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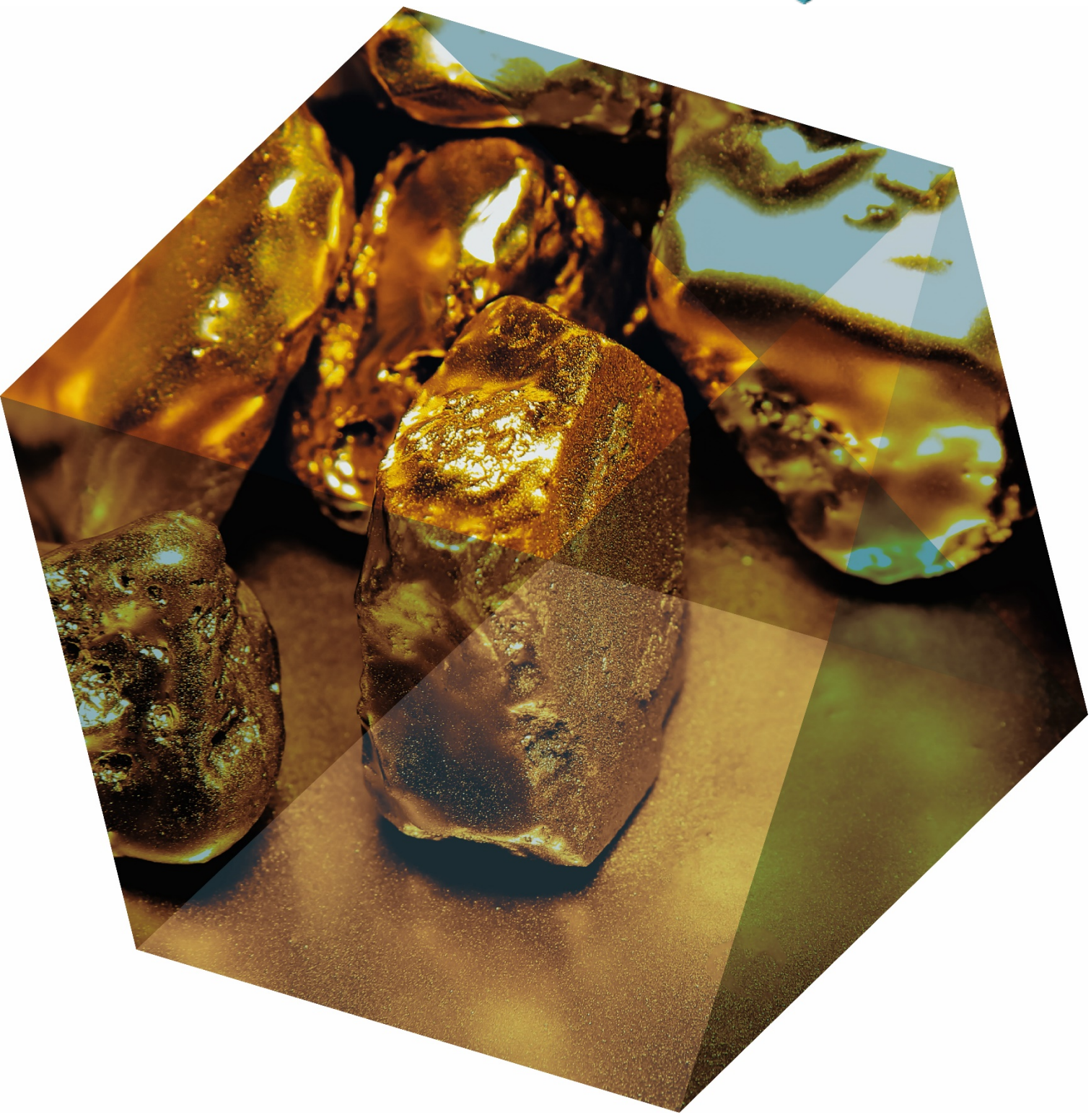

Anglo Asian Mining

Small-cap gold miner with bigger-cap prospects

By Paul Mylchreest

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Mining

Source: Refinitiv

Market data

EPIC/TKR	**AAZ**
Price (p)	**125.00**
12m High (p)	177.00
12m Low (p)	68.75
Shares (m)	114.4
Mkt Cap (£m)	143.0
EV (£m)	130.0
Market	AIM

Description

Anglo Asian Mining (AAZ) operates three mines and downstream processing facilities at its main site at Gedabek in Azerbaijan. Besides further exploration potential at Gedabek, exploration work has begun at the 462 sq km prospect at Ordubad.

Company information

CEO	Reza Vaziri
CFO	Bill Morgan
COO	Khosrow Zamani

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www.angloasianmining.com

Key shareholders

Directors & mgt.	41.05%

Diary

Sep'20	2Q production
Sep'20	Interim results

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ANGLO ASIAN MINING

Small-cap gold miner with bigger-cap prospects

AAZ is a highly cash-generative gold miner from four mines in Azerbaijan, where it enjoys close ties to the government. We estimate current-year free cashflow and dividend yields of 19.3% and 6.8%, respectively. The estimated aggregate free cashflow of $248.5m in 2020-30 should comfortably exceed the current market cap. In 2020, we expect AAZ to announce resource upgrades for its Gedabek open pit, Gadir and (potentially) Ugur mines, with a maiden estimate for the Gedabek underground mine in 2021. Behind them come five fast-track production targets (including Avshancli – a "significant mineral district") at Gedabek and the Ordubad Contract Area (AAZ's primary asset at the 2005 listing).

- **First-quartile costs:** AAZ's latest reported figure (FY'19) for All-In Sustaining Costs (AISC) was $591/oz, putting it in the first quartile of the gold mining cost curve. This is due to its Azerbaijani jurisdiction, predominance of open pit mining, access to the power grid and efficient downstream processing.

- **Production upgrade and upside**: Exploration success and upcoming resource upgrades give us confidence that production can be extended beyond remaining Proved and Probable reserves. We are assuming that 100% of the additional 553,000 oz of Measured & Indicated Resources are mined during 2026-30 – which excludes all five fast-track production targets and Ordubad.

- **Potential for two major mineralised "systems":** We believe that AAZ's flagship Gedabek Contract Area could be part of a much bigger epithermal-porphyry system of gold-silver-copper mineralisation. Exploration work is accelerating at the untapped Ordubad project – potentially a significant copper-gold porphyry.

- **Risks:** AAZ faces the normal risks for a junior miner, albeit without the funding risk faced by explorers/developers. These include volatility in gold prices, political risks (albeit mitigated), environmental risks, operational risks in successfully executing the mining plan and operating downstream processing facilities.

- **Investment summary:** The outstanding aspect of AAZ's financial performance is its cash generation, which is reflected in our DCF valuation of 181p per share, using a discount rate of 8% and long-term gold price of $1,600/oz. We expect the company to pay a $0.105 dividend in 2020, implying a dividend yield of 6.8%.

Financial summary and valuation

Year-end Dec ($m)	2017	2018	2019	2020E	2021E	2022E
Sales	71,806	90.354	94.534	105.537	111.422	112.812
Underlying EBIT	9,222	26.824	31.325	43.050	41.452	40.408
Reported EBIT	9,222	26.824	31.325	43.050	41.452	40.408
Underlying PTP	5,684	25.246	30.129	43.240	41.977	41.158
Statutory PTP	5,684	25.246	30.129	43.240	41.977	41.158
Underlying EPS (c)	2.22	14.32	16.91	24.57	23.85	23.38
Statutory EPS (c)	2.22	14.32	16.91	24.57	23.85	23.38
Net (debt)/cash	-18,117	6.102	16.113	42.141	62.516	84.430
Shares issued (m)	113.3	114.4	114.4	114.4	114.4	114.4
P/E (x)	69.8	10.8	9.2	6.3	6.5	6.6
Dividend yield	n/a	4.5%	5.2%	6.8%	5.2%	5.2%
FCF yield	9.0%	13.5%	16.5%	19.3%	17.9%	17.7%

Source: Hardman & Co Research

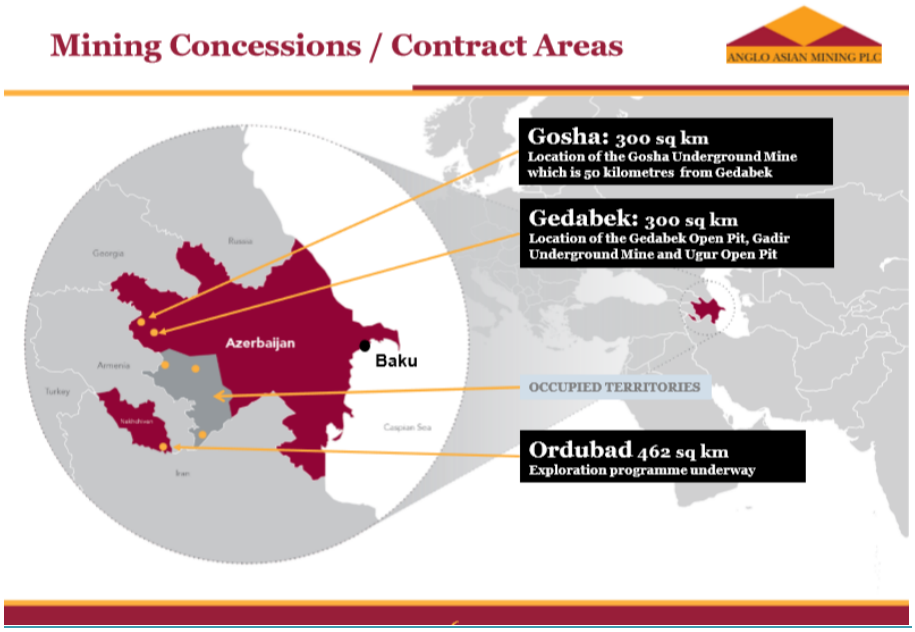
Uniquely positioned gold miner

In the context of small-cap gold mining, we believe AAZ's cost position, prodigious cash generation and potential for substantial upgrades to reserves/resources place the company in an increasingly strong competitive position vis-à-vis its industry.

AAZ's headquarters in Baku and mining operation in Western Azerbaijan

AAZ is headquartered in Azerbaijan's capital, Baku, and its mining operations are located in the Lesser Caucasus area in the west of the country. These include its flagship Gedabak operation and Gosha, which is located 50km to the north west. The company also has the potentially significant Ordubad project, close to the town of Ordubad, the second-largest in the Nakchivan autonomous region of Azerbaijan. There are also several targets in the Armenian-occupied territories, although AAZ incurs no costs and will only develop them if the political situation improves.

Anglo Asian Mining: location of mines and deposits in Azerbaijan



Source: Anglo Asian Mining

AIM-listed since 2005, with PSA based on established relationships with major oil companies

The company was listed on London's AIM market in 2005 to develop a gold and copper joint venture with the Government of oil-rich Azerbaijan. Indeed, AAZ's Production Sharing Agreement (PSA – see below) is modelled on PSAs orginally drawn up between the government and multinational oil companies.

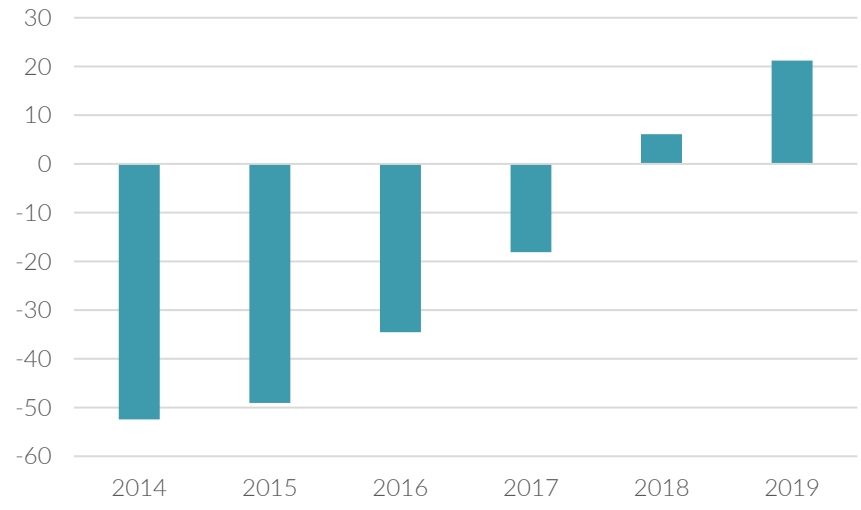
Being only listed mining company in Azerbaijan gives AAZ strategic importance

While Azerbaijan has a long track record of close cooperation with western oil companies, beginning with BP in 1992, and is an established destination for foreign energy investment, the mining situation is more embryonic.

Prodigious cash generation

What sets AAZ apart from the vast majority of its peers is its prodigous cash generation, which, as we will explain in detail later in the report, is due primarily to its low cost of production. The cash generation is obviously reflected in the investment metrics, including the free cashflow and dividend yields. It has also enabled AAZ's balance sheet to move from a net debt position of $52.4m at end-December 2014 to a net cash position of $21.2m at end-December 2019, without any capital raisings.

Anglo Asian Mining – net (debt)/cash 2014-19 ($m)



Source: Anglo Asian Mining

Company benefited from more than three decades of exploration work at its deposits

In AAZ's AIM Market Admission Document, the company stated that, in conjunction with the GoA, it planned to exploit three decades of Soviet exploration work, "meticulous Soviet-era studies". This exploration work left "an extensive legacy of documentary and physical evidence" of exploration work and drilling results.

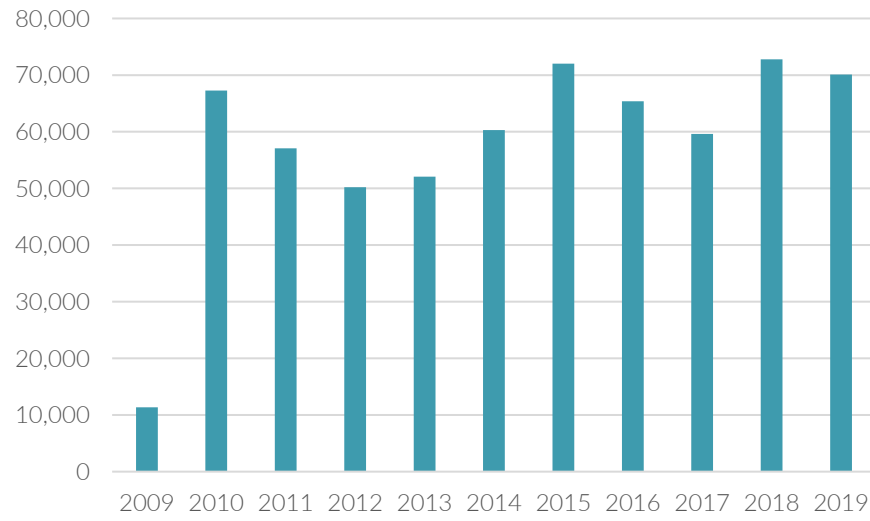
Gedabek commissioned in 2009

AAZ used both the prior studies and its own exploration work in completing a feasibility study for the Gedabek open pit mine in 2007. Financing was arranged in early 2008, and the mine was opened in May of the following year. The total capital and working capital cost of the mine was ca.$40.0m. Mining at Gedabek was followed by the commissioning of the Gosha underground mine in 2012, the Gadir underground mine in 2015 and the Ugur open pit mine in late 2017. Both Gadir and Ugur are located in the Gedabek Contract Area.

AAZ has produced more than 20 tonnes of gold

Since mine production began at Gedabek, AAZ has produced ca.600,000 oz (over 20 tonnes) of gold. Annual production in terms of ounces during 2009-19 is shown below.

Anglo Asian Mining – gold production, 2009-19 (oz)



Source: Anglo Asian Mining

Copper and silver production followed commissioning of SART plant

Copper and silver production began with the expansion of AAZ's processing facilities, initially with the commissioning of a SART plant (Sulphidication-AcidificationRecycling-Thickening) in 2010. We described the processing facilities in detail in our *most recent major AAZ report*, published nearly a year ago. In summary, processing was initially byheap leach, followed by SART, then agitated leaching and finally flotation.

Our previous model was based on exploitation of the remaining Proved and Probable reserves

In the last report, our financial model and valuation were based on a seven-year production timeline of 2019-25, as follows:

- the exploitation of the remaining Proved and Probable gold reserves for the Gedabek open pit, Gadir and Ugur;
- an assumption of 8,000 oz of gold reserves at Gosha, for which there was no JORC reserves estimate; and
- the exploitation of the majority of the reamining silver and copper Proved and Probable reserves in the same three deposits.

We now see upside to our production estimates beyond 2025

AAZ is now well advanced in extending production well beyond 2025 and likely increasing it from the plateau reached during the past several years. This report explains why and how we expect this to be achieved and the bigger potential for the Gedabek and Ordubud Contracts Areas to evole into separate mineralised "systems".

Since 2018, the company has adopted a more aggressive approach to exploration. Exploration ependiture, which amounted to a modest ca.$1.0m in 2017, rose to $4.5m in 2019. In 2018, AAZ defined the strategic aims of its exploration programme as:

- replacing mined production;
- extending the current mine life to a minimum of 10 years; and
- discovering new mineral deposits similar to Ugur, which can be rapidly developed into operating mines with the benefit of the existing infrastructure.

We see further upside to AAZ's production

We now see further upside to AAZ's medium- and long-term production profile due to:

- more confidence that existing resources can be converted into mineable reserves;
- the initial successes from the exploration programme; and
- the sharp rise in the gold price making more resources economic.

In our previous production model, we confined our estimates to the exploitation of the remaining Proved and Probable Reserves, including 408,000 oz of gold. This was extemely conservative; indeed, many companies base production plans on Measured, Indicated and/or Inferred Resources.

There are 553,000 oz of gold in M&I resources over and above Proved and Probable reserves…

We have now extended our production model to what we consider the medium term, i.e. beyond 2025. The table below shows the aggregate for the most recent, i.e. excluding depletion, published resources/reserves for the Gedabek open pit, Gadir and Ugur. In terms of gold, there is an additional 553,200 oz of Measured and Indicated (M&I) gold resources over and above the Proved and Probable reserves.

Anglo Asian Mining – total mineral resources reserves			
	Gold (k oz)	Silver (k oz)	Copper (kt)
Measured	760.2	5,944.6	39.566
Indicated	353.0	2,487.4	17.429
M& I	1,113.2	8,432.0	56.995
Inferred	243.2	1,630.4	10.271
Total resources	1,356.4	10,062.4	67.266
Proved	478	3,964	32.434
Probable	82	605	4.952
Total reserves	560	4,569	37.386

Source: Hardman & Co Research

Ordubad is slowly coming into focus

We are now more confident that AAZ can econmically exploit these additional M&I gold resources (and the majority of related silver and copper resources). We expect these M&I resources to be mined during 2026-32, as explained in more detail later in the report.

In terms of the medium-term production outlook to 2032, we are not including in our model at this stage:

- the five fast-track production targets identified in the 21 May 2020 "Strategic Update" (see below);
- any benefit from the large Ordubad deposits. However, exploration efforts are being ramped up, and this might change in the not too distant future.

We should also emphasise how, in the run-up to, and following, AAZ's IPO in 2005, Ordubad – and not Gedabek – was the compay's focus in terms of developing its first mine.

On 21 May 2020, AAZ published its "Strategic Update", a key part of which was the identification of five exploration targets, which the company plans to fast track into production within three years.

- **Avshancli 1 and Avshancli 3** – in the north east of the Gedabek Contract Area;
- **Gilar** – in the north east of the Gedabek Contract Area;
- **Zefer Cell 9** – near the leach pad processing area at Gedabek; and
- **Ugur Deeps** – several hundred metres from the south east flanks of the Ugur open pit mine.

The update noted that budgets and work progammes have been developed for each target in order to define mineral zones, delineate resources and convert resources into reserves.

The fast-track plan sees Avshancli 1 and 3 potentially coming onstream in the second half of 2022 with the last one, Zefer, potentially onstream by the beginning of 2025.

Global gold mining – no major discoveries for a decade

Discovery	Year					
	2020	2021	2022	2023	2024	2025
Avshancli 1	////////////////////	>>>>>>> >>	Production commences Q2/Q3 2022			
Avshancli 3	////////////////////	>>>>>>> >>	Production commences Q3 2022			
Gilar	//////////////////////////	>>>>>>>>>	Production commences Q1 2023			
Ugur Deeps	//////////////////////////////////	>>>	Production commences Q1 2023			
Zefer Cell 9	//			>>>>>>>>>>>	Production	

//////////////	Exploration
>>>>>>>>>>>	Mine Construction

Source: AAZ

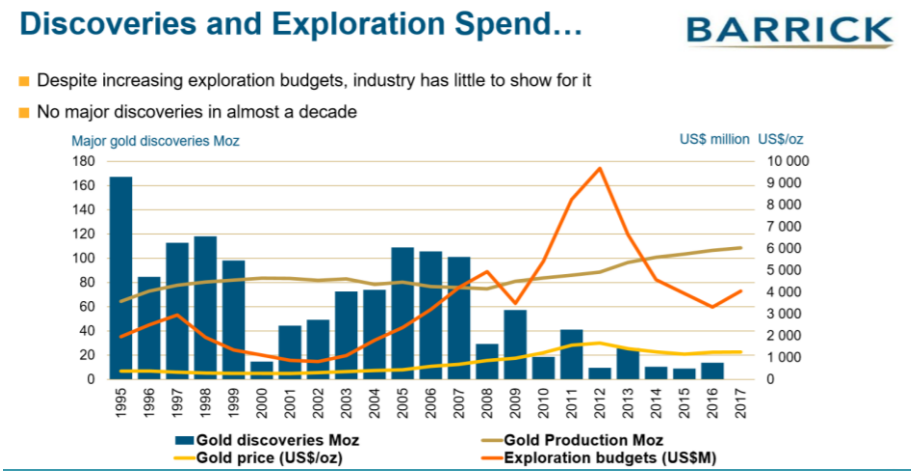
Bigger "system" potential at Gedabek...and Ordubad

We have stated before that the Gedabek Contract Area, incorporating Gedabek, Gadir, Ugur and other potential targets, has bigger "system" potential. We are referring to the likelihood that Gedabek-Gadir is part of a much bigger porphyry-epithermal system of gold-copper-silver mineralisation, which goes well beyond the existing resources/reserves and the next upgrade noted above. We want to emphasise that, although it is early days, the Ordubad Contact Area has similar potential, as we outline below.

Putting AAZ's resources/reserves outlook into context

While we believe that AAZ will significantly expand its resources/reserves in the next few years, it is worth highlighting its position vis-à-vis the global industry. In a recent presentation, Barrick Gold published some useful slides – the slide below shows the dearth of major gold discoveries.

Global gold mining – no major discoveries for a decade

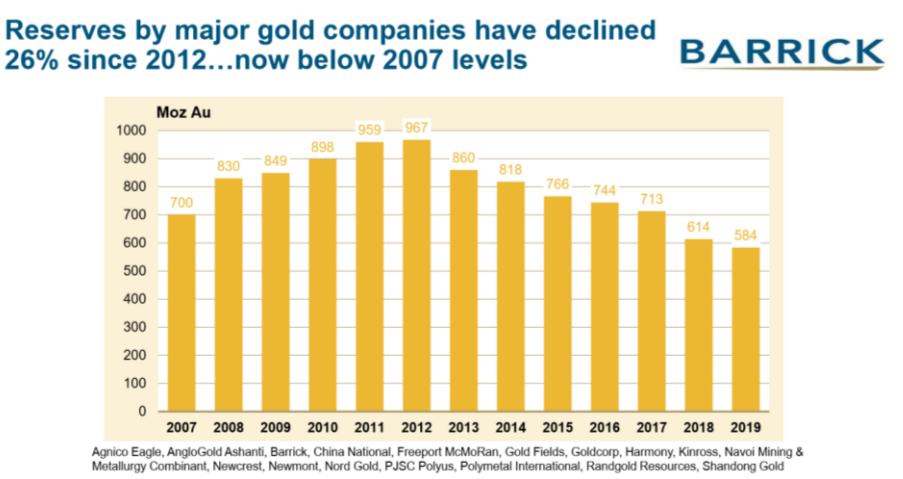


Source: Barrick Gold

Reserves of world's biggest gold miners in decline

As major new discoveries have proved more elusive, the reserves of the world's largest gold companies in aggregate have been on a declining trend since 2013 – a trend to which we expect AAZ to show a strong divergence.

Global gold mining – reserves of major gold companies in decline

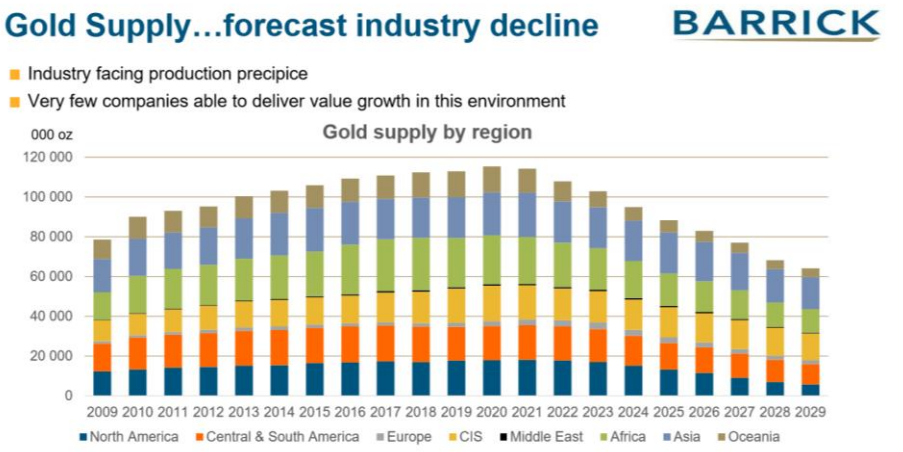


Note: 2019 = reported updated reserves, where available;
Source: Barrick Gold, S&P Global Market Intelligence

Peak gold?

These factors are leading Barrick and others (including ourselves) to the conclusion that we are at, or close to, peak gold production.

Global gold mining – have we reached peak production?



Source: Barrick Gold

Close links with GoA

AAZ has a history of close cooperation with the GoA, as well as links to the US establishment. Indeed, the President of Azerbaijan, Ilham Aliyev, attended the opening ceremony for the Gedabek open pit mine on 26 May 2009, and the GoA's Ministry of Emergencies provided helicopters for AAZ's 2018 airborne geophysical survey. In addition, the International Bank of Azerbaijan (IBA), which is majority-owned by the GoA, provided AAZ with a $43.9m loan to finance the initial construction of the Gedabek mine.

Management backgrounds

The company's President and CEO, Reza Vaziri, is founder and life chairman of the US Azerbaijan Chamber of Commerce. Vaziri was the head of Iran's foreign relations office prior to relocating to the US. The Chairman, Khosrow Zamani, joined the board in his current role in July 2007 and was immediately successful in helping AAZ to raise the funds to develop the Gedabek project. He was director of Europe & Central Asia for the International Finance Corporation, the World Bank's private-sector lending arm.

Non-executive director, John Sununu, was George H. W. Bush's Chief of Staff, and CFO, Bill Morgan, previously worked as regional financial officer for Kinross in Russia and was CFO of AIM-listed gold miner, Hambledon Mining. Stephen Whitehead, Director of Geology, was formerly Technical Advisor to the MD of Polyus Gold's main business unit.

Cashflow, earnings and valuation

AAZ is highly cash-generative

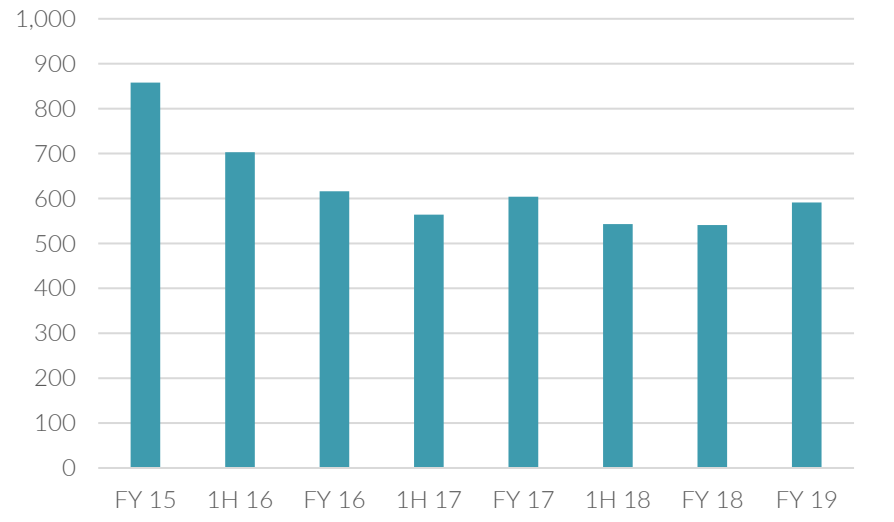
We want to reiterate that the magnitude of AAZ's cash generation is the outstanding aspect of the company's financial performance This is based on its low-cost production, which is due to the combination of a number of factors:

- its Azerbaijani jurisdiction;
- predominance of open pit mining;
- access to the national power grid;
- modest levels of reinvestment (despite bringing on new mine production, e.g. Ugur); and
- investment in efficient downstream processing facilities.

FY'19 AISC was $591/oz

AAZ's latest reported (for FY'19) figure for AISC of gold production was $591/oz, versus $541/oz in FY'18, and versus an average gold price in 2018 of $1,319/oz.

Anglo Asian Mining: AISC of gold production ($/oz), FY'15-FY'19



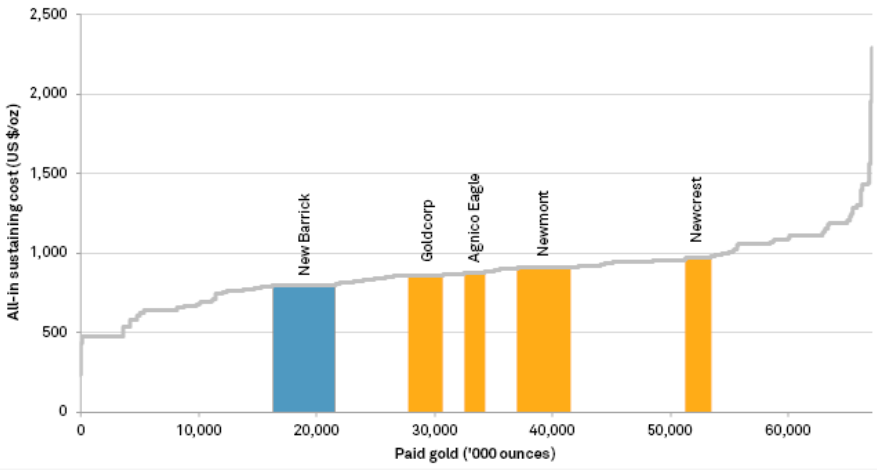
Source: Anglo Asian Mining

It is also worth highlighting AAZ's cost structure in the broader gold mining context and insightful to compare it with the largest gold mining companies – for example, Barrick Gold, Goldcorp and Newmont, etc.

AAZ in first quartile of industry's cost curve

An AISC of $591/oz puts the company in the first quartile of the gold mining industry's cost curve. The chart below shows the forecast 2019 gold AISC cost curve from S&P Global Market Intelligence.

Forecast 2019 AISC gold mining cost curve ($/oz)



Source: S&P Global Market Intelligence

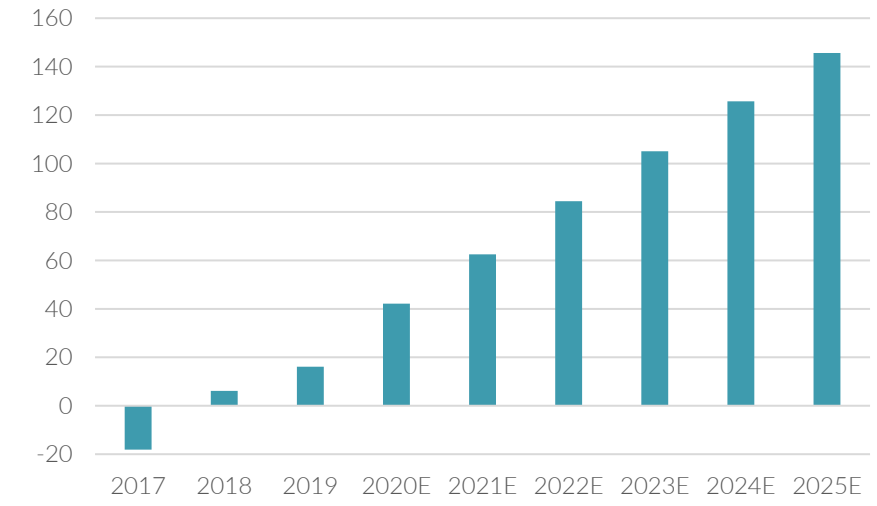
Net cash on balance sheet and maiden dividend announced in 2018

As noted, AAZ's strong cash generation saw it move from a net debt position of $18.1m at 31 December 2017 to a net cash position of $21.2m at 31 December 2019. This was in spite of the company declaring its maiden dividend of 0.03c/share with its 2018 interims, and further dividends of 0.04c/share and 0.035c/share with the 2018 finals and 2019 interims, respectively. The company has committed to paying a dividend equivalent to 25% of its free cashflow (net cashflow from operations less capex) going forward.

AAZ will need either higher payout ratio or substantial investment in new mine production

The chart below illustrates that, without a higher payout ratio or substantial investment in new mines and mine production, our financial model shows that net cash on AAZ's balance sheet will be approaching $150m by 2025.

Anglo Asian Mining – net (debt)/cash, 2017-25E ($m)



Source: Anglo Asian Mining, Hardman & Co Research estimates

The table below shows AAZ's cashflow in 2018-19 and our detailed estimates from 2020-22.

ILC – cashflow statement, 2018-22E					
Year-end Dec ($m)	2018	2019	2020E	2021E	2022E
Operating profit	26.824	31.325	43.050	41.452	40.408
Non-cash items:					
Depreciation	20.957	17.562	22.000	23.000	24.000
Amort. of mining rights	1.990	1.600	2.200	2.400	2.600
Disposal of mining equip.	0.209	0.000	0.000	0.000	0.000
Other	0.136	0.000	0.000	0.000	0.000
Operating cashflow	**50.116**	**50.487**	**67.250**	**66.852**	**67.008**
Change in inventories	-1.767	-9.722	2.000	0.000	0.000
Change in receivables	-0.314	-2.502	0.000	0.000	0.000
Change in payables	2.670	-0.462	0.000	0.000	0.000
Cash from operations	**50.705**	**37.801**	**69.250**	**66.852**	**67.008**
Tax paid	-3.588	-8.148	-10.787	-15.134	-14.692
Net cash from ops.	**47.117**	**29.653**	**58.463**	**51.718**	**52.316**
Capex on PPE & mines	-15.324	-4.703	-11.500	-17.000	-18.000
Inv. in exploration	-2.875	-4.499	-6.500	-4.000	-4.000
Net cash for investing	**-18.199**	**-9.202**	**-18.000**	**-21.000**	**-22.000**
Share issues	0.149	0.000	0.000	0.000	0.000
Increase in borrowings	13.955	0.537	0.000	0.000	0.000
Repayment of borrowings	-26.208	-7.948	-5.444	0.000	0.000
Dividends paid	-3.432	-8.696	-10.868	-10.868	-9.152
Interest received	0.064	0.073	0.350	0.525	0.750
Interest paid	-1.480	-1.157	-0.160	-0.000	0.000
Net cash for financing	**-16.912**	**-17.191**	**-16.122**	**-10.343**	**-8.402**
Net change in cash	**12.006**	**3.260**	**24.341**	**20.375**	**21.914**
Cash: end of year	**14.540**	**17.800**	**42.141**	**62.516**	**84.430**
Debt: end of year	**-8.438**	**-5.444**	**0.000**	**0.000**	**0.000**
Net cash: end of year	**6.102**	**12.357**	**42.141**	**62.516**	**84.430**

Source: Anglo Asian Mining, Hardman & Co Research estimates

Royalty based on PSA

The PSA between AAZ and the GoA is based on similar contracts to those that have been used successfully in the development of Azerbaijan's oil sector in cooperation with oil majors, such as BP. Under the PSA, the GoA is entitled to 51% of "profit production", i.e. the value of production less cash operating and capital costs.

Effective royalty rate currently 12.75%

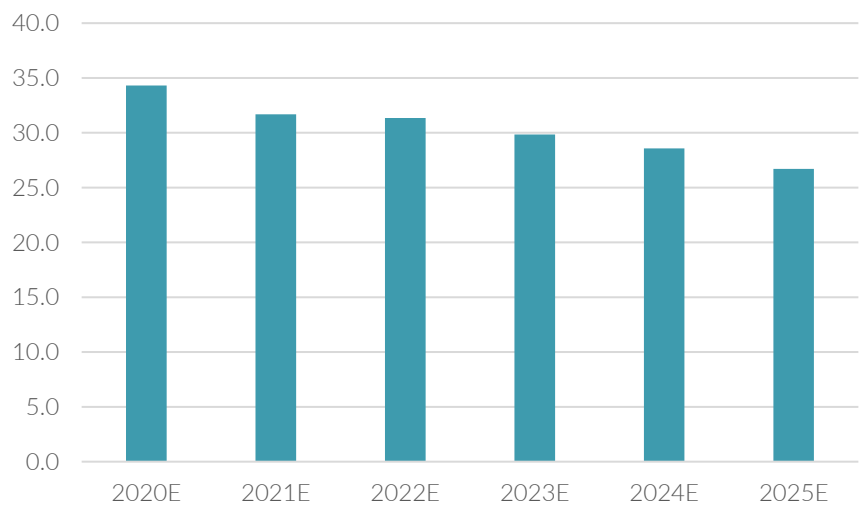
The agreement is subject to a minimum of 25% of the above-mentioned 51%, i.e. 12.75%, until all costs are recovered. This has been the royalty rate every year since production commenced. At the Gedabek Contract Area, there were $59.0m of unrecovered costs outstanding at end-December 2019 ($76.9m end-2018).

Our assumption is that the royalty rate remains at 12.75% until the end of 2025, after which it moves up to 51% for the remainder of our forecasting period until 2032. In practice, this is likely to be conservative, because the capital costs of constructing an underground mine at Gedabek (not currently in our model) will delay the onset of higher royalty rates.

We estimate free cashflow generation will average $30.4m p.a. during 2020-25

We expect cash generation to remain very strong during 2020-25. Our estimate of annual free cashflow generation during this period (defined as net income plus depreciation & amortisation – capex) will be in the range of $26.7m-$34.3m – with an average of $30.4m – versus AAZ's current market capitalisation of $177.3m (£143.0m). This amounts to an average free cashflow yield of 17.2% p.a.

Anglo Asian Mining: free cashflow, 2020-25E ($m)



Source: Hardman & Co Research estimates

Our detailed P&L estimates through to the end of 2022 are shown in the table below.

Anglo Asian Mining – profit & loss account, 2018-22E

Year-end Dec ($m)	2018	2019	2020E	2021E	2022E
Sales	90.354	92.052	105.537	111.422	112.812
Cost of sales	-56.530	-54.576	-55.184	-62.395	-64.748
Gross profit	33.824	37.476	50.354	49.026	48.064
Margin	37.4%	40.7%	47.7%	44.0%	42.6%
Other income	0.068	0.000	0.000	0.000	0.000
Admin. expenses:	-5.291	-5.208	-6.332	-6.574	-6.656
Other op. expenses	-1.777	-0.943	-0.971	-1.000	-1.000
Operating profit	**26.824**	**31.325**	**43.050**	**41.452**	**40.408**
Finance income	0.064	0.073	0.350	0.525	0.750
Finance costs	-1.642	-1.269	-0.160	0.000	0.000
Pre-tax profit	**25.246**	**30.129**	**43.240**	**41.977**	**41.158**
Taxation	-8.911	-10.787	-15.134	-14.692	-14.405
Tax rate	35.3%	35.8%	35.0%	35.0%	35.0%
Attributable profit	**16.335**	**19.342**	**28.106**	**27.285**	**26.752**
Basic no. of shares (m)	114.0	114.4	114.4	114.4	114.4
Basic EPS ($)	**14.32**	**16.91**	**24.57**	**23.85**	**23.38**

Source: Anglo Asian Mining, Hardman & Co Research estimates

DCF valuation, using 8% discount rate: 171p per share

We have valued AAZ using a DCF model, incorporating a discount rate of 8%, production through to 2032, and long-term gold, silver and copper prices of $1,600/oz, $20.00/oz and $6,000/tonne, respectively. Using these assumptions, our fair value for the company is 181p per share, versus the current price of 125p (as at 8 June 2020). We would also note that the estimated free cashflow generated during 2020-32 of $248.5m substantially exceeds the current market cap. of $177.3m.

Anglo Asian Mining – DCF valuation: part 1 (2020-25E)							
$m (unless stated)	2020E	2021E	2022E	2023E	2024E	2025E	2026E
PTP	43.240	41.977	41.158	40.991	41.191	41.391	5.561
Tax	-10.787	-15.134	-14.692	-14.405	-14.347	-14.417	-14.487
NOPAT	**32.453**	**26.843**	**26.466**	**26.586**	**26.844**	**26.974**	**-8.926**
Depreciation & amort.	24.200	25.400	26.600	27.200	27.800	27.800	21.000
Change in working cap.	2.000	0.000	0.000	0.000	0.000	0.000	0.000
Capex & exploration	-18.000	-21.000	-22.000	-24.000	-26.000	-28.000	-10.000
Free cashflow	**40.653**	**31.243**	**31.066**	**29.786**	**28.644**	**26.774**	**2.074**
Discount rate = 8%							
Discount factor	1.00	0.93	0.86	0.79	0.74	0.68	0.63
Disc. free cashflow	**40.653**	**28.929**	**26.634**	**23.645**	**21.054**	**18.222**	**1.307**

Source: Hardman & Co Research estimates

Anglo Asian Mining – DCF valuation: part 2 (2026-30E)							
$m (unless stated)	2027E	2028E	2029E	2030E	2031E	2032E	Total
PTP	5.636	5.684	5.784	6.828	6.903	6.896	**293.242**
Tax	-1.946	-1.973	-1.989	-2.024	-2.390	-2.416	-111.008
NOPAT	**3.690**	**3.712**	**3.795**	**4.804**	**4.514**	**4.480**	**182.234**
Depreciation & amort.	19.900	19.300	18.700	17.950	12.878	1.800	270.528
Change in working cap.	0.000	0.000	0.000	0.000	0.000	0.000	2.000
Capex & exploration	-10.000	-10.000	-10.000	-10.000	-8.000	0.000	-197.000
Free cashflow	**13.590**	**13.012**	**12.495**	**12.754**	**9.392**	**6.280**	**257.762**
Discount rate = 8%							
Discount factor	0.58	0.54	0.50	0.46	0.43	0.40	
Disc. free cashflow	**7.929**	**7.030**	**6.250**	**5.908**	**4.028**	**2.494**	**194.083**
Cum. disc. FCF	194.083						
Net (debt)/cash	17.442						
Total	**211.525**						
Add: PV gold in tailings	18.855						
Add: PV copper stockpile	8.788						
Add: PV of Ordubad	9.750						
Add: PV of plant/equip.	7.475						
Market cap.	**256.392**						
FD shares (m)	114.4						
Valuation ($)	2.24						
$/£	1.24						
Valuation (£)	**1.81**						

Source: Hardman & Co Research estimates

Please note – the net cash position includes "Cash in transit" on 31 December 2019.

The above valuation of 181p per share includes post-tax discounted valuations of AAZ's gold in tailings and copper stockpiles, an estimate for the post-tax discounted valuation for plant & equipment and a (nominal) discounted valuation of the Ordubad deposit. The valuation estimates for the gold and copper stockpiles are as shown in the table below.

Anglo Asian Mining – valuation of gold and copper stockpiles		
	Gold	Copper
Metal content	87,000 oz	10,900t
Price	$1,600/oz	$6,000/t
Recovery	60%	60%
Processing cost	$200/oz	$500/t
Discount factor	0.40	0.40
Tax	35%	35%
Value	$18.855m	$8.788m

Source: Hardman & Co Research

Production estimates extended from 2025 to 2032

Production estimates for 2020-25

In 2019, AAZ produced 82,795 Gold Equivalent Ounces (GEOs) at budgeted metal prices; this was within the guidance range of 82,000-86,000 GEOs, and slightly lower than the 83,376 GEOs in 2018. Owing to the increase in gold relative to copper versus budgeted prices, production was 81,399 GEOs in terms of actual prices. Gold production declined 4% in 2019 to 70.098 oz (72,798 oz in 2018), due to the expected reduction at Ugur.

Substantial volume of ore stockpiled in 2019

Changes in metal prices aside, the 2019 production outcome needs further explanation, due to its impact on 2020 and beyond. Total ore mined in 2019 of 2.913m tonnes was 31% higher than the 2.218m tonnes of ore processed. Based on the volume of ore mined, production in terms of GEOs might have been significantly higher:

- absent stockpiling ore to "smooth" the effect of the Ugur mine potentially approaching the end of its economic life; and
- with some additional downstream processing activity.

Stockpile will help to maintain production as Ugur declines

The roughly 700,000 tonnes of additional ore has been stockpiled for processing in the current year. The stockpiled ore will help to maintain relatively stable production of gold and GEOs, as the expected decline of the (briefly) prolific Ugur mine unfolds in 2021-22.

2020 production guidance

AAZ's production guidance for 2020, published on 11 March 2020, is shown in the table below.

Anglo Asian Mining – 2020 guidance vs. 2019

	2019 actual	2020 guidance
FY'20 revenue		> $100m
GEO production	81,399 oz	75,000-80,000 oz
Gold production	70,098 oz	65,000-67,000 oz
Copper production	2,210 tonnes	2,200-2,400 tonnes

Source: Anglo Asian Mining, Hardman & Co Research estimates

To recap, the Ugur open pit mine is situated 5km north west of the Gedabek open pit and 3.5km from the Gedabek processing facilities. Its discovery, in 2016, was the result of stream sediment sampling with follow-up analysis of 500 chip samples taken from outcrop. Further exploration the same year saw drilling in a 350 x 250 metre area, with all drill holes intercepting oxide gold and silver mineralisation (with no copper).

Ugur commissioned in 2017

The results of the second phase of drilling confirmed a gold-rich oxide zone, which went deeper (ca.60 metres) than previously expected. A resources estimate showing 147,000 Proved and Probable reserves and 172,000 M&I resources was published in August 2017, and production commenced shortly after – hence the time between the first exploration drill hole and the extraction of ore from the Ugur open pit was just over one year.

Ugur – mineral resources & reserves

	Tonnage (mt)	Gold (k oz)	Gold (g/t)	Silver (k oz)	Silver (g/t)
Measured	4.12	164	1.2	841	6.3
Indicated	0.34	8	0.8	44	3.9
M& I	4.46	172	1.2	884	6.2
Inferred	2.50	27	0.3	165	2.1
Total resources	6.96	199	0.9	1,049	4.7
Proved	3.37	142	1.3	779	7.2
Probable	0.22	5	0.8	29	4.1
Total reserves	3.59	147	1.3	808	7.0

Source: Hardman & Co Research

Strategic review of mine production in 2017

During 2017-18, AAZ completed a strategic review to optimise production at the main open pit mine at Gedabek and the nearby underground mine at Gadir. It necessitated the temporary cessation of mining at these sites, while exploration work was carried out to better delineate the resources.

Ugur compensated for suspension of production at Gedabek/Gadir

The suspension of mining at the Gedabek open pit and at the Gadir mine allowed heavy equipment for earth-moving and road-building to be redeployed to accelerate the commissioning of the open pit mine at Ugur, shown in the photograph below. Stockpiling ore before the suspension of mining and the co-commissioning of Ugur helped to maintain AAZ's overall production. In addition to bringing Ugur onstream, a temporary in-line configuration of the flotation and agitation leaching plants facilitated the processing of part of the 1.1m tonne stockpile of high copper content ore.

Ugur open pit

Source: Anglo Asian Mining

Managing production at Ugur

We estimate that of the roughly 49,000 oz of gold in ore mined at Ugur in 2019, about 13,000 oz was stockpiled. At this stage, we are assuming that roughly 15,000 oz of reserves at Ugur, together with the 13,000 oz of gold in stockpile, are processed in 2020. Another 10,000 tonnes of ore mined and processed in 2021 would see the Ugur open pit's Proved and Probable reserves exhausted.

Remaining reserves in our 2020-25 production model

The basis for our model for AAZ's 2020-25 production is the aggregate of Proved and Probable reserves for the Gedabek open pit, Gadir and Ugur, less the estimated depletion up to the end of 2019. This is shown in the table below in terms of the gold reserves (86.1% of 2019 GEO production). Gosha does not have a resource estimate, and we have assumed a small mineable reserve of 3,000 oz, as shown in the table (which should prove conservative).

Basis for 2020-25 gold production model

	oz
Total of Gedabek, Gadir and Ugur	560,000
Less:	
Est. Gedabek depletion	-32.000
Less:	
Est. Gadir depletion	-14,000
Less:	
Est. Ugur depletion	-109,000
Add:	
Est. Gosha reserves	+3,000
Total gold production in model	**408,000**

Source: Hardman & Co Research

Open pit has north-south strike of more than a kilometre

The Gedabek open pit has gold-copper-silver mineralisation with a north-south strike of ca.1,300 metres and covers a total area of about 1 sq km. The highest gold grades have generally been located in the oxidation zone, close to the surface. The northern zone typically has mixed gold and copper mineralisation, with the higher-grade copper ore located around the east of the deposit. Zinc-bearing minerals have been found around the west of the orebody, but are not currently being targeted.

Gedabek open pit mine

Source: Anglo Asian Mining

Gedabek needs to pick up slack

With the decline at Ugur, the key to AAZ's production outlook for 2020-25 is the extent to which the Gedabek open pit can pick up the slack.

We estimate ca.311,000 oz of reserves remaining at Gedabek

The most recent JORC resources/reserves estimate for the Gedabek open pit was published in September 2018, showing 796,000 oz of M&I gold resources and 343,000 oz of Proved and Probable reserves. Subracting an estimated depletion of 32,000 oz by end-December 2019 leaves reserves of ca.311,000 oz.

Gedabek open pit – mineral resources & reserves

	Tonnage (mt)	Gold (k oz)	Gold (g/t)	Silver (k oz)	Silver (g/t)	Copper (kt)	Copper (%)
Measured	18.0	532	0.9	4,800	8.3	38.0	0.2
Indicated	11.1	264	0.7	2,011	5.6	15.7	0.1
M& I	**29.1**	**796**	**0.9**	**6,811**	**7.3**	**53.7**	**0.2**
Inferred	8.5	189	0.7	1,361	5.0	9.7	0.1
Total resources	**37.6**	**986**	**0.8**	**8,172**	**6.8**	**63.4**	**0.2**
Proved	10.9	311	0.9	3,084	8.8	31.9	0.3
Probable	1.2	32	0.8	373	9.5	4.1	0.3
Total reserves	**12.1**	**343**	**0.9**	**3,457**	**8.9**	**36.0**	**0.3**

Source: Hardman & Co Research

We expect ramp-up in production starting this year

While we have a high level of confidence that the reserves are there – and considerably more besides – production will need to be ramped up, either in 2020 or, as we currently expect, in 2021. Moving equipment between open pits from Ugur to Gedabek will obviously help.

AAZ received approval for its second mine at Gosha in May 2012, after adit sampling and ore grade comparisons with Soviet data confirmed economic mineralisation. Like Gedabek, the contract area at Gosha extends to some 300 sq km, although production from the narrow vein underground mine has been on a small scale.

Gosha began producing in 2014 from non-JORC-compliant resource estimate

There are two mineralised trends perpendicular to each other at Gosha. When production began in 1Q'14, the company worked from a non-JORC-compliant gold resource estimate of ca.40,000 oz, based on one trend, which was produced by SRK Consulting. The strategy for Gosha was to develop a small, profitable mine with gold production of about 10,000 oz p.a. for around five years. The first trend has been largely mined out, but mining continues, as the softer Gosha ore is useful in blending of feedstock for the processing facilities.

Gosha underground mine entrance

Source: Anglo Asian Mining

Gadir underground mine commissioned in 2015

Gadir is a low sulphidation (LS) epithermal-type gold-silver-copper deposit located in the Gedabek Contract Area. AAZ began developing the underground mine in 2012 with drilling programmes, geological mapping and soil geochemistry. Drilling identified a series of vertically stacked, shallow-dipping mineralised lenses within a 50 x 100 metre area and a height of about 150 metres. Work began on construction of a 650-metre decline in 2014, and the first ore was mined in June 2015.

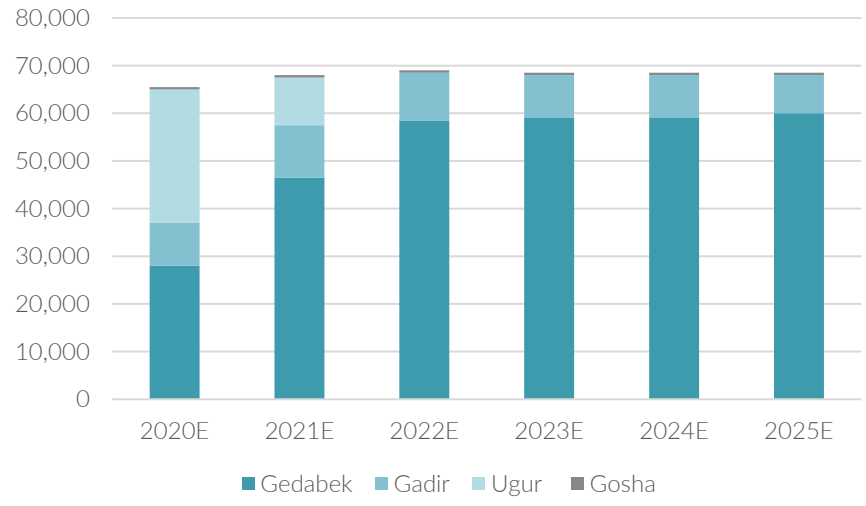
Gadir – mineral resources & reserves

	Tonnage (mt)	Gold (k oz)	Gold (g/t)	Silver (k oz)	Silver (g/t)	Copper (t)	Copper (%)
Measured	0.540	64.2	3.70	303.6	17.49	1.566	0.29
Indicated	1,235	81.0	2.04	432.4	10.89	1.729	0.14
M& I	**1.775**	**145.2**	**2.54**	**736.1**	**12.90**	**3,295**	**0.21**
Inferred	0.571	27.2	1.48	104.4	5.68	571	0.10
Total resources	**2.347**	**172.4**	**2.29**	**840.4**	**11.14**	**3,866**	**0.19**
Proved	0.222	25	2.81	101	14.13	0.535	0.24
Probable	0.575	45	2.41	203	10.99	0.852	0.15
Total reserves	**0.797**	**70**	**2.73**	**304**	**11.86**	**1,387**	**0.17**

Source: Anglo Asian Mining

Our forecast for AAZ's gold production by individual mine for 2020-25 is shown in the chart below.

Anglo Asian Mining – gold production, 2020-25 by mine (oz)



Source: Hardman & Co Research estimates

Production estimates for 2026-32

We estimate additional resources that could be exploited

The table below contrasts the estimates for Proved and Probable gold reserves with M&I resources. In terms of gold, this leaves an estimated 553,200 oz of gold resources at the Gedabek, Gadir and Ugur deposits – we are assuming zero additional resources at Gosha at this stage.

Anglo Asian Mining – total mineral resources & reserves

	Gold (k oz)	Silver (k oz)	Copper (kt)
Measured	760.2	5,944.6	39.566
Indicated	353.0	2,487.4	17.429
M& I	**1,113.2**	**8,432.0**	**56.995**
Inferred	243.2	1,630.4	10.271
Total resources	**1,356.4**	**10,062.4**	**67.266**
Proved	478	3,964	32.434
Probable	82	605	4.952
Total reserves	**560**	**4,569**	37.386
Total M&I resources reserves	553.2	5,493.4	**29,880**

Source: Hardman & Co Research

We are more confident that AAZ will be able to economically extract these additional gold resources – and likely significantly more – based on:

We believe AAZ will be able to extract part of these additional resources

- additional exploration work (see below) during the past 12-18 months;
- a rise in the gold price; and
- the expected publication of new resources/reserves estimates in 2020.

More aggressive approach to exploration

In 2019, AAZ adopted a more aggressive exploration policy of drilling more holes, in a more densely located pattern, in a shorter space of time. The aggressive approach was needed to:

- "prove up" resources at a faster rate;
- address the company's growing number of highly prospective targets; and
- increase management's understanding of the bigger "system" potential at the Gedabek and Ordubad Contract Areas.

Updated resources/reserves estimate for Gedabek open pit and Gadir expected this year

In 2020, we expect AAZ to publish new resources/reserve estimates for the Gedabek and Gadir open pits. A new resource/reserve estimate is also possible for Ugur, although we understand that the ability to produce beyond the current reserves estimate may be communicated more informally.

We estimate AAZ can extract 50% the additional M&I resources during 2026-32

For the time being, we are maintaining our conservative approach by assuming that AAZ only extracts the 553,200oz of gold resources during the seven-year period 2026-32.

We are not, at this stage, including any additional production from extending the lives of existing mines via near-mine development. As the following table shows, the company is planning to commission production from mineable extensions to three existing mines in the first quarter of 2023. However, this is likely to change with the publication of resource estimates for these projects in due course.

Anglo Asian Mining – gold production, 2026-32E (oz)

Mine extension	Year			
	2020	2021	2022	2023
Gadir extensions	////////	////////	>>>>>>>>	***Production commences Q1***
Gadabek Underground	////////	////////	>>>>>>>>	***Production commences Q1***
Gosha "Zone 5"	////////	////////	>>>>>>>>	***Production commences Q1***

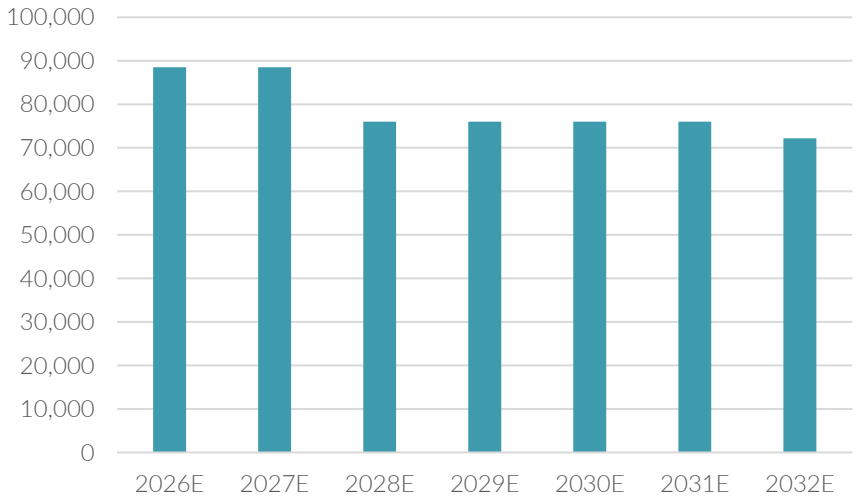
//////////	Exploration
>>>>>>>>>>	Mine Construction

Source: AAZ

Production estimates for 2026-32

Based on our current assumption, AAZ can maintain annual gold production in the range of 72,000-88,500 oz p.a. during 2026-32.

Anglo Asian Mining – gold production, 2026-32E (oz)



Source: Hardman & Co Research estimates

Below, we summarise, for each mine:

- the extent of additional resources; and
- recent progress in near-mine exploration.

The Gedabek open pit mine – excluding the potential for a likely underground mine beneath it – remains central to AAZ's medium-term outlook. Our assumption is that AAZ can exploit the 453,000 oz of additional M&I resources by 2032.

Next drilling phase at Gedabek

In 2018, the company identified the targets for the next phase of drilling as:

- exploring the down-dip and along strike extension of the mineralisation;
- drilling the down-dip extension potential to the open pit mineralisation and accessing the orebody from underground; and
- assessing the southerly extension of copper mineralisation on the periphery of the current open pit.

Mineable extensions to open pit confirmed in 2019

The company's understanding of the ore body has grown, and near-mine exploration in 2019 confirmed mineable extensions, which AAZ has stated will prolong mine life. Furthermore, the current resource model for the open pit shows that the mineralisation dips below the backwalls. As they are pushed back, further mineralisation will be accessible from the floor of the open pit. This will be the case for Open Pit 1, although the decision as to whether to access the down-dip mineralisation from the floor, or underground, has yet to be taken with regard to Pit 4 and Pit 6.

As a result, we expect the updated resources/reserves estimate for the open pit to show both a conversion of resources to reserves and the addition of new resources.

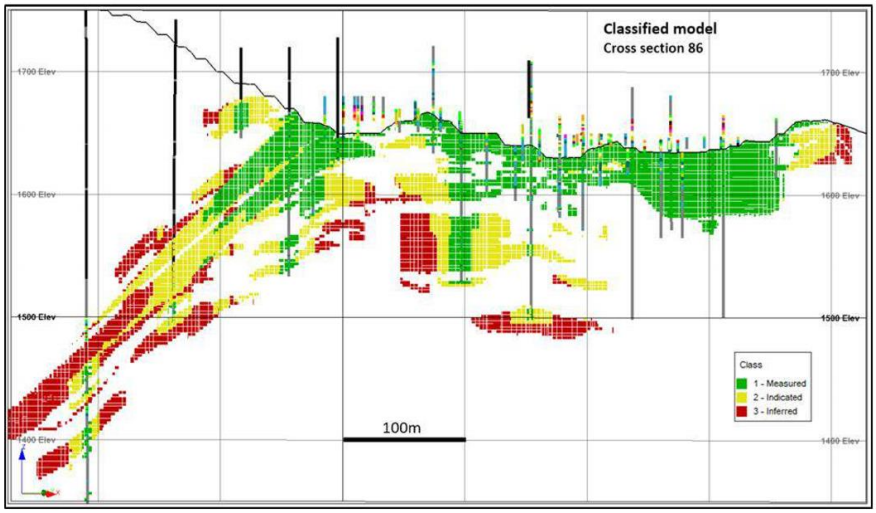
Going underground at Gedabek

With the production from the open pit almost certainly continuing well beyond 2025, it is now likely that an underground mine beneath the Gedabek open pit and Gadir could come onstream well before the former is exhausted. That assumes that an underground mine is economically viable, as we expect, in which case the 1Q'23 target for commissioning seems reasonable.

Mineralisation dips beneath the backwall

The current resource model for the Gedabek open pit shows how the mineralisation dips below the backwall of the existing open pit.

Gedabek open pit resource model



Source: Anglo Asian Mining

Tunnel linking Gadir and Gedabek open pit

Since 2017, AAZ has been constructing a tunnel from the Gadir underground mine towards a location about 100-120 metres beneath the backwall of the open pit at Gedabek. The tunnel's purpose is threefold:

- to determine whether there is sufficient mineralisation to justify an underground mine beneath the Gedabek open pit;
- to assess the future potential for the Gadir mine, which would be integrated with a potential underground mine beneath the open pit; and
- to explore the geological relationship between Gadir and Gedabek mineralisation.

Underground estimate expected in 2021

The tunnel is about half-complete and includes drilling chambers to enable exploration. During 2020, further development should take the tunnel from reaching a point beneath Pit 4 to beneath Pit 6 of the open pit. AAZ is hopeful that an

underground resource estimate will be forthcoming in about a year's time, i.e. mid-2021 with first production about two years after that. .

Greater confidence for medium-term potential at Gadir

Moving on to Gadir, where the M&I resources exceed Proved and Probable reserves by a significant 75,200 oz, the 2018 exploration programme provided greater confidence in the medium-term potential for the existing underground mine. This was followed up with an extensive drilling programme, which extended – both laterally and down-dip – the footprint of mineralisation.

The 2Q'19 and 4Q'19 reports on Geological Exploration Activities noted the following intersections, with gold grades of up to 11g/t.

Gadir exploration – notable intersections in 2019

Drill hole	Depth (m)	Length (m)	Gold (g/t)
19GUD02	42.70	0.80	9.11
19GUD09	58.40	1.60	4.45
19GUD10	99.50	1.20	11.09
19GUD17	19.00	13.50	4.47
19GUD17	36.00	1.00	6.02
19GDD08	427.10	1.00	10.05
19GDD08	447.10	2.00	10.78

Source: Hardman & Co Research

Extending footprint, both laterally and down-dip

The 4Q'19 report commented:

> *"The drilling has resulted in defining mineralisation that extend the current productive Gadir mineralisation footprint both laterally and down dip. These positive results demonstrate the expansion potential of the Gadir mine."*

Similar to the Gedabek open pit, the updated resource estimate for Gadir, due later this year, is expected to show both a conversion of existing resources to reserves and the addition of new resources.

Exploration at Gadir

Source: Anglo Asian Mining

The exploration progress made at Gadir augurs well for AAZ's plan for exploiting mineable extensions and bringing them into production in 2023, around the same time as Gedabek undeground.

Additional resources omitted from original estimate at Ugur

At Ugur, besides the additional 25,000 oz of additional M&I resources, shallow ore (five metres or less from the surface) was omitted from the original resource estimate, but was mined. Consequently, the remaining reserves are somewhat greater than published.

The 2019 exploration programme suggested a strong possibility that further resources/reserves might be found close to the existing Ugur open pit. While production has focused solely on gold so far, there are indications of a potentially significant copper or copper-gold-zinc mineralisation.

Positive drilling results

Seven surface drill holes were completed in 3Q'19 and a further four in 4Q'19, which targeted down-dip extensions to the current ore body. One drill hole returned an intersection of 1.38g/t gold, two drill holes returned copper grades of up to 2.78%, and one returned nearly 3.87% zinc.

Ugur exploration – notable intersections in 2019

Drill hole	Depth (m)	Length (m)	Gold (g/t)	Copper (%)
19GED03	762.80	1.70	1.38	0.59
19UGDD06	309.40	25.00	0.06	1.93
	310.40	5.00	0.04	2.78
	321.40	5.00	0.07	2.50

Source: Anglo Asian Mining

Going forward, the company is optimistic that step-out drilling can delineate the extent of this mineralisation. The area of significant copper mineralisation is several hundred metres from the south east flanks of the Ugur open pit. Now designated as "Ugur Deeps", it is one of the five fast-track production targets identified in the recent "Strategy Update". AAZ is aiming to begin underground mine construction in 2022 with production slated for the following year.

Gosha's geology is similar to Gedabek

The geology at Gosha is similar to that at Gedabek, but the Contract Area remains under-explored. Gosha has been producing, despite a lack of a JORC-compliant resource estimates. Exploration work in 2019 indicated potential for this to continue, at least in the short to medium term. The aim of last year's programme was to assess:

- the potential for extensions beneath the current underground mine's 6km of exploration adits; and
- continuing the exploration of new targets at Asrikchay and Khalinca.

Gold mineralisation beneath Zone 5

The near-mine exploration confirmed the dominance of gold mineralisation beneath the current Zone 5 development. The aim now is to estimate the unexploited resource that extends beneath Zone 5 – which is the target for the third of the mineable extensions outlined above.

Six notable intersections reported from the results of five drill holes reported in 4Q'19 included:

Gosha exploration – notable intersections in 2019

Drill hole	Depth (m)	Length (m)	Gold (g/t)	Copper (%)
GSHDD10	208.80	1.20	11.86	0.02
GSHDD11	296.60	0.70	3.07	0.04
GSHDD15	110.30	0.30	10.08	3.79
GSHDD16	62.00	1.00	1.75	0.03
GSHDD17	68.20	0.30	10.10	1.08
GSHDD12	117.00	1.00	1.68	0.02

Source: Anglo Asian Mining

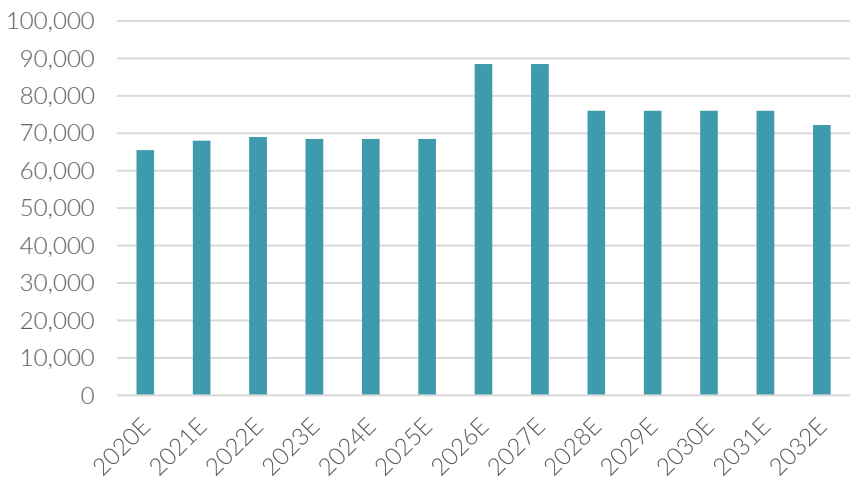
Significant polymetallic potential at Asrikchay

Asrikchay and Khatinca are located 7km and 4km, respectively, from the existing Gosha mine. A significant polymetallic drill hole intersection was found at Asrikchay, with 4.1 g/t gold, 112.2 g/t silver and 3.1% copper, and further work is ongoing to assess the two deposits. Going forward, the priority is to further explore the polymetallic potential at Asrikchay.

Gold production estimates to 2030

With our increased confidence that AAZ can exploit at least 50% of the additional M&I resources, our new gold production profile for 2020-30 is as follows.

Anglo Asian Mining – gold production, 2020-32E (oz)



Source: Hardman & Co research estimates

Bigger system potential at Gedabek and Ordubad

AAZ has time to explore potential at Gedabek and Ordubad

In our opinion, AAZ has sufficient gold reserves/resources to underpin production until 2030, and maybe longer. This provides the company with time to complete further exploration work, particularly in the Gedabek and Ordubad Contract Areas.

Both may be bigger mineralised systems in their own right

In *our report on AAZ*, published last year, we explained that, from our assessment of the existing mines/deposits, their geology, recent exploration work and the regional geology of the Tethyan Tectonic Belt (TTB), we believed that the Gedabek and Ordubad Contract Areas had potential to become major mineralised "systems" in their own right. In specific terms:

- Gedabek, Gadir and Ugur could be part of a much larger porphyry-epithermal system; and/or
- the deposits in the Ordubad Contract Area could be a large copper-gold porphyry system.

Summary of supporting evidence

This potential is supported by:

- favourable regional and continental geology;
- the results of the Z-Axis Tipper Electromagnetic System (ZTEM) airborne geophysical survey in 2018;
- evidence of extensive further mineralisation adjacent to the existing mines at the open pit, Gadir and Ugur (in part described in the previous section); and
- the large number and broad distribution of confirmed mineralisation and targets (including possible porphyry structures) at both Gedabek and Ordubad.

Defining porphyry deposits

Porphyry deposits are formed by hydrothermal fluids originating in a large magma chamber deep below the surface. The United States Geological Survey (UAGS) defines porphyry systems as follows:

> *"The mineralized porphyry systems form in and around the upper parts of the intrusive systems. Deposits can be zoned with copper- and (or) molybdenum-rich ore zones, featuring barren, low-grade pyritic cores surrounded by pyritic haloes and by peripheral base- and precious-metal bearing veins. Deposits reach about 2 km in size, and metal and alteration haloes extend about 8 km in diameter. In general, porphyry copper-molybdenum deposit systems are associated with adjacent skarn and (or) polymetallic-vein deposits of porphyry-related types (John and others, 2010)...In copper-rich porphyry deposits, copper-bearing minerals are disseminated in host rock as well as in veins and breccia distributed in host rock. The deposits are large but the ore is of relatively low to moderate grade."*

World's largest copper-gold mines based on porphyry deposits

The majority of the world's largest copper-gold mines are based on porphyry deposits, although they may also have epithermal vein systems. Examples include:

- Chuquicamata (the largest) and Escondida in Chile;
- Bingham Canyon in the US;
- Grasberg in Indonesia; and
- Oyu Tolgoi in Mongolia.

They tend to cluster in established mineral provinces

Porphyry deposits tend to be found in groups in mineral provinces, especially those located on linear orogenic belts, like the Andes in South America, the North American Cordillera and the TTB. Orogenic belts form at convergent tectonic plate margins, when a continental plate crumples and is pushed upwards to form mountain ranges.

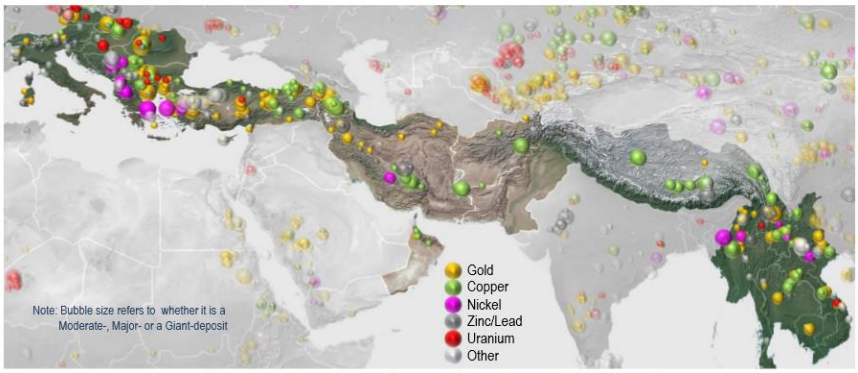
Tethyan Tectonic Belt (TTB)

The first step in assessing the potential for the Gedabek and Ordubad Contract Areas to be large porphyry-epithermal systems is to consider their locations in terms of the broader regional and continental geology.

More than 400 significant mineral deposits on TTB

Both deposits are located on the TTB, also known as the "Tethyan Magmatic Arc" or the "Tethyan Orogenic Belt", which was formed from the collision of the African, Arabian and Indian tectonic plates.

Discoveries in the TTB (all years)



Countries along the Tethyan Belt

	Au	Cu	Ni	Zn/Pb	U	Other	TOTAL
No.	154	124	28	44	22	53	425
Metal	440.6 Moz	208.5 Mt	18.5 Mt	130.6 Mt	462 kt U	xx	

5.7% of all deposits in the World

Source: MinEx Consulting

Stretching across two continents

The TTB extends across two continents, from Corsica and Italy in western Europe, through central and south eastern Europe, Azerbaijan, Iran, Pakistan, through the Himalayan region, and down into Southeast Asia. Besides Azerbaijan, the TTB incorporates all, or part (e.g. China and India), of 33 countries. When investors think of gold and copper mining "hotspots", their immediate thoughts might turn to Chile, Nevada, Africa or Australia. There are more than 400 significant mineral deposits along the TTB, around 250 of which were discovered in the past five decades and nearly 70 in the past decade.

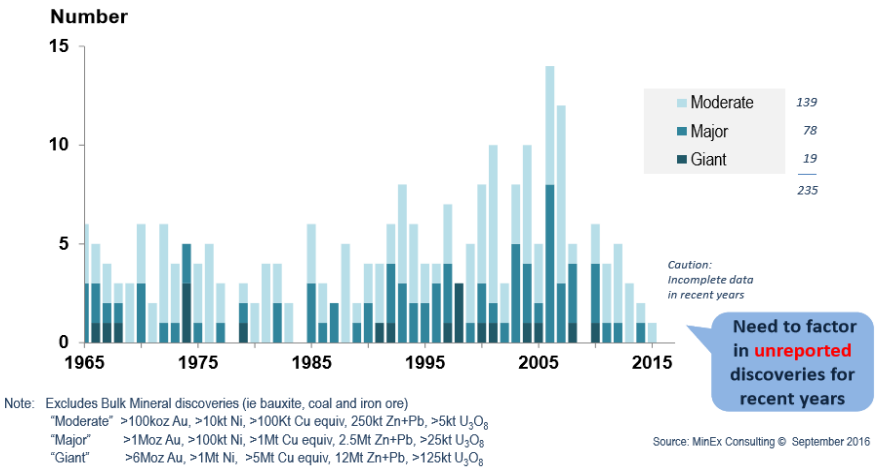
Mainly gold and copper

Almost two thirds of all mineral discoveries in the region are gold and/or copper, which have accounted for more than 80% since 1965. The remainder are mainly nickel or zinc/lead, along with a number of uranium deposits.

19 "Giant" discoveries between 1965 and 2015

MinEx Consulting estimates that, during the period between 1965 and 2015, 19 mineral discoveries on the TTB could be classed as "Giant" and a further 78 as "Major". The classification for "Giant" is more than 6m oz of gold, 5m tonnes of copper, 1m tonnes of nickel, etc.

TTB: discoveries by size, 1965-2015



Source: MinEx Consulting

MinEx classifies the TTB as the second-best region for mining exploration

Based on the 10 years from 2006-15, MinEx estimated that the TTB was the second-best region in the world for mining exploration, based on the ratio of exploration spend versus the estimated value of deposits.

TTB: value from exploration spend

How does The Tethyan Belt compare to the Rest of the World?

Spend & performance by Region: 2006-2015

The Tethyan Belt was the second-best region (after Africa) to explore in the World

i.e. "Bang-per-Buck"

Region	Exploration Spend (2015 $b)		No of Discoveries #		Tier 1+2 Discoveries		Estimated Value (2015 $b)		Value / Spend
Australia	$13	9%	108	17%	9	12%	$8	8%	0.62
Canada	$25	17%	71	11%	13	18%	$13	13%	0.51
USA	$11	7%	24	4%	5	7%	$8	8%	0.74
Latin America	$35	24%	105	17%	13	18%	$19	21%	0.58
Pacific/SE Asia	$8	5%	24	4%	2	3%	$4	4%	0.51
Africa	$20	14%	157	25%	18	25%	$23	24%	1.13
W Europe	$4	3%	37	6%	1	1%	$2	2%	0.55
Rest of World	$32	22%	106	17%	12	16%	$18	19%	0.58
	-----	------	------	-------	------	-------	--------	-------	-------
TOTAL	$146	100%	632	100%	73	100%	$96	100%	0.65
Tethyan Belt	*$4.7*	*3.2%*	*52*	*8.2%*	*4*	*5.5%*	*$4.1*	*4.3%*	*0.87*

Source: MinEx Consulting © September 2016
Note: Analysis excludes bulk minerals, and excludes satellite deposits found within existing camps
Discoveries refer to Moderate-, Major- and Giant-sized deposits.
"Rest of World" includes China, FSU and Eastern Europe
The Estimated Value is approximate only, and ignores the value of unreported discoveries

As more discoveries are drilled-out & reported, these returns should improve over time

Source: MinEx Consulting

Copper-molybdenum-gold porphyry deposits are the most common

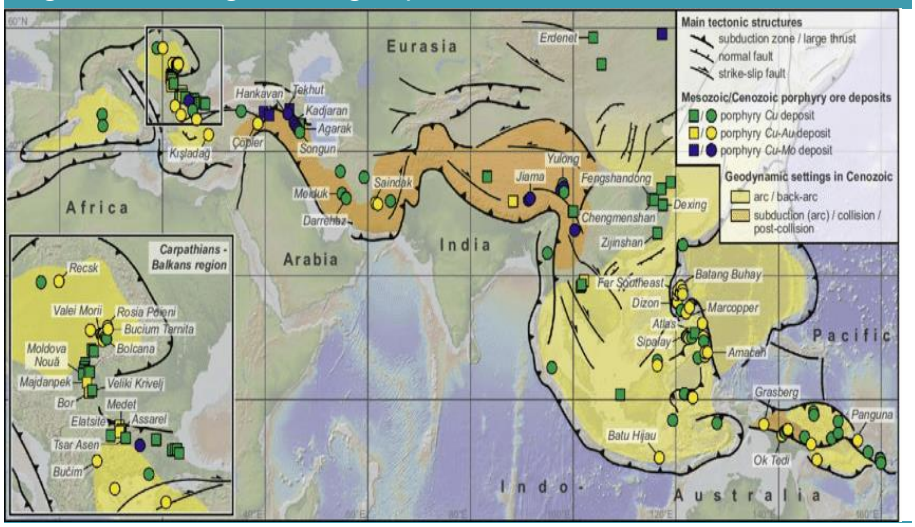
In his paper, *Tectonic, magmatic and metallogenic evolution of the Tethyan orogen: From subduction to collision*, Jeremy P. Richards, from the University of Alberta, noted that copper-molybdenum-gold porphyry deposits are the most common on the TTB:

> *"This paper reviews the tectonic, magmatic, and metallogenic history of the Tethyan orogen from the Carpathians to Indochina. Focus is placed on the formation of porphyry Cu±Mo±Au deposits, as being the most characteristic mineral deposit type formed during both subduction and collisional processes in this region…They are found throughout the orogen, but some sections are particularly well-endowed, including the Carpathians–Balkans–Rhodopes, eastern Turkey–Lesser Caucasus–NW Iran, SE Iran–SW Pakistan, southern Tibet, and SE Tibet– Indochina."*

Distribution of deposits across the TTB

It is noteworthy, from Richards' analysis, that he highlights the Lesser Caucasus as being one region of the TTB that is "particularly well endowed" with copper-molybdenum-gold porphyry deposits. The following chart shows their distribution across the whole TTB.

Anglo Asian Mining: AISC of gold production ($/oz)

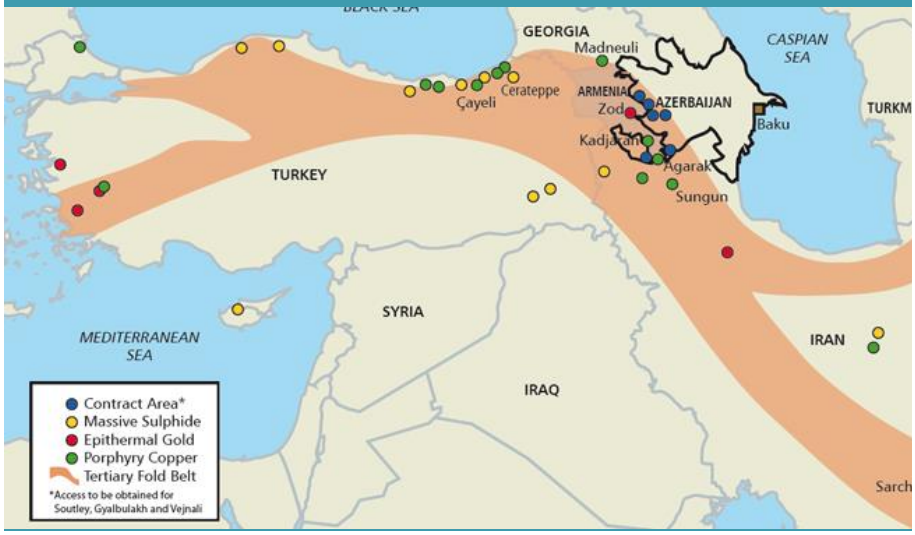


Source: 3D Subduction dynamics, Menant et al, 2018

Cluster of major copper-gold deposits close to Gedabek (and Ordubad)

Narrowing the focus to the Turkey-Azerbaijan-Georgia-Iran section of the TTB shows how a cluster of major copper and gold deposits, both porphyry and epithermal, are located close to Gedabek (and Ordubad).

Major copper and gold deposits in Turkey-Azerbaijan-Georgia-Iran section



Source: Anglo Asian Mining

Large Sungun mine nearby

Just south of the Azerbaijan border is the large Sungun copper porphyry mine, which has an estimated 995m tonnes of copper ore and is in the same regional area as Ordubad.

Gedabek Contract Area

Part of larger porphyry-epithermal system?

We begin our assessment with AAZ's flagship Gedabek Contract Area, which currently incorporates the Gedabek open pit, Gadir and Ugur mines, and could be part of a much larger porphyry-epithermal mineralisation system. The Gedabek Contract Area is located within the large Gedabek-Garadag volcanicplutonic system. The mineralisation is characterised by a complex internal structure indicative of repeated tectonic movement and multi-cycle magmatic activity. This has led to several stages of mineralisation emplacement, which AAZ is 10 years into extracting.

Gedabek re-classified…

When AAZ published the revised JORC mineral resource and reserve estimate for the Gedabek open pit in September 2018, it re-classified the Gedabek mineralisation – from a porphyry-style system to a high-sulphidation (HS) epithermal system.

At the time, the company believed that the scale and grade distribution, presence of high-grade veins and hydrothermal alteration, e.g. argillic, are indicative of HS epithermal mineralisation – *at least to the depth currently explored*. Furthermore, epithermal gold deposits typically occur in volcanic arcs with ages similar to the volcanism. Gedabek and Gadir deposits are located on such an arc.

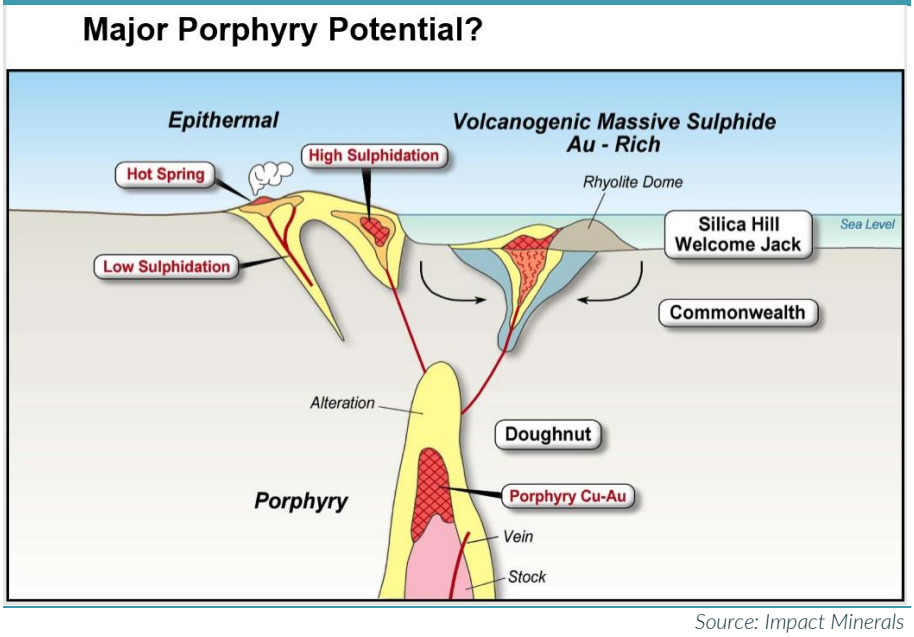
…as low-sulphidation epithermal deposit

The resource report for Gadir, published in March 2019, classified it as low-sulphidation (LS) epithermal. These HS and LS epithermal types of deposit generally form at relatively shallow depths, hosted by volcanic rocks. The two deposit styles (HS and LS) form from fluids of different chemical composition.

Potentially upper part of system linked at depth to porphyry

In our opinion, the classification of the Gedabek open pit as HS-epithermal, the nearby LS epithermal mineralisation at Gadir and evidence of porphyry are likely to be indicative of a much larger mineral system. The HS/LS-epithermal mineralisation is probably the upper part of a system, which is linked at depth with porphyry mineralisation in a way similar to the illustration by Impact Minerals, shown in the chart below (ignore references to its deposits).

Diagram of epithermal and porphyry system



Source: Impact Minerals

Natural History Museum helping to assess geology at Gedabek

Exploration of the Gedabek Contract Area has been at relatively shallow depth and porphyry mineralisation tends to occur at depth, so it is possible that current workings sit above a major porphry system. In November 2019, a porphyry expert from the National History Museum began assessing the deposit, and we await the results.

ZTEM survey supportive

Supporting the existence of a porphyry-epithermal system was the airborne geophysical survey conducted at Gedabek using a ZTEM. The ZTEM system is suited to identifying targets for porphyry copper-gold and epithermal copper-gold-silver exploration. The key elements from the airborne survey were:

- it covered the entire contract area, covering 3,385 linear kilometres; and
- the geophysical anomalies and signatures identified 31 new drilling targets, six of which were consistent with porphyry systems.

Findings positive, but more work to be done

The results potentially indicated a much larger mineralised system in the Gedabek Contract Area – including the potential for a porphyry system. However, more work is needed to understand whether mineralisation is linked at depth and laterally. However, it was very clear from last month's "Strategic Update", that AAZ's management team has returned to the view that Gedabek is a porphry system.

"Gedabek is highly prospective with the potential to host a large porphyry system. Porphyry evaluation is planned for three years from 2021 to identify a mineral deposit suitable for mine development by 2024. A porphyry ore body could potentially provide sufficient ore to extend production into at least the mid-2030s."

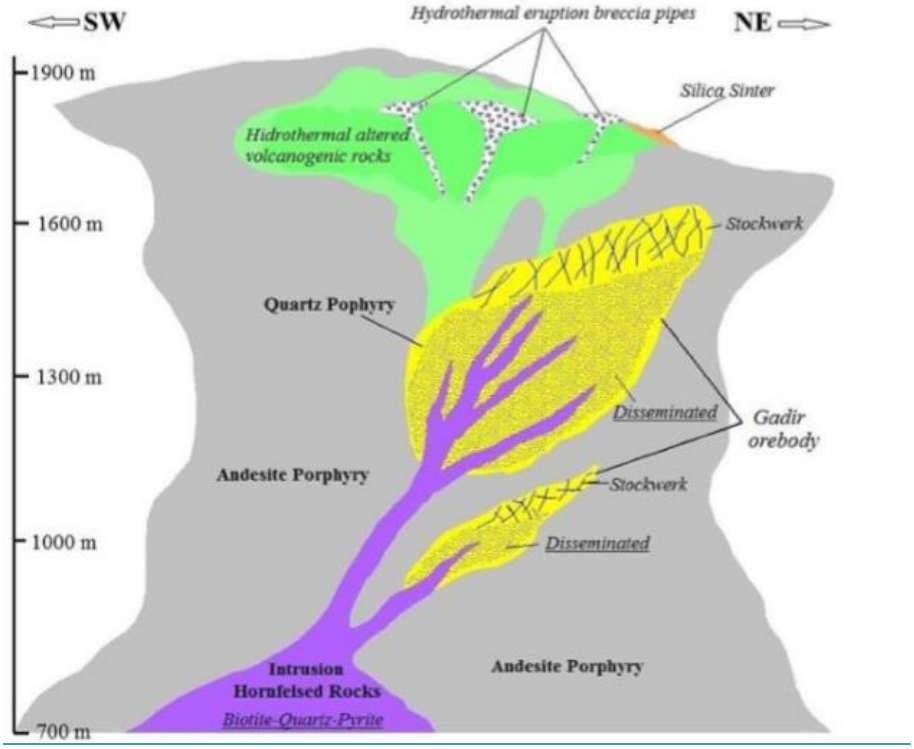
The CEO, Reza Vaziri, commented:

> *"Gedabek also has exceptional potential to host a porphyry system which could provide tens of millions of tonnes of ore and increase mine life through to the mid-2030s and beyond."*

...a larger regional mineral-forming system"

From a "system" perspective, the linking of Gadir and the Gedabek open pit is potentially significant. In the full resources report for Gadir, released in March 2019, was the following comment and related diagram:

Idealised cross-section of the geological model through the Gadir deposit



Source: Anglo Asian Mining, Universal Journal of Geoscience

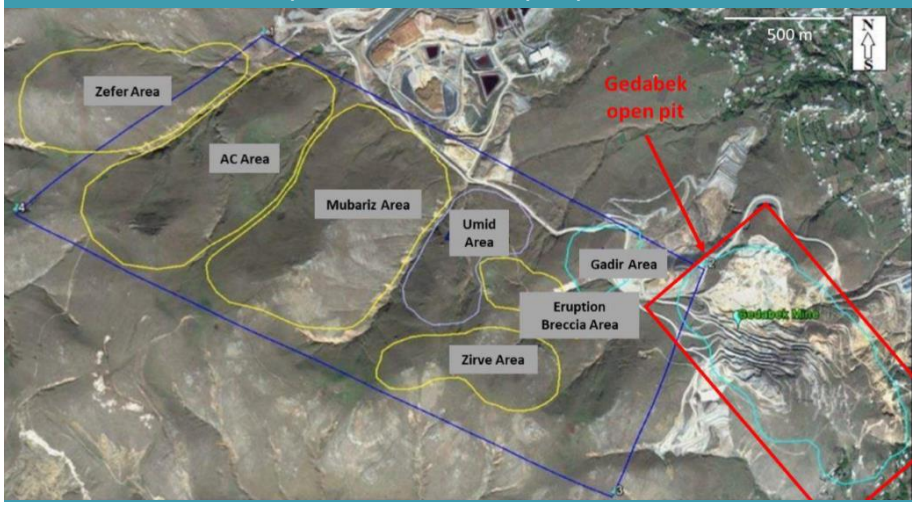
Several other deposits close to the open pit

The report also included the following comment.

> *"The discovery of Gadir and it being classified as LS-type, in addition to the other known mineral occurrences and deposits of varying mineral content in the Gedabek Contract Area, lends support to the existence of a large regional mineral-forming system."*

We noted earlier the success of the 2019 exploration programme in confirming lateral and down-dip extensions to mineralisation around the existing open pit. There are also a number of other known deposits close to the existing open pit, some of which – including Gadir – are shown in the photograph below.

Gedabek: location of deposits close to the open pit



Source: Anglo Asian Mining

Exploration work re-started at three targets

The 2018 exploration programme also saw drilling at the Umid target (also shown in the above photograph) and sampling work at Duzyurd. While the Ugur depsoit was being fast-tracked into production during 2017-18, exploration work on two other targets with initial evidence of mineralisation, Soyudlu (gold) and Bittibulag (copper-gold), was temporarily suspended. In 2020, further work is planned at both targets, along with Maarif (copper).

Two potentially significant targets identified in 2019

The 2019 exploration programme made some significant progress on two more prospective mineral occurences in the northern part of the Contract Area. These may have greater near-term potential and are also at shallower depth:

- Avshancli: a gold-copper district located 10.5km north east of the Gedabek open pit; and
- Gilar: a gold target located 2km south of Avshancli.

It is worth noting that almost all of the geological alteration (the change in rock composition due to hydrothermal liquids) in the Contract Area is in a northerly direction, with more evidence in its northern part, which might prove significant.

Avshancli a "potentially significant mineral district"

AAZ is describing Avshancli as a "potentially significant mineral district", which indicates how much potential the company believes it might have. The discovery resulted from field mapping between two of the ZTEM targets. There are three zones of mineralisation, Avshancli-1 and Avshancli-2, which are gold-copper, and Avshancli-3, which is a copper-gold zone.

The recent "Strategy Update" (noted above) denoted Avshancli-1 and Avshancli-3 as fast-track production targets. While ore could be hauled back to the exsting processing facilities, the company will consider building processing facilities next to the open pit mines if they are justified by the size of the deposits. This should be determined by the end of 2020, with the mines being potentially commissioned in 2022.

Exploration at Avshancli

Source: Anglo Asian Mining

Good gold and copper grades from initial exploration

The initial exploration work yielded outcrop surface samples with copper grades of up to 3.56%, and trench sampling at Avshancli-1 yielded gold grades of up to 8.85g/t. In Q4'19, AAZ reported on the trenching and drilling programmes at Avshancli, which yielded the following intersections.

Avshancli exploration – notable intersections in 2019

Drill hole	Depth (m)	Length (m)	Gold (g/t)	Copper (%)
AV1TR1	4.00	1.00	5.27	0.30
	5.50	4.50	4.29	0.49
19BFDD05	0.90	1.10	7.03	0.45

Source: Anglo Asian Mining

Gilar is also designated as one of the five fast-production targets. Having identified gold at the surface hosted in a quartz vein, exploration during the next 18 months is aimed at targeting the size and continuity and size of the mineralisation.

The Zefer Cell 9 deposit is located several hundred metres north west of the existing leach pad processing facility and lies on the mineralisation trend that goes through the Gedabek open pit. While fast tracked for production, the greater depth of mineralisation compared with the other four targets is the reason that the target for commissioning the mine is not until 2025.

Ordubad Contract Area

15 known deposits in Ordubad Contract Area

The Ordubad deposit covers an area of 462 sq km and is located in the south east corner of the Nakhchivan Autonomous Republic of Azerbaijan. Gold was first discovered at the Shakardara deposit during 1956-58. There are currently 15 known deposits at the Ordubad site, six of which had resource estimates that were classified during the Soviet era.

Resource estimates from Soviet era

The table below is from AAZ's Admission Document to the AIM market and shows the gold and copper resource estimates for the six Ordubad deposits (as well as Gedabek and Gosha) under the USSR State Committee on Reserves.

Anglo Asian Mining: AISC of gold production ($/oz)

Deposit	*Category*	*Ore k t*	*Cu k t*	*Au k oz*[3]	*Au eq k oz 50% Cu discount*[4]
Shakardara (Ordubad)	P_2[2]	156,000	624	5,805	7,875
Misdag (Ordubad)	P_1	350,000	1,505	-	4,992
Shalala (Ordubad)	$C_2' + P_1$	20,600	103	-	342
Piyazbashi (Ordubad)	$C_2 + P_1$	890	-	189	189
Agyurt (Ordubad)	$C_2 + P_1$	1,130	14	246	294
Diakhchay (Ordubad)	$C_2 + P_1$	14,400	63	-	210
Gosha	$C_2 + P_1$	2,750	-	424	424
Gedabek	$C_2 + P_1$	19,200	69	1,026	1,255
Subtotals		564,976	2,378	7,690	15,581
Upside potential (further detailed at Para 5.10 of the CPR)			10,000	45,000	78,105
Totals			12,378	52,690	93,686

Source: Anglo Asian Mining

Comparison with western classification

In the opinion of the company's mining consultant (Behre Dolbear), about half of C2 resources under the Soviet classification would have qualified as Indicated Resources under western standards, with the remainder, and some P1 resources, qualifying as Inferred Resources. P2 resources, it argued, would "generally have little quantitative significance", although, in Shakardara's case (due to the sampling density), they might qualify as Inferred Resources.

Ordubad was going to be location of AAZ's first mine

It was Ordubad, not Gedabek, that was AAZ's original focus for developing its first mine in the mid-2000s. A drilling programme, completed in March 2007, confirmed gold grades in veins at the Piyazbashi target, which were approximately equivalent to data compiled during the Soviet era. The company's then mining consultants, SRK Consulting, subsequently advised that Gedabek had the greater potential and should be prioritised in terms of producing a feasibility study.

Exploration ramped up again in 2018

After a hiatus of about a decade, AAZ began to ramp up the exploration programme at Ordubad in 2018. This began with road clearing to reach exploration adits and trenching to confirm gold and copper mineralisation, on both the surface and underground.

2019 drilling programme included new targets

In 2019, the company began drilling programmes at new targets:

- Dirnis: a copper-silver vein target, which is further down the same valley as Shakardara; and
- Keleki: a gold target with mineralisation contained in quartz veins

Dirnis and Keleki drilling results

Drilling results from both Dirnis and Keleki, published in 4Q'19, returned some very significant intersections.

Ordubad exploration – notable intersections in 2019

Drill hole	Depth (m)	Length (m)	Gold (g/t)	Copper (%)
DRDD06A	85.00	2.00	203.89	0.09
DRDD09A	4.10	4.10	10.61	0.67
DRDD09B	3.50	3.50	8.76	2.69
	7.50	8.50	7.23	1.23
DRDD13A	41.40	0.40	0.03	4.51
DRDD21	25.00	1.00	126.61	0.08
KLDD03	20.00	0.80	158.80	0.08
	86.50	1.00	86.06	0.04
	142.50	0.70	249.17	0.15
KLDD05	106.00	1.00	139.56	0.14

Source: Anglo Asian Mining

2020 exploration programme

A new geological map for the Ordubad Contract Area, covering 244 sq km, is expected to be completed shortly, based on WorldView-3 satellite remote sensing. The 2020 exploration programme is expected to amount to 7,200m of drilling, focusing on copper and gold targets between Shakardara and Piyazbashi, Aylis and Dirnis. This work should help AAZ to assess whether the deposits in the Ordubad Contract Area are part of a bigger copper-gold porphyry system.

Developing the Ordubad system

AAZ's current thinking on Piyazbashi and Agyurt is that the deposits may not be large enough in isolation to warrant processing capacity and that their high elevation might be problematic. However, as part of a number of producing deposits with central processing, the economics could be favourable. Down in the valley from Piyazbashi and Agyurt is Shakardara, which has a relatively central position in terms of several of the deposits. Piyazbashi is north east and Agyurt north west of Shakardara, while Dirnis is to the south and Keleki to the south east.

Shakardara could be the centre of a copper-gold porphyry system

A thesis being considered by AAZ is that the heat source of the mineralised system, if one exists, is close to Shakardara. If so, it might be the centre of a copper-gold porphyry system, with quartz veining further out along its periphery.

In a statement, *Overall Progress of Exploration Programme*, released in February 2020, AAZ noted, with regard to Ordubad:

> *"It is apparent that the copper and gold upside potential is significant…The region around Dirnis also has significant copper potential with malachite mineralisation extensive on surface. The recent discovery of the Aylis gold veins is thought to be part of the same mineralising "hub" demonstrating the extent of mineralisation and the near surface proximity highlighting the open pit potential of the area."*

Although no specific mineral target is yet to be identified for bringing into production, the "Strategy Update" from 21 May 2020 was unsurprisingly upbeat about Ordubad's prospects,

> *"the region is considered very prospective, hosting a large number of gold and copper mineral deposits. The current geological model being tested is that of the possibility of a large porphyry system. This is supported by the presence of operating porphyry mines in adjacent countries hosted within the same mineral belt. The NHM team, following their visit to Ordubad last year, stated that the potential indicators suggest that the geochemistry of the region is favourable for porphyry formations. A targeted programme to evaluate the highest priority assets to commence production in Ordubad will be the next stage of development."*

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