

21st March 2019

Sector: Mining

Commodities:

Chrome, PGMs, Zinc, Lead, Vanadium

Market data

Ticker	JLP
Price (p/sh)	2.45p
Shard valuation (p/sh)	6.00p
12m High (p/sh)	3.13p
12m Low (p/sh)	2.02p
Shares (m)	1855.3m
Mkt Cap (£m)	33.4m
Markets	AIM & JSX



Source: LSE

Description

Jubilee Metals Group plc (“Jubilee” or “JLP”) is a Johannesburg and London based mine waste processing and metals recovery company listed on AIM (JLP) and the JSE (JBL). The company has operating assets in South Africa and has recently expanded its footprint to Zambia.

www.jubileemetalsgroup.com

Board & key management

Non-Exec Chairman	Colin Bird
Non-Exec Vice Chair	Dr Phosa
CEO	Leon Coetzer
NED	Christopher Molefe
Technical Director	Evan Kirby

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Jubilee Metals Group

Kabwe is “on the way”: Sable Zinc acquisition

Jubilee has executed a sale and purchase agreement with Glencore for the acquisition of the Sable Zinc Kabwe refinery in Zambia for a consideration of US\$12m. We view the acquisition as a major milestone for Jubilee, putting Kabwe firmly on the road to development and near-term cash flow. The Sable Zinc refinery is located adjacent to JLP’s Kabwe tailings resource and the acquisition provides considerable upfront capex savings along with a vastly shorter time frame to production. The acquisition and re-capitalisation of the plant are fully funded through a \$8m secured convertible loan note and £11m equity placing.

- ▶ **Rationale.** Access to the refinery means that Jubilee does not have to construct its own dedicated zinc recovery circuit and other processing infrastructure. JLP estimates that this will bring forward the first saleable product from Kabwe to within a year of taking control of the refinery reducing the build time by 18 months. We note that the \$12m acquisition cost comes in at significantly less than our previous assumption of \$20m.
- ▶ **Capital cost savings.** JLP estimates overall capital including the acquisition cost to produce first metal is reduced to \$24m. We had assumed \$20m acquisition and \$30m capex in our ballpark estimate.
- ▶ **Lower risk.** Refurbishing an existing refinery is considerably lower risk than building and commissioning a brand-new facility, especially considering Sable Zinc’s location.
- ▶ **Production plan.** JLP expects to initially produce zinc concentrate and vanadium pentoxide before ramping up to produce zinc metal, vanadium pentoxide and a lead concentrate. The project targets to produce annually over 8,000t of zinc, 1,500t of vanadium and 15,000t of lead as it ramps up to full capacity over a 2-year period. The 12-month implementation plan implies that JLP expects to be producing first product by the end of Q1 2020 if everything runs according to plan. Phase 2 will involve the commissioning of the existing EW circuit at Sable Zinc to produce zinc metal and a higher purity lead concentrate.
- ▶ **Funding.** JLP has secured a \$8m secured convertible loan note and £11m through an equity placing. This fully funds both the acquisition cost and the capital required to recapitalise the refinery.
- ▶ **Operational update.** It’s all go in South Africa. **PlatCro PGMs** is gearing up to commence PGM recovery during May 2019 whilst the recently acquired **PlatCro chrome** operation is already producing earnings ahead of projections. The **DCM fine chrome** plant reached commercial production this month and JLP will look at rolling this capability out to other operations. Despite a delayed start to 2019 production, **Hernic** still delivered strong earnings for the 1st two months of the year and is expected to return to previous levels from March.
- ▶ **Valuation.** Our current indicative valuation for Jubilee Metals remains 6p/sh fully-diluted (1,855m shares) factoring in changes to our model on the back of the Sable acquisition which are net neutral on our valuation overall. We continue to see an exciting couple of years ahead as JLP ramps up production at multiple operations in South Africa whilst pressing ahead with a game-changing near-term production long-life asset in Zambia. The acquisition helps JLP realise its strategy of adding base metals and vanadium to the production profile and expanding into Zambia and reducing overall exposure to South Africa.

The acquisition reinforces the key benefits of Jubilee’s strategy of focusing on tailings projects. These typically have very low capital intensity, shorter development lead times and offer no exposure to primary mining risk. Kabwe is a prime example of this model and once in production has the potential to catapult Jubilee to another level in terms of production and earnings. JLP is cementing its position as a partner of choice in the tailings retreatment sector.

Acquisition of Sable Zinc Refinery

- ▶ **Acquisition of Sable Zinc refinery from Glencore.** Jubilee has executed a sale and purchase agreement with Glencore for the acquisition of the Sable Zinc Kabwe refinery in Zambia for a consideration of US\$12m.
- ▶ **Rationale.** We view the acquisition of the Sable Zinc refinery as a major milestone for Jubilee, firmly putting Kabwe on the road to development and near-term cash flow. The financing deal ensures that Kabwe is fully funded to reach operational targets. Furthermore, the acquisition provides major benefits to the project:
 - **Reduces the execution and development timeline.** Access to the refinery means that Jubilee does not have to construct its own dedicated zinc recovery circuit and other processing infrastructure. Jubilee estimates that this will bring forward the first saleable product from Kabwe to within 12 months of taking control of the refinery, i.e. Q1/Q2 2020.
 - **Capital cost savings.** This comes with a considerable capex saving. Jubilee estimates that total capital including acquisition is \$24m, implying \$12m acquisition and \$12m capex for refurbishment.
 - **Lower Risk.** Refurbishing an existing refinery is considerably lower risk than building and commissioning a new facility, especially considering Sable Zinc's location and its history of processing Kabwe type ore.
 - **Long LOM.** We estimate Kabwe's mine life at c.10 years with scope for considerably longer given the tailings resource potential on site. This should help to underpin JLP's business going forward given that some of the operations in South Africa have shorter LOMs.
- ▶ **Production plan.** The project targets to commence at an initial processing rate of 20tph producing a zinc concentrate and vanadium pentoxide before ramping up to a targeted 40tph producing zinc metal, vanadium pentoxide and a lead concentrate. The project targets to produce annually over 8,000t of zinc, 1,500t of vanadium and 15,000t of lead as it ramps up to full capacity over a 2-year period. The 12-month implementation plan means that JLP expects to be producing first product before the end of Q1 2020, early Q2 2020. The first Phase will involve the production of zinc concentrate, V₂O₅ concentrate and lead concentrate. Phase 2 will involve the commissioning of the existing EW circuit at Sable Zinc to produce zinc metal and a higher purity lead concentrate.
- ▶ **About Kabwe.** One of the oldest mines in Zambia, Kabwe started mining operations in 1904 until being placed on care and maintenance in 1994 by The Zambian Consolidated Copper Mines (ZCCM). Site access is good with the project accessible through a network of tarred roads. The estimated surface resource is 6.4Mt (3.2Mt JORC) containing an estimated 356kt Zn, 351kt Pb and 21.7kt vanadium. Jubilee holds a 91.5% beneficial interest in the Kabwe project company with an option to move to 100%. Jubilee retains 100% of earnings until capital payback.

Acquisition terms

- ▶ **US\$12m total acquisition cost.** Jubilee will acquire Sable Zinc Kabwe Limited from Glencore for a total consideration of US\$12m payable as follows:
 - **1st instalment of \$6m** within 5 business days after fulfilment or waiver of the conditions precedent to the loan agreement (“closing date”).
 - **2nd instalment of \$3m** on the earlier of the date falling 30 days after the date of completion of the conversion of the Sable Zinc Kabwe plant to a zinc processing plant and the date falling 6 months after the Closing Date.
 - **Final instalment of \$3m** on the earlier of the date falling 30 days after the date of commencement of commercial production and the date falling 6 months after the Second Instalment.
- ▶ **Conditions.** Jubilee has received Zambian ministerial approval for the transaction and previous conditions placed on the Kabwe mining licences have been waived. The acquisition is conditional upon fulfilment of the following conditions precedent: **Competition act.** Approval and/or clearance of the transaction under the Zambian Competition Act. **Acid supply agreement.** Conclusion of an acid supply agreement for the sale of acid produced at the plant, by Sable Zinc Kabwe, to Glencore until such time as such acid is required for the operations of Sable Zinc Kabwe in the production of saleable products.

Funding

Project Loan

- ▶ **\$8m debt funding.** Through its wholly owned subsidiary Braemore Holdings (Mauritius) Pty Ltd, Jubilee has secured debt funding of US\$8m from ACAM LP, a Jersey limited partnership acting through its general partner ACAM GP Limited.
- ▶ **Secured.** The funding is secured over Jubilee’s Zambian assets, bears interest at 12% per annum and is repayable in full on the repayment date (36 months from the date of execution of the funding agreement).
- ▶ **Conversion.** At any time that the loan is outstanding, ACAM may at its absolute discretion, by conversion notice, elect to convert the loan and all accrued but unpaid interest into 5% unsecured convertible loan notes with a conversion price of 2.81 pence (subscription price) and a maturity date which falls on the third anniversary of the Closing Date.
- ▶ **Prepay.** During the loan period, Jubilee may notify ACAM of its intention to prepay the whole of the loan balance by prepayment notice. On the date of any prepayment Jubilee will issue warrants to ACAM to a value equal to 50% of the amount of the loan and all accrued but unpaid interest thereon divided by the Subscription Price.

Equity component

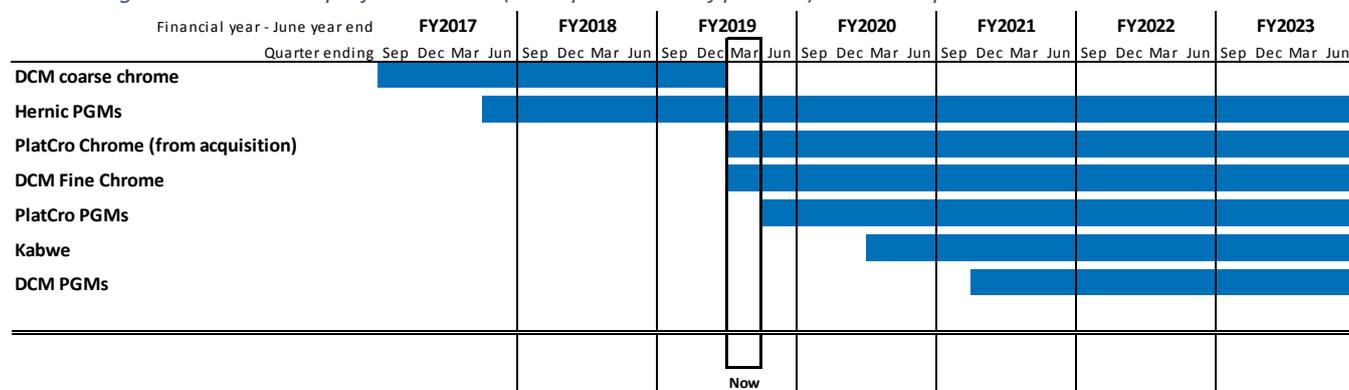
- ▶ **£11.07m Equity.** Jubilee has completed a placing of 491,814,444 new ordinary shares at a price of 2.25p/sh to raise approximately £11.07m before expenses.
- ▶ **Admission.** Application will be made for the Placing Shares to be admitted to trading on AIM and to be listed on the AltX of the JSE Limited, which is expected to take place on or about 28 March 2019.
- ▶ **Share Capital.** Following Admission, the Company’s total issued share capital will comprise 1,855,300,673 ordinary shares.

Shard viewpoint.

We view the acquisition as a good deal for Jubilee, and one that comes with tangible project development benefits. The lower capex and the shorter implementation time reinforce Jubilee’s strategy of focusing on tailings projects which typically have a very low capital intensity and shorter development lead times, and no exposure to primary mining risk. The equity component has also bolstered institutional presence on JLP’s register.

- **Short lead time.** Pitching Kabwe against exploration and development timelines for a typical base metal deposit and the contrast is startling. For example, extensive research by Shodde (Minex Consulting, March 2014) indicates that the average delay between discovery and mine start up is 15 years for a zinc/lead deposit (17.1 years for a copper deposit) and this does not include however many years were spent on the initial exploration phase. In contrast, JLP plans to be in production within a year at Kabwe.
- **Cheaper than expected.** The \$12m acquisition cost comes in at significantly less than our previous working assumption of \$20m acquisition cost. Our previous assumption was based the fact that there are no other major zinc refineries in the vicinity and we surmised that Sable Zinc would be the prime contender. We pegged our acquisition cost at 70% of the \$28m purchase price paid by Glencore to Metorex in 2011. Subtracting the \$12m acquisition cost implies \$12m capex for refinery refurbishment which is less than our original \$30m ballpark estimate.
- **Here comes the ramp up.** JLP now looks to be finally turning the corner, with a raft of project starts scheduled to come on stream. The recently required PlatCro chrome operation is in full swing, the DCM Fine chrome plant is now in production and PlatCro PGMs is due to start first PGM production in May 2019. The next cab off the rank is Kabwe where JLP sees first production approximately 12 months after taking control of the refinery. Thus, by the end of Q1, early Q2 2020, JLP should have five operations in production. This could be transformational if the company successfully executes this project pipeline, providing a solid production base. Note that the table below detailed committed projects only and excludes several other projects currently in the pipeline.

Figure 1 - Indicative project timeline (to 1st production of product) - Shard Capital estimates



Source: Shard Capital

Operational update

PlatCro PGMS and PlatCro Chrome

- ▶ **Chrome.** Jubilee completed the acquisition of its PlatCro chrome project in January 2019 and reports positive earnings ahead of projections for January and February of £0.90m. (ZAR16.06m).
- ▶ **PGMs.** At the PlatCro PGM project, deliveries of PGM-containing material have been accelerated to Northam's Eland platinum concentrator, scheduled to commence PGM recovery and refining during May 2019. The plan remains the same with JLP targeting the processing of 60ktpm of PGM-containing material equating to a production potential of 30koz pa on par with JLP's existing Heric PGM operation.

DCM Fine Chrome

- ▶ **Fine Chrome up and running.** JLP reports that the fine chrome plant at DCM was brought into production during January 2019 and ramped up to reach commercial production levels during March 2019. The plant can process up to 25ktpm of chrome containing tailings material. Demonstrating the sustained commercial operation of the fine chrome plant will be a key milestone for Jubilee.
- ▶ **Roll-out potential.** Typically, conventional chrome processing techniques do not recover fine chrome particles of sub 40µm. Recovery losses increase substantially at a sub 60µm particle size. Success at DCM fine chrome will mean that JLP can roll out the technique to its other operations and furthermore, it opens up enormous potential for the recovery of fine chrome from the millions of tonnes of historical tailings that are produced by primary platinum producers mining the UG2 reef and primary chrome producers.

Heric

- ▶ **Minor delays.** JLP reports that the Heric operation continued to deliver strong earnings despite a delayed start up following the December break and the challenges posed by increased power outages from the South African power grid. We understand that there was a delay of around 8 days starting up the operation after the traditionally long Christmas break in South Africa.
- ▶ **But earnings still robust.** Despite this, Heric delivered operational earnings of GBP1.1m for January and February 2019. Whilst this puts earnings behind the Q4 2018 run rate (£2.2m for the quarter) by about £0.36m, the company expects production to return to previous levels from March 2019 and so the effect on the total quarter is likely to be more muted. We will update our model when the full quarterly production numbers are released but we expect the impact to be marginal. We view the delay to 2019 operations as a minor blip given that Heric has been going from strength to strength over the past several quarters. Production for Q3 and Q4 2018 exceeded 6koz PGMs per quarter and costs are running consistently below \$400/oz. JLP expects to grow the earnings potential further as it targets to increase delivery of feed material to the operation.

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