much higher. We expect this discount will unwind medium term.

Mining

12-month rating	Buy
Target Price (A$ps)	0.75
Previous TP (A$ps)	n/a
Share Price (A$ps)*	0.37
Upside	102%
*Priced on 20/7/21	
BBG: RXM AU	

Trading data & key metrics

52-week range	12 - 45.5
Market Cap:	156
Shares on issue (m):	422
Avg daily volume (k):	1,142
Avg. daily volume -$k	279

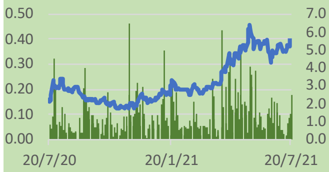
Directors:

Mr Ian Smith	NEC
Mr Richard Laufmann	CEO
Ms Amber Rivamonte	ED - Fin.
Mr Ronald Douglas	NED
Mr Greg Robinson	NED

Substantials:

Ellerston	5.1%

Share price and volume:



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Specific disclosure:
Acova Capital and/or its principals own shares in RXM at the time of this report.

Key financials - A$m

Year end Jun	2020A	2021F	2022F	2023F	2024F	2025F	2026F	2027F
Revenue	0	0	0	0	0	344	344	344
EBITDA	-3	-15	-15	-15	-15	170	170	170
Underlying earnings	-5	-11	-11	-12	-19	70	71	72
Reported Earnings	-5	-11	-11	-12	-19	70	71	72
Underlying EPS (A¢ ps)	-1	-2	-2	-1	-2	8	8	8
Underlying P/E	nm	nm	nm	nm	nm	4.9	4.8	4.7
Underlying EV / EBITDA	nm	nm	nm	nm	nm	3.7	3.0	2.3
Price / Free cash flow Yield	-29.6	-14.9	-18.4	-1.1	-1.1	3.1	3.0	3.0
Gearing (ND/ND + E)	11%	nm	nm	26%	65%	50%	32%	11%

Source: Company accounts, Acova estimates. A$m unless otherwise stated. "nm" = not meaningful.

All reference to $ in this report is Australian dollars unless otherwise stated.

Please see the last page for important disclosures regarding this report.

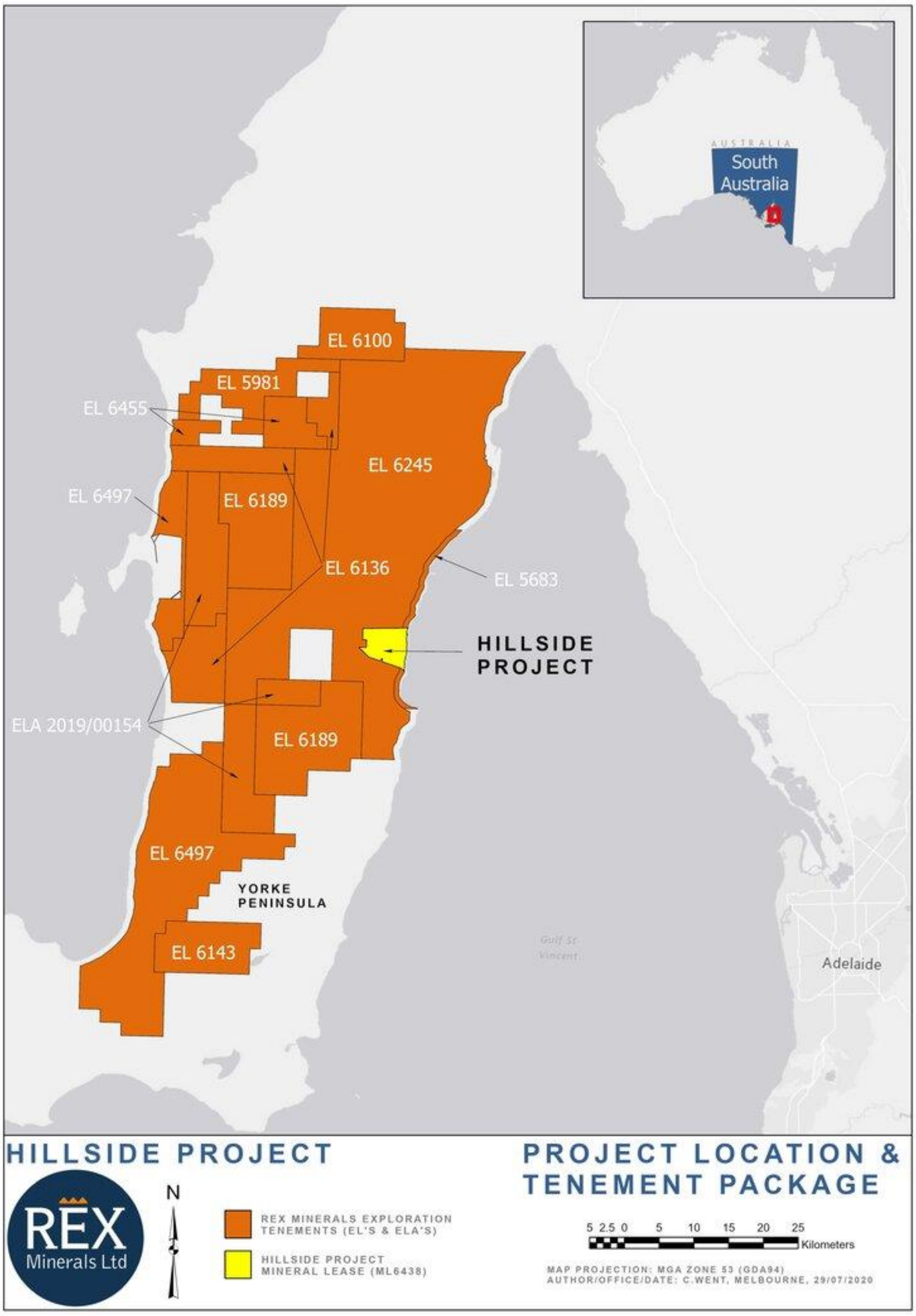
The story thus far – copper and gold

Hillside copper-gold

The Hillside project is in the Australian state of South Australia on the mid-eastern coast of the Yorke Peninsula, west of Adelaide and close to the Spencer Gulf and Gulf St Vincent. It is within the Yorke Peninsula Council (YPC) local government area, approximately 165km by road from Adelaide, 12km south of the town of Ardrossan and 3km north of Pine Point, South Australia. It is also only 60km from Adelaide by direct water or air transit.

Hillside Resources contain 1,968kt Cu @ 0.58% and 1,416koz Au @ 0.13g/t.

Figure 1 – Project location



Source: Company

Hillside background

In 2011 Rex Minerals completed a conceptual study targeting a 7.5mtpa operation increasing up to 15mtpa, producing both a copper-gold and iron ore concentrate. This project advanced into a Pre-Feasibility Study, which was announced in late 2012, focusing on the larger scale 15mtpa operation. Subsequent work leading into a Feasibility Study continued this focus until August 2014, when declining commodity prices, particularly for iron ore, prompted RXM to change its focus towards an initial copper-gold only project with lower capital investment and higher copper head grades. This work was termed the Extended Feasibility Study (EFS), released in 2015.

RXM's Hillside project in Sth Australia has almost 2mt Cu metal in Resources

The Resources base

Hillside's current Resource base is 337mt @ 0.6% copper and 0.14g/t gold containing almost 2mt copper metal and around 1.4moz gold.

Figure 2 – RXM – Hillside Resources – May 2015

		Tonnes (Mt)	Copper (%)	Gold (g/t)	Contained Copper (kt)	Contained Gold (koz)
Oxide Copper	Measured	16	0.54	0.23	86.4	118.3
	Indicated	4	0.51	0.13	20.4	16.7
	Inferred	0.2	0.7	0.2	1.4	1.3
Secondary Sulphide	Measured	9	0.61	0.2	54.9	57.9
	Indicated	3	0.55	0.12	16.5	11.6
	Inferred	0.1	0.6	0.1	0.6	0.3
Primary Sulphide	Measured	47	0.54	0.16	253.8	241.8
	Indicated	144	0.59	0.13	849.6	601.9
	Inferred	114	0.6	0.1	684	366.5
Total		**337.3**	**0.6**	**0.14**	**1,967.6**	**1,416.2**

Source: Company

Hillside Reserves support 35ktpa Cu and 24kozpa Au production for ~14 years

Reserves at Hillside contained within a large open cut are 182mt @ 0.54% copper and 0.14g/t gold, for 988kt copper and 823koz gold. These figures are the basis for the EFS completed in 2015 targeting annual production of 35kt copper in concentrate and 24koz gold for an initial 14-year mine life.

Figure 3 – Hillside Reserves – July 2021

Category	Tonnes (Mt)	Copper (%)	Gold (g/t)	Contained Copper (kt)	Contained Gold (koz)
Proven	58	0.52	0.16	301	308
Probable	123	0.56	0.13	687	515
Total	**182**	**0.54**	**0.14**	**988**	**823**

Source: Company

Hillside – Enhanced Feasibility Study (EFS) – 2015.

The summary of the EFS released to the market in May 2015 is shown in the Figures below. Assumed long term copper and gold prices in the study were US$3.00/lb and US$1,250/oz respectively. The A$/US$ long term assumption in the study was 0.70. These have since been updated.

NPV and IRR of $188m and 14% was based on US$3/lb Cu & US1,250/oz Au prices

Figure 4 – Life of Mine metrics from the 2015 EFS

Project Revenue	A$4,264m
Operating Costs	A$2,672m
Pre-tax project operating cash flows	A$1,593m
Pre-production capital	A$480m (US$360m)
C1 cash costs (includes by-product credits)	US$1.61/lb
Estimated average workforce numbers (during production)	~500
Pre-tax NPV (8%)	A$309m
Post-tax NPV (8%)	A$188m
Internal Rate of Return (IRR)	14%

Source; RXM Hillside EFS – May 2015

A breakdown of the pre-production capex is shown in Figure 5, which includes $66m for a mining fleet.

Pre-production capex of A$480m assumed owner-operater mining

Figure 5 – Pre production capital – 2015 (since updated)

Construction (Plant, Equipment, TSF)	A$206m
Mining Fleet	A$66m
Pre-strip	A$80m
Other Infrastructure and Utilities	A$21m
Owners costs, Surface Works, First Fills, Spares, Other	A$67m
Sub-Total	**A$440m**
Contingency	A$40m
Total Up-front Capital	**A$480m (US$360 m)**

Source; RXM Hillside EFS – May 2015

Production costs of ~$29/t ore include ~$6.50/t gold credits, and equates to a C1 of US$1.61/lb Cu produced.

EFS operating costs reported were $29/t or C1 of US$1.61/lb Cu produced

Figure 6 – Operating costs metrics – 2015 EFS

Strip Ratio (after initial pre-strip)	6.7:1 (waste:ore)
Average Mining Cost per tonne (LOM)	A$2.24/t
Average Mining Cost per ore tonne (LOM) (after initial pre-strip)	A$17.75/t
Processing Cost per tonne	A$9.15/t
Other Operating (G&A) Costs per tonne	A$1.92/t
Average transport Costs per ore tonne of concentrate	A$2.07t
Treatment and Refining Costs per ore tonne	A$4.34/t
By-product Credit per tonne	(A$6.52/t)
Average Total Operating Costs per tonne (after pre-strip)	**A$28.71/t**
C1 Cash Cost (includes by-product credits)	**US$1.61/lb**

Source; RXM Hillside EFS – May 2015

EFS Update – June 2020 – meaningful cost revisions

In parallel with Hillside key Environmental approval in July 2020, the company released updated capital and operating costs assumptions for the Hillside project. They key changes compared to the 2015 study include:

- Pre-production capex increased 22% to $585m, up from $480m.

- C1 cost decreased by 14% to US$1.38/lb, from US$1.61/lb in 2015.
- Base case Cu price assumption of US$3.00/lb - unchanged
- Base case gold price assumption increased 24% to US$1,550/oz compared to US$1,250/oz in 2015.
- A$/US$ exchange rate assumption of 0.70 unchanged
- Annual throughputs of 6mtpa and production of 35ktpa Cu and 24koz gold - unchanged.

The key financial output changes of the 2020 revisions compared to the 2015 EFS include:

- An increase in the NPV to $501m (but using a 5% discount rate) compared to $188m in the 2015 study (post tax).
- An increase in the IRR to 16% from 14% (post tax).

RXM received its environmental approval for Hillside in July 2020

Hillside's all-important environmental approval

RXM announced it had received its Notification of approved Program for Environmental Protection (PEPR) for Mineral Lease 6438 in July 2020. The granting of the PEPR is the key overrising environmental approval for the project paving the way towards the next steps of financing, then ultimate development.

The PEPR has relatively standard obligations on the company to abide by several related mining activity acts including water disturbance and use, the Native Vegetation Act, Mines and Works Act and the Work, Health and Safety Act. Standard landholder access provisions must be followed prior to commencing operations on any effect land. However, given RXM own almost all the land they intend to operate on under the submitted mining plan, we don't expect this will be an issue. The PEPR stipulated a $34.2m bond must be paid prior to commencing mining operations.

Monetising Hog Ranch and fleet financing could minimise equity dilution

Next steps – how does this get funded?

Hillside's capex estimate is $585m, This includes $50m of contingency (as it should) and $158m of mining fleet costs. Starting simply, if we assume 50/50 debt equity, that will equate to up to $300m equity and similar debt levels. This is before mining fleet financing is explored and potentially a sale of Hog Ranch gold project in the US.

Mining fleet financing could reduce capital costs to $440m, which sticking to the 50/50 debt/equity assumption, could reduce the equity component to $220m, while crystallising value from Hog Ranch, could bring the equity component to significantly less than $200m.

We further discuss our Hillside valuation later in this report.

Hog Ranch – ~2.3MOz gold and counting…

The Hog Ranch Property is in Washoe County in north-west Nevada, approximately 45km from the California border and 91km from the Oregon border. It is located approximately 270km north of Reno by road. Year-round access to the Property is via a well maintained gravel road off county road 34N. The Property comprises 1035 unpatented mining claims on Federal Land for a total area of approximately 8,572 hectares (21,182 acres).

The Bells Project is situated at the southern end and the Krista Project is situated at the northern end of the Mining Claims that make up the Hog Ranch Property. Other deposits and prospects which extend in a north-westerly direction from the Krista Project extend from Cameco to Airport and then all the way to the recently staked Gillam Prospect.

The Property area lies approximately 1900m above sea level on hilly terrain. The Property area climate is classified as arid continental type. The average summer temperature is approximately 18 degrees Celsius and the average winter temperature is approximately -1 degree Celsius. In a year, the average precipitation is approximately 300 mm.

Hog Ranch is located in the very mining friendly jurisdiction of Nevada, US.

Figure 7 – Location of Hog Ranch

Source: Company

Resource growth at Hog Ranch has been impressive since RXM acquired the asset in August 2019, and now stands at ~2.26Moz gold – Figure 8.

Hog Ranch contains 2.26MOz of gold in Resources

Figure 8 – Hog Ranch Resources

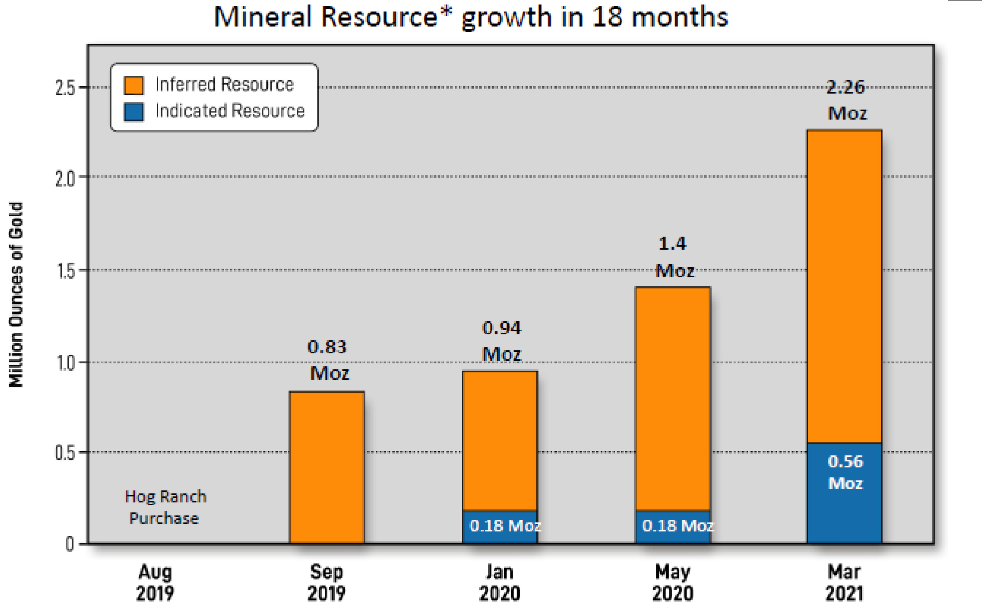
	Resource Category	Ore mt	Gold grade g/t	Contained gold (koz)
Krista Oxide	Indicated	11	0.48	170
	Inferred	110	0.39	1,380
Bells Oxide	Indicated	24	0.50	390
	Inferred	13	0.40	170
Cameco & Airport Sulphide	Inferred	6.7	0.70	150
	Total	**165**	**0.43**	**2,260**

Source: Company – announcement 23 March 2021

RXM has grown this Resources after acquiring the project in August 2019 at an exploration cost of less than US$1/oz gold.

RXM has grown Hog Ranch to 2.3Moz in around 18 months

Figure 9 – Hog Ranch Resource growth



Source: Company

Bells Scoping Study

RXM released the results of a Scoping Study for the Bells Project which contains 560koz gold in Resources in June 2020. Using a gold price of US$1,550/oz, the 8.5 year heap leach project produced ~39koz gold per annum and reported an IRR of 40%, $NPV_{5\%}$ of US$75m, US$58m in capex and average AISC's of US$902/oz.

The Bells project contains only 560koz of the total 2.26Moz Hog Ranch total Resource. However, Bells does have the highest proportion of Indicated Resources (Figure 8).

While compelling, we view the Bells Project Scoping Study of merely demonstrative of the potential of the overall Hog Project. If similar studies were achievable over much of the Hog Ranch Project, it could ultimately be a much larger project than that anticipated in the initial Bells Scoping Study.

Hog Ranch – valuation discussion

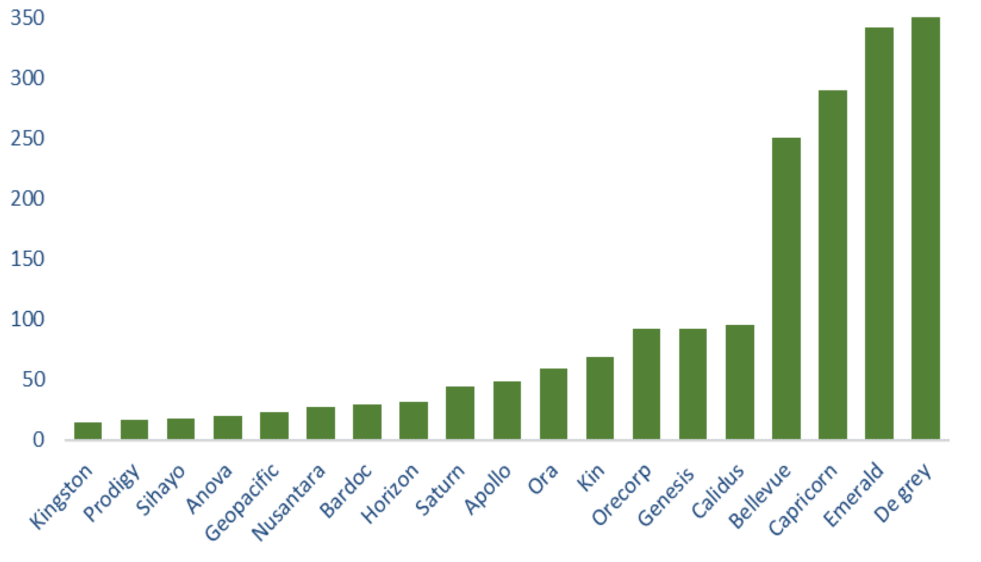
Hog Ranch has several peers in the region which provide compelling valuation comparisons. The region is dominated by low grade, high volume gold resources near surface amenable to low capex heap leach operations. Given the project is located within a mining complex the area has a track record of operations and development giving us some comfort that permitting would be forthcoming pending successful economic studies.

In 2019, Canadian listed Americas Gold and Silver company released a Technical Report for its Relief Canyon project located in Nevada. The project economics are comparable to RXM's Bells Scoping study. Mined ore grades at Relief Canyon are planned to average 0.65g/t over the six-year mine life producing an average of 85koz per year. While this grade is higher than the 0.50g/t expected to be mined at RXM's Bells project, Relief Canyon strip ratio is 3.8 versus Bells at 0.5x. The AISC at Relief Canyon is forecast to be US$770/oz versus Bells Scoping Study of US$902/oz. While there are differences in the respective projects, the detailed technical and cost work that has gone into several comparable mines in the region de-risks the Hog Ranch value proposition in our view.

An analysis of a broad group of ASX listed explorers and developers gives us a sense on the potential value of Hog Ranch's current Resource base.

ASX listed gold developers trade on a large range of EV/zo Resources

Figure 10 – EV/Oz Resources (A$/oz)



Source: Various company reports, Iress, Acova. Priced on 14 July 2021

If we apply a value of $50/oz gold Resources to Hog Ranch's 2.26Moz, we arrive at a valuation of $113m. The $NPV_{5\%}$ of the Scoping Study at Bells was US$78m. While Bells is only a small part of the overall Resource it does however remain subject to more detailed economic studies as well as technical, permitting, funding, construction, and commissioning risks. However, we expect our valuation could increase rapidly pending further exploration success and associated potential for increases Resources.

Hillside – Australia's next copper mine?

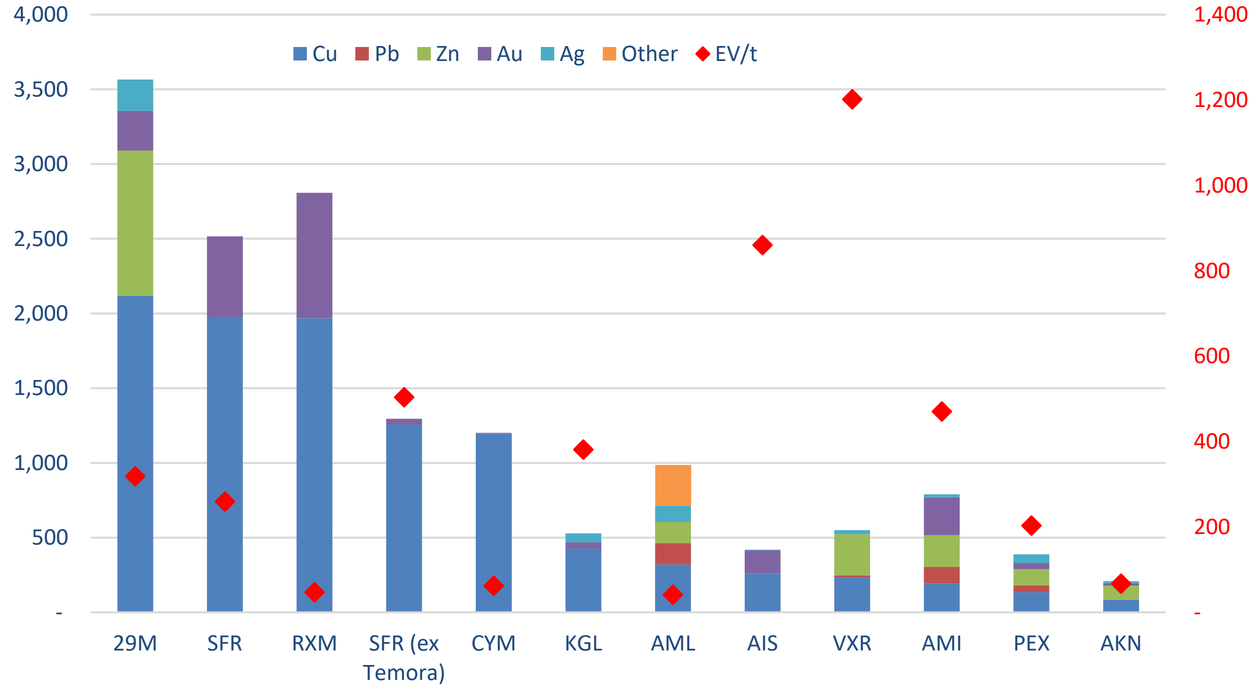
RXM's Hillside Reserves and Resources are impressive when stacked up against ASX listed peers. While grades are low relative to comparative Australian operations, the large throughput rates relative to most other Australian copper miners should allow the project to achieve the economies of scale required to hit its projected US$1.60/lb AISC cost.

Hillside's Resources, presented as copper equivalent tonnes of metal, and several ASX listed peers is summarised in Figure 11 – using pricing assumptions shown in Figure 12.

RXM has more than 2.5Mt of contained Cu equivalent metal in Resources

On the right hand-axis in Figure 11 we have put EV/t copper equivalent metal. RXM is trading at around $53/t copper equivalent metal contained in company Resources, relative to several peers trading at much higher valuations.

Figure 11 – Group Resources – RXM Peers, sorted by Cu metal (kt Cu equivalent metal)



Source: Various company reports, Iress, Acova's pricing assumptions – Figure 12. Priced on 20 July 2021.

Figure 11 includes contained metal in Resources at all group operations for each respective company. For example, the RXM in Figure 11 includes the Hillside copper-gold project as well as the 2.3MOz gold at Hog Ranch in Nevada – converted into copper equivalent tonnes.

Our LT Cu price of A$9,722/t appears conservative vs spot of >A$12,500/t

Figure 12 – Acova's LT price & exchange rate assumptions

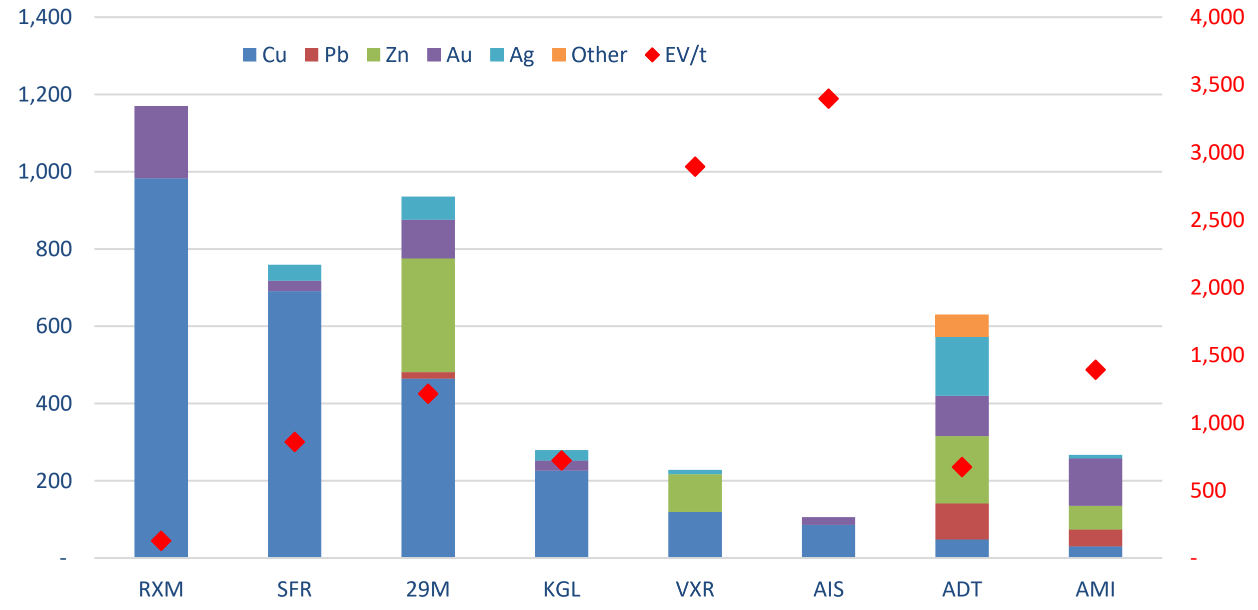
Base metals	**US$/t**	**US$/lb**	**A$/US$**	**A$/t**
Copper	7,000	3.18	0.72	9,722
Lead	2,200	1.00	0.72	3,056
Zinc	2,600	1.18	0.72	3,611
Precious metals		**US$/oz**	**A$/US$**	**A$/oz**
Gold		1,600	0.72	2,222
Silver		20	0.72	28

Source: Acova

RXM Hillside project contains around 500kt of Cu metal in Reserves + gold

A similar analysis but using group Reserves, as opposed to Resources is shown in Figure 13. As there are no Reserves at RXM's Hog Ranch project, and several of the companies included in Figure 11 do not have Reserves yet, the ASX listed peer comparisons in Figure 13 is a smaller subset than those shown in Figure 11. Again, the prices used to convert to copper equivalent are those shown in Figure 12.

Figure 13 – Group Reserves – RXM Peers, sorted by Cu metal (kt Cu equivalent metal)



Source: Various company reports, Iress, Acova's pricing assumptions – Figure 12. Priced on 20 July 2021.

The right-hand axis in Figure 13 is the EV/t Reserves of copper equivalent, with RXM trading at around $127/t copper equivalent metal in Reserves compared to several peers trading much higher. The obvious limitation to this metric is that RXM is not in production, whereas its nearest ASX listed peers – at least on these metrics – SFR and 29M, are in production. If we crudely added the capital requirements of $585m to get RXM into production, its adjusted EV would increase to ~$717m, equating to A$627/t Reserve (Figure 14).

Even adjusted for capex, RXM is a stand-out on an EV/t copper in Reserves

Figure 14 – Adjusted EV/tonne Reserves

Code	EV	EV/t Reserve	2-yr Growth Capex	Adj EV	Adj. EV/t Reserve
	$m	$/t Cu Equiv.	$m	$m	$/t Cu Equiv.
RXM	149	127	585	734	627
KGL	201	721	200	401	1,437
ADT	424	673	240	665	1,054
OZL	6,949	992	460	7,409	1,058
29M	1,136	1,214	35	1,171	1,252
SFR	652	1,223	350	1,002	1,879
AMI	372	1,392	25	397	1,485
VXR	660	2,894	212	872	3,824
AIS	360	3,396	50	410	3,868

Source: Acova, Iress, various company reports, Iress

In Figure 14, we have added our estimates of growth capital for those companies in Figure 13 to arrive at an adjusted EV. While we are adding another variable, the adjusted EV/tonne of Reserve shown in the last column of Figure 14 is a more like-for-like metric than the EV/t Reserve shown on the right hand axis in Figure 13.

Compelling economic study…with upside

It is the Hillside Feas. Study that provides the most compelling value argument

While we believe the metrics in Figures 11, 13 and 14 provide a high-level compelling value argument within the context within the ASX listed copper space, it is the more project specific factors that provide the most compelling valuation perspectives in our view. Two ASX listed comparisons planning to develop copper projects in Australia are KGL Resources (KGL – not rated) and Venturex (VXR – not rated). While the NT government has approved the mine plan for KGL's Jervois project, a full feasibility study has not been completed. While VXR's Sulphur Springs copper-zinc project in WA completed a DFS in 2018, the project remains unfunded.

At 0.5x NPV/EV RXM is inexpensive relative to Cu developer peers KGL & VXR

Figure 15 – EV/NPV of select group of mine developers

Company	Code	EV A$m	NPV (8%) post tax - $m	EV/NPV x
Adriatic Metals	ADT	424	836	0.5
Aeon Metals	AML	41	230	0.2
KGL Resources	KGL	201	99	2.0
Venturex	VXR	660	328	2.0
Rex Minerals	RXM	149	306	0.5

Source: Company reports, Acova. Priced on 20 July 2021

KGL Resources (KGL) released the PFS results for its Jervois project located in the Northern Territory in December 2020. The PFS envisaged processing 1.6mtpa for around 7-8 years producing ~30kt of copper per annum with gold and silver by-product credits. Assuming A$9,561/t, A$2,606/oz and A$32/oz for copper, gold and silver respectively, the PFS reported a pre-tax $NPV_{8\%}$ of A$177m and pre-tax IRR of 23%. We discuss KGL more in the next section.

Venturex (VXR) certainly got a new lease on life when Bill Beament (formerly of Norther Star) joined the group in an executive role and invested $9m in a placement announced in February 2021. Post announcement of Mr Beament's interest and of him joining the group, VXR's share price jumped more than four-fold in the succeeding weeks and now has a fully diluted market capitalisation of around $673m (30/4/21). After vending out up to 80% of its Whim Creek project, the core focus of VXR is now the 100% owned Sulphur Springs copper-zinc project located in Western Australia. Despite a compelling DFS completed in 2018 it remains undeveloped. We discuss this more in the next section.

Comparing valuations

Using the PFS and DFS released by KGL and VXR respectively and our pricing assumptions (Figure 12), we estimate post-tax NPV's of $99m and $328m respectively. These NPV's are both more than 2.0x the EV's. This compares to RXM which is trading around 0.5x our estimated Hillside NPV, which seems extremely undervalued once you consider RXM has 2.26Moz of gold Resources at Hog Ranch as well as the Hillside project.

For a broader peer group in Figure 15, we have included Aeon Metals and Adriatic Metals, both of which are largely single asset companies with an economic study completed on their core assets. The NPV's shown in Figure 15 are based on the physicals from the respective economic studies but are using a consistent set of price and exchange assumptions (Figure 12) as well as discount rates.

Adriatic Metals (ADT) is developing its Vares silver dominant polymetallic project located in Bosnia and Herzegovina. The company released the PFS in October 2020. Based on Acova's pricing assumptions (Figure 12). The Vares project contains 8% copper by metal and given its geographic location we omit it from further analysis.

Aeon Metals' (AML) Walford Creek project located in Queensland has 40mt of Resources containing Cu, Pb, Zn, Ag and Co. In October 2019, AML released a Scoping Study with an 11-year mine life, AISC of US$1.56/lb Cu equivalent, a post-tax $NPV_{8\%}$ of $431m and IRR of 34%. Since then, the company has changed strategy on the copper-cobalt project considering a simpler processing route and polymetallic concentrate, making the previous DFS results largely redundant. Hence, we omit it from further analysis.

KGL Resources (KGL)

KGL is a stand-out in Figure 15 in terms of EV/NPV at 2.0x, or an EV implying the stock is trading at a ~100% premium to our estimated post tax $NPV_{8\%}$ of ~$99m. KGL Resources reported a pre-tax $NPV_{8\%}$ of A$177m in its Jervois Copper Project PFS announcement released in December 2020. Other project PFS parameters are illustrated in Figure 16.

KGL Resources offers investors almost pure copper exposure

Figure 16 – Jervois Project - Key operating & financial metrics

Processing rate and head grade		1.6mtpa @ 2.2% Cu
Average annual production – Cu	Ktpa	30
Average annual production – Ag	Kozpa	893
Average annual production – Au	Kozpa	8.6
Mine life	Years	7.5
Mining inventory	Mt	11.3 @ 2.2% Cu,
Resources	Mt	20.1 @ 2.0% Cu, 32g/t Ag
Pre-production capex	$m	200
Pre-tax $NPV_{8\%}$	$m	177
Pre-tax IRR	%	23.1%
Cu price assumption – long term	US$/t	6,791
Ag price assumption – long term	US$/oz	22.80
A$/US$ - long term		0.71

Source: KGL Resources

Given our pricing assumptions (Figure 12) are very close to those used in the Jervois Scoping Study, our re-modelling of the project returned very similar NPV's and IRR's to those reported by the company in its PFS announcement.

The Jervois Copper Project mine plan was permitted by Australia's NT government in December 2020, clearly a major milestone and de-risking event for the project's development. However, the valuation seems high considering the project remains subject to funding, construction, and commissioning risk.

The company did stress that the project has significant upside as Inferred Resources still account for 44% of Total Resources and a potential upgrade of a significant proportion of these Resources and incorporation in the mine plan could extend the projects mine life to beyond ten years from the current 7.5 years reported in the PFS.

As well as the clear potential to increase the mineral endowment in the mine plan and associated higher returns, we think the high valuation also reflects the markets appetite for copper investments, recent approvals, and tight register with the top four shareholders holding just over 50% of the company.

Venturex (VXR)

VXR completed a DFS for its Sulphur Springs project in 2018 reporting a pre-tax $NPV_{8\%}$ of \$472m and IRR of 51%, assuming a long-term copper price of A\$8,750/t (US\$6,300 @ 0.72 exchange rate) and zinc price of A\$3,646/t. While costs may have inflated since the 2018 study, the spot (20/7/21) copper price of A\$12,500/t is around 43% higher than used in the study.

VXR completed a DFS for Sulphur Springs in 2018 reporting a 51% pre-tax IRR

Figure 17 – Sulphur Springs - Key operating & financial metrics

Processing rate and head grade		1.25mtpa @ 1.4% Cu, 3.6% Zn
Average annual production – Cu	Ktpa	16.25
Average annual production – Zn	Kozpa	37.5
Average annual production – Au	Kozpa	
Mine life	Years	10.3
Mining inventory	Mt	12.6 @ 1.4% Cu, 3.6% Zn
Resources	Mt	17.4 @ 1.4% Cu, 4.3% Zn
Pre-production capex	\$m	169
Pre-tax $NPV_{8\%}$	\$m	472
Pre-tax IRR	%	51%
Cu price assumption – long term	US\$/t	6,300
Zn price assumption – long term	US\$/t	2,625
A\$/US\$ - long term		0.72

Source: Venturex – 2018 DFS Sulphur Springs

VXR updated the capex for to \$212m in April 2020 from the original \$169m estimate. Our pre-tax $NPV_{8\%}$ for VXR is \$496m and pre-tax IRR of 54%. Our post tax $NPV_{8\%}$ and IRR is \$328m and 39% respectively.

The post-tax $NPV_{8\%}$ of \$328m compares to VXR's current (20/7/21) EV of \$660m. At two times the Sulphur Springs NPV, similar to KGL, this appears expensive given outstanding permitting funding, construction and commissioning risks. Of course, on the flipside, this does not take into account upside from potential exploration success and associated increases in mining inventories, mine life and/or production rates.

At spot prices our Hillside Stage 1 only NPV increases to $792m.

All makes for a compelling Rex Minerals valuation

In July 2020, RXM updated its capital and operating costs and reported the Hillside project $NPV_{5\%}$ of $501m and IRR of 16% (post-tax), as outlined in more detail in the first section of this report. Our price deck is relatively consistent with that used in RXM's updated FS. Our discount rate of 8% versus the company's 5% is the primary driver of why our NPV is $306m, versus the $501m reported by the company.

Even so, with a Hillside $NPV_{8\%}$ of $306m versus RXM's EV of $128m, RXM looks appealing value. At spot copper, gold and exchange rates, our NPV increases to $792m.

Further, if we assume Hog Ranch is worth A$50/oz gold in Resources, that equates to $113m, or $0.27 per RXM share. If we deduct this from RXM's EV of $149m, it implies a current market Hillside valuation $36m implied valuation for Hillside, or around 0.1x our estimates Hillside's NPV of $306m.

To summarise the above, we have reproduced Figure 15, but adjusted the RXM valuation for our estimated $113m valuation for Hog Ranch.

We believe the market is materially undervaluing RXM's Hillside Cu project

Figure 18 – RXM vs peers with economic studies – adjusted for Hog Ranch

Company	Code	EV A$m	Market Cap. (MC) $m	NPV (8%) post tax - $m	EV/NPV x
Adriatic Metals	ADT	424	430	836	0.5
Aeon Metals	AML	41	43	230	0.2
KGL Resources	KGL	201	226	99	2.0
Venturex	VXR	660	664	328	2.0
Rex Minerals	RXM	149	156	306	0.5
RXM - Hillside only		*36*	*n/a*	*306*	*0.1*

Source: Various company reports, Iress, acova

Equity dilution and company valuation considerations

Our current valuation of Hillside (Stage 1 only) and Hog Ranch is $0.72ps and $0.27ps respectively, totalling $0.99ps. However, to advance Hillside in particular, we make assumptions around near-term equity funding.

In our forecast cashflows, we assume RXM issues 100m shares in FY22 at $0.35per share for $35m. This increases shares on issue to 522m, up from 422m currently. This of course, dilutes future cashflows per share from Hillside.

In FY23, we assume issuance of a further 400m shares (increasing shares on issue to ~922m from 522m) at $0.50ps ($200m) as we assume the gap between the share price and company valuations close materially as the company begins preliminary works at Hillside and secures debt and mining equipment financing. We assume the balance of Hillside construction is debt funded to the tune of $400m. While the implied debt/equity ratio of 60-65% in these assumptions may seem aggressive, the actual dilution in these assumptions could be a lot less if Hog Ranch is monetised, considerably reducing the need for equity from share issuance.

As a result of the future equity issuance assumptions discussed, our valuation for Hillside is diminished from the perspective of a shareholder today. This is reflected in Figure 21 which is a 12-month forward valuation.

Increased Hillside Reserves bolsters economics

Stage 2 Reserves will more than double mine life to beyond 20 years…

Stage 2 Reserves – announced to the market on 20 July 2021 – envisage a large open pit cut back commencing around six years post the commencement of mining of Stage 1, and will increase the mine life to 27 years, up from 14 years, at the 6mtpa ore processing rate. Lower grade stockpiled ore is expected to be processed for six years post this period, taking the total production life to around 33 years. Clearly, subject to studies and permitting, there is scope to increase throughput rates to increase production of copper and gold.

Taken from the Proposed Program for Environment Protection and Rehabilitation (PEPR), Stage 1 and 2 ore tonnes and grades are shown in Figure 19. The Total in Figure 19 compares closely to the most recent Reserves (Figure 3) of 182mtpa at 0.54% copper and 0.14% gold. Stage 1 Ore tonnes and grade in Figure 19 are in line with the previous Ore Reserves, announced in May 2015.

The recent Reserve update should assist with debt financing for the project

Figure 19 – Stage 1 & 2 ore breakdown from PEPR submission

Stage	Ore (Mt)	Copper %	Gold g/t
1 (EFS)	82	0.62	0.16
2 (BFS)	89	0.46	0.13
Total	**171**	**0.54**	**0.14**

Source: Company PEPR submission.

Valuation of Hillside Stage 2

Assuming an extension of the mine life from the Stage 1 base case of 14 years to 27 years, but at lower Stage 2 grades suggested in Figure 19, we estimate annual production and costs in Figure 20.

Stage 2 adds more than $100m to our estimated Stage 1 NPV of $306m

Figure 20 -A long life, low cost copper asset in Australia.

		Stage 1	Stage 2
Reserves	mt	82.2	100
Process rate	mtpa	6.0	6.0
Mine life	years	13.7	16.7
Cu - grade	%	0.62	0.46
Au - grade	g/t	0.16	0.13
Contained Copper	kt	510	460
Contained Au	koz	423	418
Copper production	ktpa	35	26
Gold production	kozpa	23	19
AISC	US$/lb	1.61	2.18
Financials		*Stage 1*	*Stage 1 + 2*
$NPV_{8\%}$	$m	306	419
IRR	%	17%	18%

Source: Acova, company

Assuming similar unit costs to Stage 1 for mining, processing, admin, and off-site logistics we estimate the lower grades in Stage 2 will increase the AISC to around US$2.20/lb, up from the estimated US$1.61/lb in Stage 1.

Stage 2 is not permitted under the current environmental permit and is only at a Pre-Feasibility Study (PFS) stage versus a more thorough Feasibility Study for Stage 1. Hence, in our company valuation, we split out Stage 1 and Stage 2 valuations.

Buy, 12-month target price of $0.75ps, 102% upside

We value RXM using Sum-of-the-Parts (SOTP) methodology and NPV analysis for the Hillside Stage 1 copper project and an EV$/oz gold in Resources of $50/oz for Hog Ranch. Our current $NPV_{8\%}$ for Hillside is $306m, or ~$0.72ps based on the existing ~422m shares on issue.

For Hillside Stage 2, we assume a value of 2% of the in-ground metal value. The in-ground metal value of Stage 2 is around US$3.9b at our base case pricing assumptions, which multiplied by 2% equals $78m. However, as we make assumptions around future equity issuance, this ultimately equates to $0.08 per share, or $36m based on an estimated 522m shares on issue in 12 months.

Our valuation and target price for RXM is $0.75ps

Figure 19 – RXM Valuation and target price

12-m forward valuation	US$m	A$m	A$m	A$ps
			Equity share	
Hillside - Stage 1	135	187	187	0.36
Hillside - Stage 2	26	36	36	0.08
Hog Ranch	81	113	113	0.22
Sub-total	**242**	**336**	**336**	**0.66**
Cash	21	29	29	0.09
Debt	0	0	0	0.00
Other	0		0	0.00
Total Valuation	**262**	**364**	**364**	**0.75**
Share price				0.37
P/NPV				**0.50**
Upside to NPV				102.0%

Target price methodology: NPV at 8% for Hillside, A$50/oz Resource for hog Ranch

Source: Acova

Rex Minerals - Financial summary

Share price at time of report (A$/share) *0.37*

Capital profile	2021A	2022A	2023F	2024F
Number of shares (m)	422	522	922	922
Market cap. (A$m)	156	193	341	341
Enterprise value (A$m)	151	164	422	734
Enterprise value (US$m)	108	118	304	528

12-m forward valuation	US$m	A$m	A$m	A$ps
			Equity share	
Hillside - Stage 1	135	187	187	0.36
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Share price				0.37
P/NPV				**0.50**
Upside to NPV				102.0%

Target price methodology: NPV at 8% for Hillside, A$50/oz Resource for hog Ranch

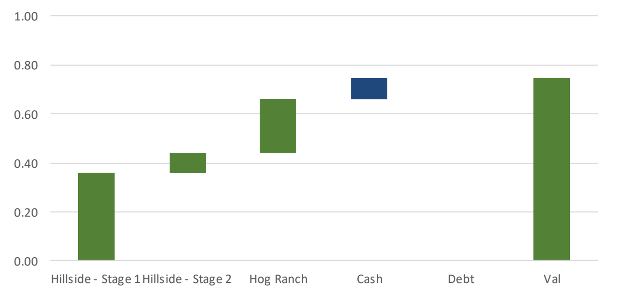
Key financials - June y/e	2021A	2022F	2023F	2024F	2025F
NPAT Reported (A$m)	(11)	(11)	(12)	(19)	70
NPAT - Underlying (A$m)	(11)	(11)	(12)	(19)	70
EPS - Underlying, f.d. (A¢)	(2.49)	(2.01)	(1.33)	(2.09)	7.54
FCFPS (A¢)	(2.49)	(2.01)	(33.04)	(33.80)	12.05
DPS (A¢)					
P / E (x)	nm	nm	nm	nm	4.9
EV / EBITDA (x)	nm	nm	nm	nm	3.7
EV / FCF (x)	nm	nm	nm	nm	5.6

Margin analysis (US$/lb Cu Eq)	2021A	2022F	2023F	2024F	2025F
Cu price (US$/t)	7,000	7,000	7,000	7,000	7,000
Cu price (US$/lb)	**3.18**	**3.18**	**3.18**	**3.18**	**3.18**
Gold price (US$/oz)	1,600	1,600	1,600	1,600	1,600
AUD/USD	0.72	0.72	0.72	0.72	0.72
Cu price (A$/lb)	4.41	4.41	4.41	4.41	4.41
Gold price (A$/oz)	2,222	2,222	2,222	2,222	2,222
AISC - Group (US$/lb)	**-**	**-**	**-**	**-**	**1.29**
AISC - Hillside (US$/lb)	-	-	-	-	1.29
AISC - Hog Ranch (US$/lb)					
AISC - Other (US$/lb)					
Cash AISC margin (US$/lb)	**-**	**-**	**-**	**-**	**1.88**
Copper produced (mlb)	**-**	**-**	**-**	**-**	**78**
Cash AISC margin (A$m)	**0**	**0**	**0**	**0**	**203**

Sensitivities	NPV	EBITDA (A$m)		Free cash (A$m)	
	A$ps	FY25F	FY26F	FY25F	FY26F
Base case	**0.75**	**170**	**170**	**130**	**130**
20% higher prices	**1.14**	**246**	**246**	**182**	**182**
20% lower prices	**0.35**	**94**	**94**	**78**	**78**
20% higher A$/US$	**0.43**	**109**	**109**	**89**	**89**
20% lower A$/US$	**1.23**	**261**	**261**	**193**	**193**

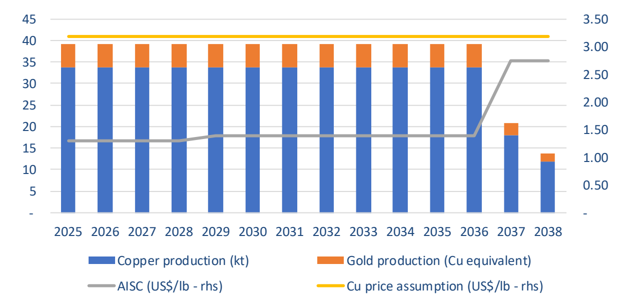
Production - copper and gold	2021A	2022F	2023F	2024F	2025F
Total Copper (kt)	**-**	**-**	**-**	**-**	**35**
Hillside	-	-	-	-	35
Hog Ranch					
Other					
Total Gold (000' oz)	-	-	-	-	**25**
Hillside	-	-	-	-	25
Hog Ranch					
Other					

12-month forward - NPV breakdown (A$ps)



Profit and Loss (A$m)	2021A	2022F	2023F	2024F	2025F
Revenue	0	0	0	0	344
Operating costs	0	0	0	0	(159)
Group corporate costs	(10)	(10)	(10)	(10)	(10)
Group exploration	(5)	(5)	(5)	(5)	(5)
Other	0	0	0	0	0
EBITDA	**(15)**	**(15)**	**(15)**	**(15)**	**170**
Depreciation & amortisation	0	0	0	0	52
EBIT	**(15)**	**(15)**	**(15)**	**(15)**	**118**
Net finance expense / (income)	0	0	(3)	(13)	(19)
EBT	(15)	(15)	(18)	(28)	99
Tax expense / (benefit)	5	5	5	8	(30)
NPAT - underlying	**(11)**	**(11)**	**(12)**	**(19)**	**70**
Significant items					
NPAT - reported	**(11)**	**(11)**	**(12)**	**(19)**	**70**

Production, realised price, and AISC - Hillside Stage 1



Profitability analysis	2021A	2022F	2023F	2024F	2025F
EBIT margin	nm	nm	nm	nm	34%
EBITDA margin	nm	nm	nm	nm	49%
Effective tax rate	30%	30%	30%	30%	30%
ROA - EBIT / (total assets - cash)	nm	nm	nm	nm	21%
ROE - NPAT / equity	nm	nm	nm	nm	nm

Cashflow (A$m)	2021A	2022F	2023F	2024F	2025F
EBITDA	(15)	(15)	(15)	(15)	170
Operating cashflow	(11)	(11)	(12)	(19)	121
Capex	0	0	(293)	(293)	(10)
Free cashflow	**(11)**	**(11)**	**(305)**	**(312)**	**111**
Investing cashflow (ex. capex)	0	0	0	0	0
Financing cashflow	13	34	295	300	(40)
Net Change in cash	3	23	(10)	(12)	71

Reserves and Resources

Resources	Mt	Cu %	Au %	Cu (kt)	Au (koz)
Hillside	337.3	0.58	0.13	1,968	1,416
Hog Ranch	164.7		0.43		2,260
Other					
Total Resources	502	0.39	0.23	1,968	3,676

Reserves	Mt	Cu %	Au %	Cu (kt)	Au (koz)
Hillside	182	0.54	0.14	988	823
Total Reserves	**182**	**0.54**	**0.14**	**988**	**823**

Balance Sheet analysis (A$m)	2021A	2022F	2023F	2024F	2025F
Gross debt	0	0	100	400	360
Equity	27	50	233	214	283
Assets	27	51	333	614	644
Cash	6	29	19	7	78
Net debt / (cash)	(6)	(29)	81	393	282
Gearing - net debt/equity	nm	nm	35%	184%	99%
Gearing - net debt/ (net debt + equity)	nm	nm	26%	65%	50%
Net debt / EBITDA	nm	nm	(5.4)	(26.2)	1.7
EBIT / net interest	nm	nm	0.0	0.0	(0.4)
EBITDA / net interest	0.0	0.0	0.0	0.0	nm

Risks

Commodity price and exchange rate fluctuations. The future earnings and valuations of exploration, development and operating resources companies are subject to fluctuations in underlying commodity prices and foreign currency exchange rates.

Infrastructure access. Commodity producers are particularly reliant upon access to transport infrastructure. Access to infrastructure is often subject to contractual agreements, permits, and capacity allocations. Infrastructure can be subject to outages as a result of weather events or the actions of third party providers.

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Resource growth and mine life extensions. Future earnings forecasts and valuations may rely upon resource and reserve growth to extend mine lives.

Sovereign risks. Mining companies' assets are subject to the sovereign risks depending on location.

Pandemic risks. Mining companies rely on freedom of movement of workforces, functioning transport routes, reliable logistics services including road, rail, aviation, and ports in order to maintain operations and get their products to market. They also rely on liquid, functioning markets to sell their products. Measures being put in place to combat the current COVID-19 pandemic are posing risks to these conditions.

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Operating and development risks. Mining companies' assets are subject to risks associated with their operation and development. Risks for each company can be heightened depending on method of operation (e.g. underground versus open pit mining) or whether it is a single operation company. Development assets can be subject to approvals timelines or weather events, causing delays to commissioning and commercial production.

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