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- AfriTin eyes the big league
- Electra Mining Africa – bringing industry together
- Tin rocket back on Earth, but for how long?
- De Beers – a pace-setter for gender equity





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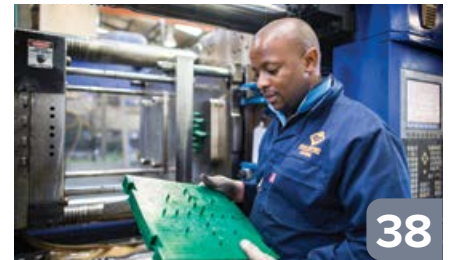
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ON THE COVER

Amid the growing rental culture, SANY Rental, a division of SANY Southern Africa, continues to expand its rental fleet to provide a diverse selection of yellow metal equipment solutions. See story on page 8.



Light at the end of the tunnel – not so fast!

Statistics South Africa recently pegged South Africa's population at over 60-million people, citing a positive population growth year-on-year. Now, given that a vast number of the population have access to electricity (the World Bank reported 84.39% in 2020), this is a whole lot of people who have all experienced severe loadshedding – with Stage 6 trending for all the wrong reasons.

Fear of Stage 8 and total blackout was, and continues to be, a real concern for most people. According to media reports, Stage 6 load shedding cost the country over R4bn per day.

I vividly remember thinking, the very first time we experienced loadshedding in 2008, that the issue would soon be solved – 14 years later and we are in a worse situation.

But, if we think that we are the only ones on the dark side – think again.

European countries that rely heavily on Russia for their energy source are bearing the brunt of the Russia-Ukraine war.

Russia is the world's largest oil exporter to global markets, and its natural gas fuels the European economy. Like South Africa, energy bills in Europe are soaring – with countries, including UK, Italy, Spain, France, Germany, the Netherlands and Norway all expecting to face a cold, dark and very expensive winter.

Having already experienced one of our worst winters loadshedding-wise, South African's were delighted when President Cyril Ramaphosa came to the table with an energy plan.

The plan, he said, aims to improve the performance of Eskom's existing fleet of power stations; accelerate the procurement of new generation capacity; harness private investment in generation capacity; enable businesses and households to invest in rooftop solar; and position the electricity sector for future sustainability.

Eskom 2.0

Minister of Mineral Resources and Energy Gwede Mantashe has put forth the suggestion of having an Eskom 2.0, a second state-owned power utility to supply bulk load for the country's energy needs.

The good news is that coupled with the renewable energy procurement programme Bid Window 4, which has seen over 2 000 MW of solar and wind power generation connected to the grid and a further 2 600 MW of capacity set for procurement through Bid Window 5, the raising of the licensing threshold to 100 MW has seen numerous heavy energy consumers, especially mining houses, moving with speed to establish renewable energy plants.

According to Ramaphosa, Eskom has made land available next to its power stations in Mpumalanga for renewable energy projects, which will unlock 1 800 MW of new capacity.

Apart from importing power from the Southern African Power Pool, the power utility will construct its first solar and battery storage projects at Komati, Majuba, Lethabo and several other power stations, which will result in over 500 MW being added to the system.

Lastly, government is looking to incentivise greater uptake of rooftop solar for all commercial and residential installations on its network – I'm sure fed-up citizens can't wait to take up this opportunity and be Eskom-free.

While it is heartening to note that plans for greater power stability are in play for the not-too-distant future, in the immediate time-frame, we ready ourselves for the next bout of loadshedding.

In this edition

This issue highlights two important events – Women's Month and Electra Mining – both of which have been editorially well supported with numerous companies keen to showcase their efforts in meeting gender equity targets. It was interesting to learn that De Beers' annual pay audits ensure that the contentious issue of pay parity is effectively dealt with. Here's hoping more companies will follow suit and implement pay audits to guarantee equity in pay.

Meanwhile, as the Electra Mining Africa 2022 event draws closer, companies are eager for in-person meetings with clients and to be showcasing their latest product launches. The event takes place from 5 - 9 September 2022 at the Johannesburg Expo Centre. ■



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BELL

Jubilee Metals provides update on Zambia project

AIM-listed Jubilee Metals has announced an update at its Zambian operations where the integration of the Sable Copper and Cobalt refinery with the newly constructed copper concentrator, Project Roan, continues as part of Jubilee's Southern Refining Strategy.

Project highlights include:

❑ Cobalt refining circuit at the Sable Refinery entered the commissioning phase during June 2022, with first trial cobalt product produced per the expected commissioning and ramp up schedule:

- Commercial production is targeted to commence during August 2022.
- The cobalt refining circuit at Sable is able to produce up to 1200 tonnes of cobalt a year depending on the feed grade.

❑ Commissioning and ramp up is progressing at the Project Roan concentrator reaching 65% of designed capacity with first filtered copper concentrate produced for refining at Sable as part of commissioning and ramp-up activities:

- Ramp-up of the concentrator reached design capacities at the end of July 2022.
- At capacity, targets the processing of 830 tonnes of copper in concentrate per month for refining at Sable.
- Part of overall Southern Refining Strategy to reach 12 000 tonnes per annum of copper production capacity.
- Significant employment opportunities created, and local suppliers prioritised, to create a locally sustainable support infrastructure. ■



Jubilee Metals is on track with Zambian project commissioning.

TCTA partners with Gold One to solve Eastern Basin crisis

The Trans-Caledon Tunnel Authority (TCTA) and Newshelf (NS 1186), a subsidiary of Gold One Group, recently signed a Memorandum of Agreement that will improve the availability and reliability of the Eastern Basin Acid Mine Drainage (AMD) plant. The agreement stipulates that

the Gold One subsidiary will procure and deliver the critical equipment (submersible motors and spare parts) for exclusive use at the AMD plant by TCTA.

TCTA will be responsible for installing and maintaining the equipment. As part of the agreement, the equipment is expected to be delivered to the AMD plant in October 2022 and be operational by November 2022. The executive manager for project management and implementa-

tion, Johannes Mavuso, said the Eastern Basin AMD plant had not been able to treat acid mine water since February 2022 owing to the failure of pump motors. "This has affected TCTA's ability to abstract water from the Eastern Basin, resulting in the increase in the AMD level within this basin," he said. "As reported previously, the danger of a decant is predicted to be only around December 2022 if the situation were to remain the same." ■

Kropz CEO Mark Summers to step down at year-end

AIM-Listed emerging African phosphate producer Kropz CEO Mark Summers has decided to step down as CEO at the end of 2022. According to the company, the board has commenced a process to appoint a new CEO. Mark Summers, commented: "We have achieved a great deal since I joined in 2015. With Elandsfontein now moving into the operational phase, and the way forward at Hinda well-defined, I have decided that the time is right to hand over the reins at Kropz and seek new opportunities." ■



The Eastern Basin AMD plant has not been able to treat acid mine water since February 2022 owing to failure of pump motors.

Caledonia Mining to acquire Bilboes gold project in Zimbabwe

Gold miner Caledonia Mining will purchase Bilboes Gold, the parent company of Zimbabwe subsidiary, Bilboes Holdings for 5 123 044 Caledonia shares, representing around 28.5 per cent of Caledonia's equity. Bilboes Gold owns the Bilboes gold project in Zimbabwe, a large high-grade gold deposit that has had a limited amount of open pit mining.

The project has proven and probable mineral reserves of 1.96 million ounces of gold at a grade of 2.29 g/t; measured and indicated mineral resources of 2.56 million ounces of gold at a grade of 2.26 g/t; and inferred mineral resources of 577 000 ounces of gold at a grade of 1.89 g/t.

The project has produced about 288 000 ounces of gold since 1989. A feasibility study prepared by engineering firm DRA indicates the potential for an open-pit gold mine producing an average of 168 000 ounces per year over a 10-year life of mine. Commenting on the announcement, Mark Learmonth, CEO,



Caledonia is aiming to become a multi-asset, mid-tier gold producer.

said: "This is a transformational asset for Caledonia as we embark on the next step in our journey to become a multi-asset, mid-tier gold producer. Once in full production, Caledonia's management believes that Bilboes could produce

three times our current 64 per cent attributable share of gold production from Blanket mine, resulting in production from the enlarged Caledonia group being potentially four times its current size." ■

Caracal Gold appoints Riaan Lombard as COO

East African gold producer Caracal Gold has appointed Riaan Lombard as chief operating officer (COO), with immediate effect. Lombard is a qualified mining engineer and native of Namibia, with 25 years of experience across a multitude of senior management and technical roles and a diverse range of commodity projects in West Africa, East Africa and South America. He has held the role of general manager of Caracal's fully owned subsidiary Kilimapesa Gold, which operates the company's flagship Kenyan mine, since February 2022. He has also been instrumental in Caracal's recent acquisition of the Nyakafuru Project in Tanzania, which is located in the world-class Lake Victoria Gold Fields. ■



Caracal Gold is an East African gold producer.

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Robex Resources and Vivo Energy complete solar plant at Nampala

TSX-listed Robex Resources and LSE-listed Vivo Energy have completed construction of a hybrid solar power plant at the Nampala gold mine in Mali. The two groups

have also signed an exclusivity agreement for Vivo Energy to provide a further hybrid solar and thermal power solution to the Kiniero gold mine in Guinea, owned by Sycamore Mining and currently in the process of merging with Robex. Vivo Energy now supplies carbon free power to the Nampala mine through its equity funded solar hybrid project. The project reduces the carbon footprint of the mine by around 60 000 tonnes over ten years, while making a material reduction in the mine's cost of energy. Vivo Energy Mali has supplied fuels and lubricants to the Nampala mine since it reached commercial production in 2017. Robex Resources is a key customer of Vivo Energy in Mali.

Benjamin Cohen, CEO of Robex Resources said: "We continue to work on closing the Sycamore Mining merger and, following the success of the Nampala project, have signed an exclusivity agreement with Vivo Energy to develop a hybrid solar energy solution that will provide in excess of 40% of the power requirements for the Kiniero mine in Guinea, displacing 27 000 tonnes of CO₂ per year." ■



Vivo Energy supplies carbon free power to the Nampala mine in Mali.

Record fatality reduction in the first half of 2022

According to the Minerals Council South Africa, the country achieved a record six months without a mining fatality caused by

a fall-of-ground (FOG) in gold and platinum mines.

The entire industry was FOG fatality-

free in the second quarter of the year. This is significant because gold and platinum mines have not had a FOG-fatality free first six months of the year in the history of South African mining, says Minerals Council's head of safety Dr Sizwe Phakathi.

There were 11 FOG fatalities by the end of June last year. In the past three years, including the industry's record safety performance in 2019, FOG fatalities accounted for at least 20 deaths in each of those three years. The Minerals Council Board held a special meeting in December 2021 to urgently implement eight interventions to halt two years of regression in safety performances in the mining industry and then to reverse the trend. In 2020 and 2021, the industry reported 60 and 74 fatalities respectively, compared to the all-time low of 51 in 2019.

"We are undertaking a comprehensive review to understand what went well and what we can learn from the past six months. The review will be done by the Minerals Council in collaboration with other stakeholders," said Dr Phakathi. ■



The industry was FOG fatality-free in the second quarter of the year.

Gold demand defies Q2 headwinds

The World Gold Council's latest Gold Demand Trends report revealed that gold demand in the second quarter was down 8% year-on-year to 948 t. However, thanks to strong ETF inflows in Q1, gold demand for the first half of 2022 is up 12% compared to H1 2021 at 2 189 t.

After an initial rally in April on geopolitical risks and building inflationary pressure, the gold price dropped in the second quarter of 2022 as investors shifted their focus to rapidly rising interest rates and a strikingly strong US dollar, the council said.

The 6% decline in the gold price over the quarter impacted gold ETFs, which saw outflows of 39t in Q2. Net H1 inflows totalled 234 t, compared to 127 t of outflows in H1 2021.

Gold bar and coin demand remained stable year-on-year at 245 t in Q2. Growth in demand came notably from India, the Middle East, and Turkey which helped to balance weakness in Chinese demand.

In the jewellery sector, Q2 gold demand increased 4% year-on-year to 453 t, helped by a recovery in Indian demand, up 49% compared with Q2 2021.

Central banks were net buyers in Q2, growing global official reserves by 180 t.

Turning to the technology sector, demand for gold was down 2% from Q2 2021 at 78 t, and as a result, H1 2022 demand was marginally lower year-on-year at 159 t. The electronics sector has continued to experience supply chain disruption, and is now facing diminished consumer appetite for electronics as the cost-of-living crisis starts to bite. ■



Cummins appoints first female CEO

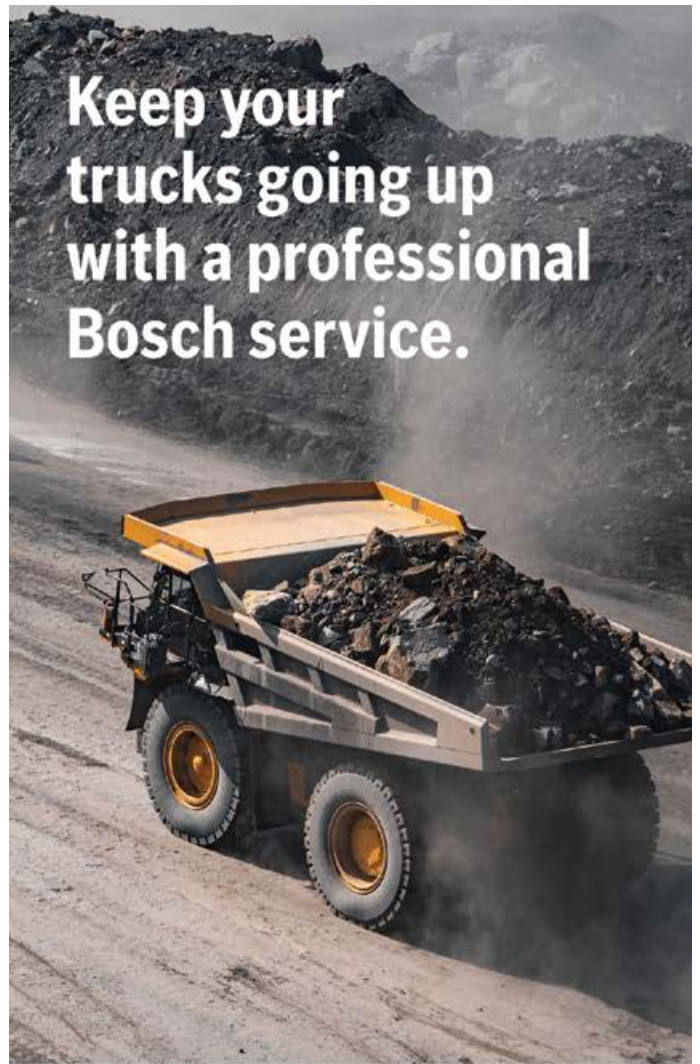
Multinational company Cummins has appointed Jennifer Rumsey as CEO, the seventh CEO and first woman to lead the company since it was founded in 1919.

"Our values speak to diversity, equity, and inclusion. It really includes our differences in decision-making as a competitive advantage. If I think about then and now, the principle rings true today," says Avril Campher, transformation leader for South Africa.



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SANY Rental ticks the right boxes for mining

While buying machinery makes sense for larger companies that have the necessary financial muscle, many small to medium-sized mining contractors are turning to rental. Amid this growing rental culture, SANY Rental, a division of SANY Southern Africa, continues to expand its rental fleet to provide the most diverse selection of yellow metal equipment solutions and accommodate a wide range of project and operational needs.

If we have learnt anything over the past two years, it's that uncertainty is certain. Consequently, asset rental services – which assist plant-driven businesses to optimise their cashflow and to mitigate against undue risk – are growing in prominence. In fact, a new research report by Global Market Insights notes that the southern African construction and mining equipment rental market is projected to grow at a compound annual growth rate of 3% to exceed a USD3,5-billion market value by 2024.

To tap into the thriving rental market, SANY Southern Africa established its own OEM-powered rental business in 2021. SANY Rental is aimed at helping customers deal with increased uncertainty, explains Samuel Zhang, GM of SANY Southern Africa. The rental business is mainly targeted at opencast mining, offering a comprehensive range of yellow metal equipment solutions that speak to the exact needs of mining contractors.

Across applications

The SANY Rental fleet is currently deployed across commodities – from coal to chrome, and anything in between. Thanks to their great stability, productivity and a strong backup regime, SANY rental machines enable customers hassle-free operation.

“We have received positive feedback thus far, with operators particularly praising the power, efficiency, comfort, smooth and precise control of movement of our SANY machines. Since the establishment of the rental division late last year, the fleet has already clocked more than 10 000 hours, offering non-stop production to customers,” says Zhang.

On the loading front, the company offers three excavator models – the 36-t SY365H, the

50-t Y500H and the 76-t SY750H. This is complemented by the 5-t SYL956H wheel loader, which is ideally suited for stockpiling and loading of customer trucks on site.

The hauling fleet is anchored by the tried-and-tested SRT55D (60 t) and SRT95D (100 t) rigid dump trucks. To offer a perfect loading tool for these large-sized haulers, SANY will add the new 100-t SY980H excavator to its rental fleet this year. A range of compaction rollers and motor graders completes the line-up, enabling mining contractors to keep their haul roads in top condition.

New offering

To help mining contractors boost their productivity at a lower cost of operation, SANY Rental has added the new SKT105S wide-body dump truck to its rental line-up. The 70-t truck is a radical upgrade of the previous 60-t SKT90S, which was first introduced to the local market in 2018.

The wide-body dump truck's key value proposition is the ability to move more tonnage at a fraction of the cost of running a comparable articulated dump truck (ADT) or rigid dump truck (RDT).

“To provide context, the SKT105S comes at less capital cost and rental rate than a 40-t ADT. However, the SKT105S wide-body dump truck has a 70-t loading capacity, almost double that of the 40-t ADT, yet its fuel consumption is much lower than that of the ADT. This is a compelling value proposition for mines seeking to increase their production and lower operating costs,” explains Thabo Lerumo, operations manager of SANY Rental at SANY Southern Africa.

However, Lerumo is quick to point out that the wide-body concept is not necessarily suited for all

Below: All SANY machines in the rental fleet are brand new, so customers can have peace of mind knowing that they are guaranteed high machine uptime and efficient production.

Right: SANY Rental has added the new SKT105S wide-body dump truck to its rental line-up.



contractors

project conditions. Given that it adopts the same design approach as the traditional RDT, it thrives on well-maintained roads.

From a running cost point of view, the SKT105S is a better cost-effective solution than the larger, conventional dump trucks. For example, the truck uses the same type of tyres (16.00R25) as construction-type tipper trucks, which cost far less than those of a comparable ADT or RDT. The tyres are also readily available from various local retailers.

Benefits of rental

A major benefit of going the rental route is that contract miners can minimise their capital outlay and reduce the risk of an uncertain market. Traditionally, mining contractors have generally preferred outright purchase and ownership of their equipment – this may be part of a company’s culture or simply a financial preference. Additionally, some contract miners opt to own their equipment because it provides physical assets and a sense of control over those assets.

However, the situation has changed in recent years, leading to a growing rental culture driven by companies seeking smart ways of executing their mining contracts. Rental by its nature, adds Zhang, frees up capital – rental expenses are immediately deductible and there are no related costs for warranties, insurance, transport or storage.

“In the quest for lower business risk, there is a complete mindset shift in the market, with companies fast realising that renting does not involve a long-term financial commitment. One can simply return the equipment when their project is done and the rental instalments end immediately,” says Zhang. “This eliminates the risk of big-ticket machinery standing idle in between projects, depreciating in value and slowly becoming obsolete. Renting also improves uptime, because replacements are typically available immediately should a rental machine suffer any breakdown on the job.”

SANY Rental services also allow small to



A 76 t SY750H excavator loading a 100 t SRT95D rigid dump truck in the pit.

medium-sized contractors to gain access to the latest technologies. Considering the rate at which mining equipment technology continues to evolve, having access to modern technology allows mining contractors to manage their projects more efficiently and improve profitability.

Given that SANY’s rental fleet is serviced and maintained by the OEM, contract miners do not have the ongoing responsibility of repairs and maintenance, keeping parts and employing a dedicated service team on site. Full-service rental from SANY, says Zhang, is of great benefit to mining contractors who do not have their own mechanics and workshops.

“Our OEM service teams are professional and know the product very well. Customers can, therefore, focus on their core business, which is to mine, and leave the servicing and maintaining of equipment to us,” says Zhang.

Efficient production is the goal for every company. All SANY rental machines are relatively new, maximising efficiency, productivity and equipment availability. “All our machines in the rental fleet are brand new, so customers can have peace of mind knowing that they are guaranteed high machine uptime and efficient production. Operators are also at their productive best as they enjoy working with new, comfortable equipment models,” says Zhang.

Availability and support

Another major advantage of opting for SANY Rental is that the company always keeps enough stock. This is critical, especially given the current long lead times that customers have to contend with due to supply chain disruptions.

The high inventory levels are complemented by recent investments in support structures. In 2020, SANY Southern Africa commissioned a 40 000 m² machine storage yard in Boksburg, South Africa. This is complemented by a huge stockholding of about R90-million’s worth of parts, which is set to be increased to R270-million next year. ■

“Our OEM service teams are professional and know the product very well. Customers can, therefore, focus on their core business, which is to mine, and leave the servicing and maintaining of equipment to us,” says Zhang.



Tin rocket back on Earth, but for how long?

By James Willoughby: market analyst for the International Tin Association



James Willoughby International Tin Association.

Financial commentary is full of analogies, one of the favourites being a roller-coaster. Over the past two years, however, the tin market has been more akin to a space flight.

The tin market took off like a rocket in 2020. After an initial dip at the start of the pandemic, prices quickly rebounded and didn't look back for quite some time. The white metal ended 2021 up 88% as pandemic-related trends saw demand for consumer electronics jump massively. At nearly \$40,000/tonne – more than double the average over the past decade – many thought this was the apogee of the tin spaceflight.

With the world seemingly returning to normal, demand growth was forecast to slow slightly in 2022 before returning to baseline rates in 2023. A gentle return to Earth for the tin rocket was scheduled.

However, things did not quite go to plan. Changing regulations in Indonesia – the world's largest exporter of tin – at the turn of the year saw the market continue its trajectory. Prices on the London Metals Exchange hit \$50,050/tonne in early March, a new record.

However, like most rockets, the tin market eventually ran out of fuel.

In the middle of February, Russia invaded Ukraine. In response, the EU banned imports of most commodities from March. Most Russian tin concentrate is sold into Asia, and any domestically produced metal is consumed or sold to former Soviet nations. Despite the lack of a direct impact on tin, the indirect impacts have been significant.

Inflation, beginning in Europe but spreading to the US and parts of Asia, has muted demand for the metal with consumers preferring food on the table rather than the latest gadgets. Poor macroeconomic data has also moved speculators to withdraw from markets. Due to the small size of the tin market, this caused dramatic swings in prices: speculators took profits at the early March record levels; in the two days after, the LME benchmark lost over 14% of its value.

The downwards move saw tin begin to re-enter Earth's atmosphere.

With China acting as a stabiliser, the surplus in the rest of the world was manageable for a while. China typically produces enough refined tin to meet its domestic demand but struggled to do so during the first half of the year. Due to high concentrate prices and low treatment charges, smelters refused to increase their output, fearing further falls in the price. Consumers had to look offshore for metal, sucking in any surplus. However, as major cities in the country locked down to prevent the spread of Covid once again, tin demand fell sharply.

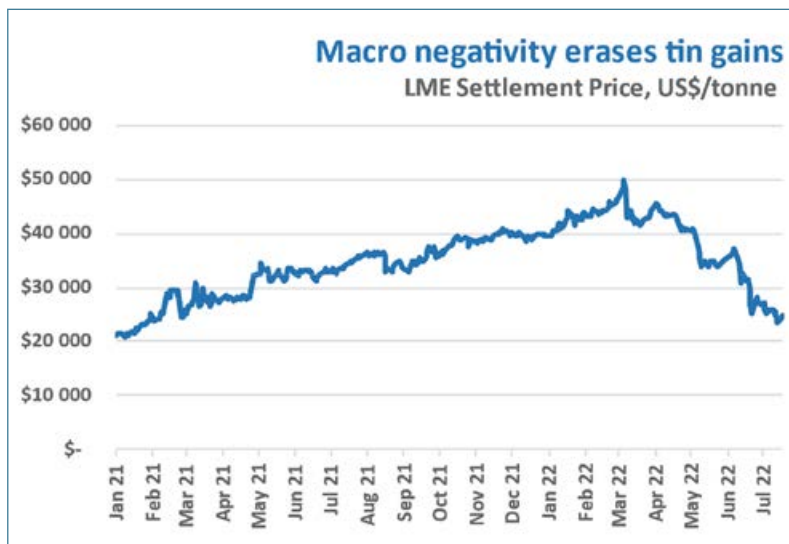
With no outlet for surplus material, global visible stockpiles of tin have steadily risen over recent months. Warehouse stocks measured over 7,600 tonnes in early July, more than double levels seen at the start of the year. Tin prices are now trading around \$25,000/tonne mark, half the 2022 high and down nearly 37% year-to-date.

Tin's re-entry has been rapid. The question now is whether tin will be able to slow its descent and – like a SpaceX rocket – land safely.

The summer months are typically quieter for tin demand. Downstream companies have reportedly taken the opportunity to reassess and restock, taking advantage of the lower prices. However, tin is always stronger at the end of the year: the usual



Tin ingots stock up as global demand is constrained by macroeconomics.





clamour for the latest devices during the holiday period fuels the market.

China could also provide some fuel for tin's relaunch. Earlier in the year, China announced a GDP growth target of around 5.5% in 2022. However, it has been undershooting that so far due to Covid control measures. In the second half of the year, the country will begin to implement a massive proposed economic stimulus to get back on track.

The new China package is focused on electronics infrastructure including cloud computing, 5G networks and data centres, benefitting tin in solders particularly. Other stimulus measures target the automotive industry and potentially the rapidly growing solar industry. We expect the combined effect to revive tin demand strongly.

On top of this, nearly 90% of smelters in China performed their annual maintenance over the June-July period, cutting some 13,500 tonnes of metal out of circulation. While many had enough stock to cover their contractual demand, there was still some impact on the spot market, helping to slow the price downtrend. Indonesian smelters have slowed production in response to the lower prices, while African ASM producers have turned their attention to other commodities.

Combined, these factors should help tin land safely. It will need to; it could be scheduled for another launch in the near future.

The move towards an ever more technological and automated society will require more electronics. Tin can be used in all aspects, from the power generation through to the networks on which the devices will run, all the way to the devices themselves. Because of this, annual tin demand growth rates are likely to accelerate from roughly 2% to 3-4%.

However, new supply is not keeping pace. Few major producers are looking to increase their capacity; many are struggling to maintain output. Until recently there has been little investment in new supply – either to replace existing mines, or to meet future demand. Investment in new projects, including recycling, is increasing but needs to be vastly accelerated to avoid a significant tin deficit by 2030.

Recent events have launched tin into a dramatic boom and bust cycle with record prices followed by an accelerated downturn. There are prospects for moderate recovery by the end of the year as the market rebalances, but also real macroeconomic risks ahead. However, tin's essential role in modern life, especially in electronics solders, will ensure long-term growth in future technology markets. ■

Chinese tin smelters underwent annual maintenance as the tin price fell rapidly over the second quarter.

Drilling underway at a tin project.





Aerial view of the Uis tin mine, Namibia.

AfriTin eyes the big league

Tech-metals mining company AfriTin Mining's majority owned Uis tin mine in Namibia, which is backed by Standard Bank Namibia as financing partner, recently signed a proposed loan term sheet from the Development Bank of Namibia for an estimated £5,5-million to fund the Uis Phase 1 Stage II Continuous Improvement Project. By Nelendhre Moodley.

The Uis tin mine is a large open pit mine located in the western part of Namibia in the Erongo region which hosts polymetallic commodity streams of tin, tantalum and lithium – just the right clean energy metals needed as the world rides the wave of the fourth Industrial Revolution.

“The Uis tin project has inherent within it all the elements to become a world class asset, and backing from our financing partnerships with Standard Bank Namibia and the Development Bank of Namibia, paves our growth in the green energy market,” AfriTin’s CEO Anthony Viljoen tells *Modern Mining*.

Armed with a strategy of playing in the new tech and green energy metals spaces, AfriTin, a spin-off from vanadium producer Bushveld Minerals, identified South Africa’s former parastatal Iscor’s old tin mine in Namibia, which operated between 1958 and 1991, as its launchpad into regional exploration and development.

“After scouring the global arena for a suitable



AfriTin’s CEO Anthony Viljoen.

asset to act as a springboard into the energy market, we came across Iscor’s old tin mine which, in its time, was the largest hard rock tin mine in the world. Initially, we planned to use it as a catalyst for regional exploration but after rolling out an intense drilling programme, we discovered a spectacular asset hosting a number of different pits and containing key minerals needed to drive the green economy,” says Viljoen.

As part of its Phase 1 project, the miner

The Uis orebody is a giant polymetallic deposit of global significance as it contains minerals key to the 21st century supply chain.

established a pilot processing plant which commenced partial operations in August 2019 producing tin concentrate, which it delivered to its offtake partner, the Thailand Smelting and Refining Company (Thaisarco) in February 2020.

According to Viljoen, the company has been progressing apace with its Phase 1 Expansion project, which will increase production of tin concentrate by 67% from current nameplate levels of 720 tonnes per year. Construction and commissioning of the expanded plant is on track to be completed this year.

The miner currently generates \$800 000 per month in operating cash flow from its Uis mine and is fully financed to complete the commissioning of its Phase 1 expansion and test-work programme.

While the Uis tin mine's resource is currently pegged at 71 mt in the measured and indicated category, recent efforts in firming up the resource indicate a potential to expand it to 200 mt.

With the financial backing of its partners, AfriTin is well-positioned to grow its 1 mtpa operation to ten times the current size over the next few years.

"We have pretty lofty ambitions and believe the Uis tin mine, with its host of key energy metals, will be the catalyst catapulting the company from being a junior miner to mid-tier status in the next four years," says Viljoen.

Lithium and tantalum upside

According to Viljoen, the Uis orebody, a giant polymetallic deposit, is of global significance as it contains minerals key to the 21st century supply chain.



AfriTin established a pilot processing plant in August 2019.

Lithium production remains a hot topic, given the limited number of new lithium projects coming on-stream. AIM-listed AfriTin sits in an enviable position as it is one of few new lithium producers bringing a project -into production.

Lithium production remains a hot topic given the limited number of new lithium projects coming on-stream, and AIM-listed AfriTin is in an enviable position as it is one of few new lithium producers bringing a project into production.

"While the Uis tin project offers a deposit that is significantly larger than we initially anticipated, the real bonanza for AfriTin is the inherent lithium and tantalum that the orebody produces. Also, the fact that we are in production for polymetallic minerals and able to produce lithium, gives us a huge

Mining taking place at the Uis tin mine.





Tin ore being stockpiled.

Uis tin mine will be the catalyst catapulting the company from a junior miner to mid-tier status in the next four years.

competitive advantage not only in the tin space but also in the lithium space,” says Viljoen.

AfriTin is upgrading the confidence level of its lithium and tantalum mineral stream with a confirmatory drilling programme underway to prove up the resource and bring it into the measured and indicated category.

“Once complete, the project will feed into the Phase 2 feasibility study for the larger scale plant, which will be ten times the scale of our current operations, taking it from 1 mtpa to 10 mtpa of ROM operation. This will catapult us from being a recreated old mining project to being one of the biggest producers of tin in the world, producing lithium and tantalum as high value by-products.”

Processing polymetallic minerals

Discussing the processing of polymetallic minerals, Viljoen explains that processing lithium is not



as straightforward as processing tin and that, as a chemically delicate process, it requires getting the right specification of concentrate for specific end-uses.

The miner, therefore, is looking into dispatching product to a variety of lithium converters to determine which clientele align to its material specification.

“We are building a pilot facility to ensure that the lithium concentrate produced delivers an overall level of consistency.”

Explaining the intricacies of mineral separation, Viljoen says the company is fortunate that tin, lithium and tantalum are amenable to the gravity separation process.

“Essentially, all the ore goes into a single crusher to be crushed down to a 6 mm fraction after which it is put through a dense medium separation (DMS) circuit where the material is separated into heavier and lighter fractions. Tin and tantalum, being the heavier fractions, are put through a series of spirals to produce a concentrate. A magnetic separator is used to separate the tantalum from the tin. In the end, we produce a small volume of high value tantalum concentrate and a larger portion of tin concentrate. The lighter material, which we are currently sending to the waste dumps, contains lithium. In time the dumps will be reprocessed to extract the lithium.”

Plans are afoot to add a second DMS module to the processing plant to target the lighter material producing lithium concentrate.

“We are busy tweaking the circuits to determine how to single out and extract the different minerals. The main focus now is on overcoming the variability of the orebody which is not a complex problem but takes time to fine-tune. Once we are sufficiently confident, we will implement it into the final circuit.”

In addition to the lithium revenues that AfriTin will soon be earning, the polymetallic orebody also contains tantalum – a rare high demand element and key component used in the manufacture of electronic capacitors. Tantalum will add to the miner’s already lucrative revenue stream.

Aside from its tin offtake agreement with Thaisarco, the miner has inked an off-take agreement with tin, tantalum and tungsten trader AfriMet Resources for its tantalum concentrate. Although it is yet to ink an offtake agreement for its lithium

Uses of tin, lithium and tantalum

- ❑ While tin is used largely to make cans; recycling, as part of decarbonisation efforts to tackle climate change, is reducing demand.
- ❑ Tin is an important component for soldering electronics including semiconductors, solar panels and batteries, for which demand is expected to grow in the coming years.
- ❑ The rollout of 5G telecom networks is increasing demand for tin soldering in new telecom equipment.
- ❑ Electronics systems in electric vehicles (EVs) are another growing source of demand. Automotive manufacturers use tin in coatings, bearings and brake pads as well as in batteries.
- ❑ The most important use of lithium is in rechargeable batteries for mobile phones, laptops, digital cameras and electric vehicles.
- ❑ Lithium is also used in some non-rechargeable batteries for things like heart pacemakers, toys and clocks.
- ❑ More than half of tantalum’s use is for electrolytic capacitors and vacuum furnace parts. The element is also used to make chemical process equipment, nuclear reactors, aircraft and missile parts.



concentrate, AfriTin is already in talks with key industry players in the lithium inverter space.

AfriTin’s growth aspirations

As part of its five-year growth strategy, the company aims to enlarge its footprint in Namibia by expanding existing operations and adding mining locations both in-country and across Africa. In addition, revenue streams for multiple technology metals concentrates will be developed, expanding the current tin production to include lithium and tungsten.

Aside from investigating options to unlock opportunity from its B1/C1 Licence Area, which contains a primary lithium mineral accompanied by tin and tantalum mineralisation, AfriTin has an aggressive



Above and left: Uis tin mine processing plant.

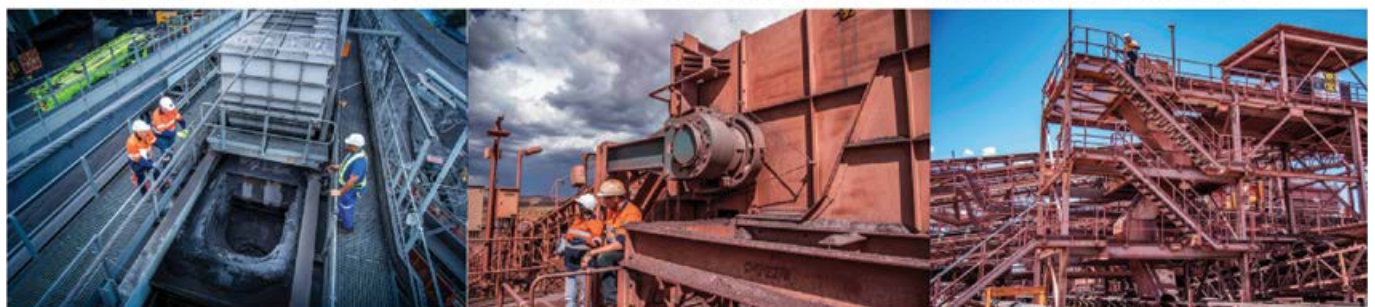
exploration programme in place at its Brandberg West Exploration Licence, an historic open pit tin and tungsten mine, which was operated by gold miner Gold Fields from 1946 into the 1980s.

The Brandberg West operation, located 107 km from the Uis Mine, is a polymetallic deposit with primary tin and tungsten mineralisation and secondary copper mineralisation.

“We have all the makings of becoming a significant mid-tier mining company capable of identifying and developing assets of global significance to the world mining market,” concludes Viljoen. ■

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Minerals Council unpacks industry progress

Following the Mining Charter’s call for gender equity in the sector and the subsequent transitional targets set out in 2018, *Modern Mining* caught up with Nolitha Fakude, the Minerals Council South Africa’s first female president, to chat about the industry’s progress in meeting the outlined targets.

How is the mining industry progressing towards achieving the gender equity targets as set out by the Mining Charter?

The Mining Charter 2018 set five-year transitional targets (2019-2023) for Employment Equity (EE) and introduced targets specifically for women at each occupational level. The targets for women range from 20% at board and executive management to 30% at junior management level.

Providing a universal snapshot of the industry’s performance in meeting the targets set out in the Mining Charter has proved impossible because there is no standardised reporting template provided by the regulator to measure compliance

with the Charter by the industry.

Since 1996, when women were first legally allowed to work underground in mining operations in South Africa, the industry now employs 64 500



Nolitha Fakude, the Minerals Council South Africa’s first female president.

women out of a total workforce of nearly 460 000, which translates to just 14%. The global number is between 15% and 20%, indicating we have some way to go. The Minerals Council and its members have set targets to double, at least, the percentage of women in mining by 2025, reaching 30% to 40%

women representation across the industry. This is a stretch target set in 2020. In the next decade, we are targeting 50% women representation in management. For these targets to be met, we must make the industry attractive for women wanting to build thriving careers. Research has shown diverse companies perform better financially, have greater brand awareness and goodwill; it’s about improvements in tangible and intangible benefits. In 2021, Harvard Business School noted that, on average, companies that increased women representation by 10% boosted their revenues by 10%.

A high-level study on the EE progress for a portion of members of the Minerals Council as well as the results from the Commission of Employment Equity report launched in June 2022, shows that companies have made little progress in the

The Minerals Council believes strongly that data collection and the tracking of trends is crucial to addressing the challenges faced by women and to further transformation in the industry.

The targets for women range from 20% at board and executive management level to 30% at junior management level.



advancement of women across occupational levels. Indian and White women are over-represented against their National Economic Active Population (EAP) statistics, while African and Coloured women are under-represented. Strategic initiatives are underway to improve the status; to attract, train and retain more African and Coloured women in the mining sector.

What are the challenges as related to meeting the gender equity targets?

The high turnover levels of women in the mining sector continue to pose a challenge to meeting gender equity targets. This is especially the case in core mining roles, not just in senior roles but also in mid-career roles, where we would ordinarily build our talent pools. Women still face myriad challenges that contribute to the high departure rates at senior levels of mining companies. At an operations level, challenges relating to physical safety, harassment, unequal access to opportunities and traditional gender-based views on women's participation in mining contribute to women leaving mining. The recent report by Rio Tinto of the difficulties women face at its global operations is sobering and not unique to Rio Tinto. These challenges, if not addressed by all leaders, will make it difficult for mining companies to attain gender equity targets.

What measures are in place to address the gender pay?

Globally, one of the challenges faced by women in all sectors, including mining, is the gender pay gap. This issue has been identified as a contentious issue in research conducted by the Minerals Council and has been reiterated in research outcomes globally. The Minerals Council believes strongly that data collection and the tracking of trends is crucial to addressing the challenges faced by women and to further transformation in the industry. To this end, the Women in Mining Gender Diversity and Inclusion dashboard was developed to track Minerals Council member company data based on KPIs that have been proven to influence transformation. One of the KPI metrics looks at the differences in average remuneration between men and women amongst the member companies. The Minerals Council has launched a dashboard for member companies and organisations to begin tracking the industry's progress in closing the gender pay gap and collecting crucial data that will scientifically inform our conversation, policies and actions going forward.

How is industry working to attract females to the mining sector?

The Minerals Council supports and works closely with external stakeholders to ensure a steady number of women enter the mining sector. Universities have made great strides in attracting females and



The SA mining industry employs 64 500 women out of a total workforce of 460 000.



High turnover levels of women in the mining sector continue to pose a challenge to meeting gender equity targets.



Women still face myriad challenges that contribute to high departure rates.



Great strides are being made in creating early talent pipelines for the industry.

The Minerals Council's board has identified Women in Mining as a key priority pillar in its strategy.

Mechanisation and technology create the opportunity to re-engineer remote working models that provide women more flexibility to fully engage in their careers.



So, great strides are being made in creating early talent pipelines for the industry.

What measures are in place to grow the pipeline of new female leaders?

The mining industry continues to offer bursaries and scholarships to ensure that the pipeline of new female leaders continues to be strong at entry level. These programmes are intent on sourcing, attracting and recruiting female candidates to early career development programmes that offer structured, foundational capability building, mentorship and industry relevant work exposure. Various companies have got leadership development programmes for women in leadership roles to help support the advancement of women in their careers.

closing the parity gaps in core mining disciplines.

Our sister organisation, Women in Mining South Africa (WIMSA), runs a programme that offers mentorship to young women in mining in the early stages of their careers. WIMSA is in the process of developing a career booklet, which will be distributed at local schools – especially in mining host communities – that showcases all the different exciting careers available to women. The booklet will include examples of women already in those careers to ensure young girls in school can visualise themselves in different careers in mining.

In addition, the Minerals Education Trust Fund (METF), which is funded largely by member companies of the Minerals Council as well as other companies in the mining value chain, continues to support the sustained continuity of higher education in core mining industry feeder disciplines, namely geosciences, mining engineering and metallurgy and processing, and are tracking close to 40% female students at universities across the country.

What role is the move towards mechanisation, innovation and technology making in attracting more females to the sector?

Mechanisation, innovation, and technology are crucial, not only to attract women into the mining sector, but also to facilitate physical work capacity requirements to be more accommodating and gender inclusive and the re-engineering of work processes to achieve this aim. Mechanisation and technology also create the opportunity to re-engineer remote working models that provide women more flexibility to fully engage in their careers while also having the flexibility to tend to domestic obligations where necessary. The Minerals Council is a partner in the Mandela Mining Precinct, which itself has partnered with universities in Johannesburg, Pretoria and Stellenbosch to modernise the industry and make it safer, productive and cost effective to unlock and extend the life of South Africa's resource endowment.

How is the Minerals Council itself evolving and driving the gender equity agenda amongst its members?

The Minerals Council's board has identified Women in Mining as a key priority pillar in its strategy. It has put structures in place to ensure that the programmes by the Women in Mining initiative receive the highest attention of senior figures in member companies, and that they receive the full support of the industry. Representatives of member companies sit on various forums and contribute strategically to women-in-mining initiatives, while also contributing to the working groups which drive the various work streams that make up the women in mining strategy. It is a format that streamlines the efforts of the Minerals Council and member companies to effect transformation in the sector. ■

Expect **more** sustainability



Solving the challenge of scrap tyres in a way that's practical and sustainable could be around the corner for Southern Africa. After successfully opening a thermal conversion OR tyre recycling facility in Chile that converts scrap tyres into base elements for reuse, Kal Tire is ready to bring this scalable solution to other regions.



De Beers – a pace-setter for gender equity

Nigerian writer Chimamanda Ngozi Adichie said it best when she stated, “Culture does not make people. People make culture. If it is true that the full humanity of women is not our culture, then we can and must make it our culture.” The cultural step-change shaping the mining sector as it aligns to Mining Charter requirements of gender parity speaks to a culture of inclusivity as women begin to play a larger role in the traditionally male dominated mining sector, writes *Nelendhre Moodley*.

Given the Mining Charter’s requirement for industry transformation, stakeholders are making headway in closing the gender equity gap, with many taking a leaf out of diamond miner De Beers’ strategy of surpassing gender equity targets outlined by the charter.

Modern Mining caught up with De Beers Group’s head of equity and inclusion Shahila Perumalpillai to chat about how the company’s gender parity initiatives are setting the bar in the mining industry.

“For us at De Beers Group, we think of women and the advancement of women within the context of our Building Forever strategy, which is our commitment to creating a positive lasting impact that will endure beyond the discovery of our last diamond. Accelerating equal opportunity for all forms a central component of Building Forever and we are weaving it into the fibre of how we do business,” says Perumalpillai.

Transformation according to the Mining Charter requires that mining and related companies’ board



Customer trying on diamond necklace, De Beers Jewellers, Shanghai.

and executive management constitute 50% historically disadvantaged persons (HDPs), 20% of whom must be women. At senior and middle management level, companies need 60% HDPs, 25% of whom must be women, and at junior management level the target is 70%, 30% of whom must be women.

While De Beers is eyeing a workforce of 50% women, the nearer-term target is a female representation of at least 40% women by 2030 across all its management levels.

“We are currently sitting at around 27% representation for our workforce as a whole; however, we are performing better at the executive and senior management levels and are targeting a 40% representation of women in leadership roles by 2025.”

South Africa, which averages 14% women integration into mining, sits at the lower end of the global average, which is pegged at between 15% and 20%. For De Beers in South Africa, in the De Beers Consolidated Mines business unit 25% of senior management and 32% non-senior management roles are held by women; good progress, and a platform on which to go further for De Beers and the sector as a whole.

A journey and commitment to hard work

To achieve the Mining Charter targets, the diamond

To ensure equity, De Beers’ pay audits identify potential pay gaps around equal pay for equal work.

Centre: Mulalo Mukvhadenga, mechanical assistant signalling to haul truck in Venetia Mine.
Below: Deanna Buckley, millwright apprentice at processing plant, Gahcho Kué mine, Canada.



miner's initiatives have been a decade in the making and continue to deliver impressive results, as they tackle issues at grassroots level and unpack key challenges women face on a daily basis.

"We have a number of focus areas aligned with De Beers' forward-looking goals, all of which talk to workforce inclusion and equal opportunity for all," says Perumalpillai. According to Perumalpillai, the diamond miner's female representation journey has been a Group-wide focus for more than five years, during which time De Beers has worked to understand the experience of women in the organisation and what is needed to change in order to encourage women to join and remain at De Beers.

Among the actions implemented by De Beers to support a more inclusive environment have been its formalised inclusion and diversity policy commitments, rolling out unconscious bias training, training and guidance on inclusion and diversity in the hiring processes, reciprocal mentoring for its executive committee and closely tracking indicators to achieve its commitment to gender parity in leadership appointments.

For the African diamond miner, it has been essential to understand, track and unpack the particular challenges faced by women in all its areas of operation, especially in the African and South African mining sectors.

"It is important that we don't overgeneralise people's experiences and need to try and understand the experiences of women across different geographies – for instance, the experiences of women residing in South Africa, Botswana, Namibia or Canada – in the context of their specific regions," Perumalpillai explains.

The De Beers team has thus implemented listening exercises within the organisation to learn about the different perspectives and priorities for people in different geographies.

"In 2016 we undertook a listening exercise with a



High school students in South Africa participating in a De Beers Group and WomEng workshop.

series of focus groups (including men and women), specifically to understand the nuances around gender diversity. We will continue with this programme as it helps us to compare and contrast what we heard at the first session to more recent conversations. Such undertakings assist us to respond appropriately to the diverse needs of our workforce and aid in recognising how aspects such as race intersect with gender, disability and LGBT issues, and respond to different perspectives and experiences," Perumalpillai says.

In 2021, De Beers launched the 'CountYourSelfIn' initiative which looks to improve its understanding of its workforce composition and demographics. The voluntary diversity data collection campaign worked on the philosophy, When you know better you can do better.

Establishing industry partnerships to attract talent

In paving the way for increased inclusivity in the

In 2021, De Beers launched the 'CountYourSelfIn' initiative which looks to improve its understanding of its workforce composition and demographics.

Keatlaletse Ketlogetswe, haul truck driver approaching vehicle, Jwaneng Mine.





Nkhensani Malongete, senior plant foreman and Nthabiseng Marakalala, senior plant monitor at the processing plant at Venetia Mine.

While De Beers is eyeing a workforce of 50% women, the nearer-term target is a female representation of at least 40% women by 2030 across all its management levels.

sector, the precious stones producer has partnered with industry leading organisations such as WomEng and HeForShe.

“In 2016, we established our framework for action on gender diversity and inclusion which we aligned to leadership and culture, talent development and policy and measurement. The aim was to achieve gender parity in appointments to leadership roles, and as part of this initiative, we partnered with the UN Women HeForShe movement in 2017. We have since been able to ramp up the appointment rate of women in leadership roles, increasing it from 22% in 2017 to 41% in 2022,” Perumalpillai continues. “Leadership representation is at 32%, up from 17% in 2017. To shift the dial on women at all levels we recommitted to the HeForShe Alliance in 2021 to further develop women in science, technology, engineering and mathematics (STEM) related roles, with the aim of doubling representation to around 30% by 2030.”

The partnership with WomEng launched in 2019 and offers support for women and girls to pursue careers in STEM. The partnership was extended in 2022 to support female founders in producer countries as they build businesses and tackle sustainability challenges, and to roll out an Emerging Engineering Leader Programme within De Beers Group targeted at junior levels to improve female representation overall. This move will see the company build a talent pool of women interested in technical roles within the De Beers business. The company plans to engage 10 000 girls in STEM by 2030.

“To date, over 2 300 students have been reached (210 through the Fellowship programme and 2 156 through the GirlEng initiative). The GirlEng initiative

is run in South Africa, Botswana and Namibia and includes participation in local and regional events to help connect students to speakers, role models and each other,” Perumalpillai highlights. “We will extend the programme for a further three years, expanding it beyond southern Africa, to reach students in Canada. Further to this, we have a Fellowship programme for female students studying engineering degrees at universities in South Africa, Namibia and Botswana aimed at developing and enhancing leadership and entrepreneurship skills, and wellness.”

The Fellowship approach will be extended beyond the university system to a pilot programme of a Fellowship of women studying vocational and skilled trades at technical colleges. The overall Fellowship programme’s focus will be extended beyond traditional

STEM subjects to include further future-focused topics such as renewable energies and climate solutions.

“We continue our commitment to improve the female representation journey and extended our partnership with UN Women for a further five years in March 2021. Our CEO Bruce Cleaver remains a HeForShe champion as part of the newly formed HeForShe Alliance, which brings together leaders across government, the corporate world and civil society with the key objective of developing the largest set of scalable and shareable solutions for gender equality’s most pressing challenges,” Perumalpillai says.

Addressing equal pay for equal work

De Beers’ ear to the ground strategy has been a key driver in the miner taking the lead in addressing key issues women face in the mining sector, including improving the physical environment and initiatives to ensure that appropriate PPE is available in the necessary sizes and shapes to address the comfort of women in the organisation.

Equal pay for equal work can be a bone of contention across all industries for women as they climb the corporate ladder and endure salary discrepancies.

In many organisations, women are often paid far lower salaries than their male counterparts undertaking the same or similar jobs. To ensure equity, De Beers’ pay audits identify potential pay gaps around equal pay for equal work.

“Results from pay audits over the last five years, have not identified a widespread, systematic concern related to equal pay for equal work. Where concerns are identified, these are flagged to business units and tailored actions are implemented. We recognise we must be vigilant on the issue of equal pay for equal work and the equal pay audits are a key mechanism to stay on top of the pay disparity issue,” concludes Perumalpillai. ■



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Women make strides in mining

Propelled by policy and legislation, the mining sector is making strides towards meeting gender equity targets, with mining majors targeting between 30% and 40% of women employment by 2025. *Modern Mining* caught up with ENSafrica's head of department: natural resources and environment, Ntsiki Adonisi-Kgame, to chat about the gains being made in the traditionally male-dominated mining sector's gender equity drive. By *Nelendhre Moodley*.



ENSafrica's Ntsiki Adonisi-Kgame.



Natascha Vijoen – CEO, Anglo American Platinum.

Although women were prohibited from working underground from 1935, as legislated by the International Labour Organisation (ILO), until legislative changes in 1996, South African women have played a key role in above-ground mining positions long before they were legally allowed to work underground.

Given the call for gender equity in the sector, the Mining Charter has set targets for employment equity that must be reached within five years. At board and executive management level the target is 50% historically disadvantaged persons, 20% of whom must

Of the people employed in the mining sector, just 14% are women.



be women. At senior and middle management level, companies need 60% HDPs, 25% of whom must be women, and at junior management level the target is 70%, 30% of whom must be women.

“Although there has been tangible progress in terms of integrating women into the industry, women remain underrepresented in the mining industry, and it will take the joint participation of all stakeholders in the industry to achieve better results,” says Adonisi-Kgame.

According to the Minerals Council of South Africa, the number of women working in the mining sector has increased significantly in the past 15 years, from around 11 400 in 2002 to 64 500 today. However, out of a total workforce of nearly 460 000, this translates to just 14% women employed in the sector. The global number of women in mining is between 8% and 17% – a clear indication that industry globally still has some way to go before the sector is truly transformed.

“The Minerals Council and its members set a stretch target in 2020 to at least double the percentage of women in mining by 2025, reaching 30% to 40% women representation across the industry,” explains Adonisi-Kgame.

“While this may be a challenging target to meet, it is not impossible. In fact, research shows that at tertiary (university) level, there is a greater intake of females, including in subject matters such as engineering (mining engineering), metallurgy and geology, among others.”

Although there are an extensive number of women initially employed by the mining sector, the challenge remains in retaining them, which the sector fails to do, given that women advancement and the pay-gap continue to be issues of contention.

According to Adonisi-Kgame, pay disparity remains a key concern and while there is progress in this regard, it will take time to bridge the pay gap.

“There is not always transparency when it comes to remuneration between the genders. Often, even when men and women undertake the same jobs, men are gifted with titles that ensure they are paid a higher salary and, given the confidentiality clause that surrounds remuneration, the pay gap is often shrouded in secrecy.”

However, if mining companies are to meet their gender equity targets, it is imperative for a mind-set change that accompanies company policy and that

key industry departments, such as human resources departments, are channelled to adjust their recruitment agendas.

According to Adonisi-Kgame, the industry is certainly doing more to attract women to the sector, including addressing women’s safety issues as related to working underground, such as ensuring that women have work buddies when working below surface, that mining equipment and workwear (PPE) such as fitted vests and shoes are designed to suit to the female form and that underground areas are well lit.

The Minerals Council South Africa has developed a white paper focused on streamlining industry strategies to advance women in mining. It aims to do this by encouraging female representation in the industry and to drive decisions that are in the best interests of women.

In this regard, the Minerals Council and equipment manufacturers worked together to identify aspects of equipment and workwear that needed to change in order to be work-appropriate for women. These include the cut and sizing of overalls; the size and fit of helmets, goggles and earplugs, and the sizing and proportions of boots and gloves.

Further to this, advancements in technology continue to play a key role in attracting women to the sector as heavy equipment, which was a physical barrier for women, particularly drilling equipment, is increasingly being automated for ease of use.

“As mining becomes more mechanised, physical strength and stamina are becoming less important than fine motor skills, dexterity and problem-solving abilities. This shift will create significant opportunities for women in the industry,” says Adonisi-Kgame.

The move to greater gender equity has seen more women take up key leadership positions including:



- ❑ Nolitha Fakude – Minerals Council South Africa’s first female president
- ❑ Nombasa Tsengwa – CEO Designate, Exxaro Resources
- ❑ Mpumi Zikalala – CEO, Kumba Iron Ore
- ❑ Zanele Matlala – CEO, Merafe Resource
- ❑ Natascha Viljoen – CEO, Anglo American Platinum ■

Advancements in technology continue to play a key role in attracting women to the sector.

Mineral Council South Africa white paper focus

- ❑ Promoting gender diversity and inclusion at all levels.
- ❑ Helping women attain their full potential and to close the gender pay gap.
- ❑ Develop policies and programmes that advance and protect women, including policies on gender-based violence, sexual harassment and alternative placements during pregnancy.
- ❑ Adapt workplaces to accommodate women, including ablution facilities, lockable toilets, changing rooms, and childcare and lactation rooms.
- ❑ Improving safety measures.
- ❑ Recognise and adjust for the different physical capacities of women.

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Giyani Metals drives gender diversity

By Tavistock's Adam Baynes (associate) and Tara Vivian-Neal (consultant)



Elisa Davis.

It is widely accepted that, traditionally, mining struggles to attract women to join its ranks. According to recent research by McKinsey, between eight and 17 per cent of the global mining workforce is represented by women. However, more concerning is that there are far fewer women working at the executive level of the mining industry.

Honing in on Botswana, one of Africa's premier mining jurisdictions, there is little evidence – although the data is sparse – that the situation there is much different. This is despite the fact that there are many women in the industry with the requisite skills and knowledge to make a significant contribution to the sector.

Elisa Kgomotso Davis, newly-appointed country manager for the TSXV-listed high purity manganese developer Giyani Metals, is one such example of the untapped potential of female talent in the sector. She is responsible for overseeing everything that Giyani does in Botswana, particularly in guiding the development of the company's portfolio of high-quality assets within the Kanye Basin in south-eastern Botswana.

In an interview Davis spoke about some of her experiences during her 12-year career, her ambitions for the future, and what Giyani Metals is doing in Botswana to welcome more female talent.

Davis explained that, especially earlier on in her career at various companies, she experienced

stereotypical backward attitudes: "You could be made to feel like you don't belong, or that you could not do certain jobs or activities, physically and mentally. There was also a lot of undermining, and one's intelligence was questioned, just because you are a woman."

Specifically, she remembers the lack of industry-wide practices in place to cater for female employees: "PPE was always too big for me, or didn't fit comfortably, and I was not always able to find safety boots small enough for my feet. There wasn't always anywhere specifically for women to get changed either."

Over the past ten years, Davis says she has noticed definitive change in the sector. "Whereas I fortuitously fell into my profession, these days I know of young women who have dreams of being mining engineers, geologists or metallurgists, and they have a real passion for the industry from a young age." This is where education can really help to normalise the role of women in the sector, and influence future generations of decision makers, Davis adds. She

Davis guides the development of the company's portfolio of high-quality assets within the Kanye Basin in south-eastern Botswana.





SHELL LUBRICANT SOLUTIONS: UNLOCKING EFFICIENCY IN MINING



Lubricants can deliver significant business value by contributing to improved productivity and reduced costs. Shell Lubricant Solutions has worked with customers to develop and distribute a Mine Lubrication Opportunity Survey to identify key points where lubrication can unlock the most value. Improvement opportunities are then implemented after careful collaboration between the customer and Shell Lubricant Solutions.

Over the last five years, Shell Lubricant Solutions has documented projects that delivered over \$139 million in customer savings - \$43 million of which was achieved by mining companies. These savings represent only a fraction of the real-world total, which could be as much as 10 times higher. These figures indicate great potential for a reduction in total cost of ownership (TCO) and industry-wide increases in productivity.

Effective engine lubrication is critical to protect expensive equipment and reduce downtime due to frequent oil changes, maintenance, or even component failures.

Below are some of the ways in which Shell Lubricant Solutions creates business value in mining.

Shell Remote Sense

Time is of the essence in oil condition monitoring. Shell Remote Sense complements and enhances traditional oil monitoring services and can be fitted to a wide range of equipment, including engines, gearboxes, axles, and hydraulic systems. The sensors provide real-time alerts and transmit diagnostics while the equipment is operational, which means there is no need for service interruptions. Small issues can be caught and attended to before they can become big problems.

Shell LubeExpert

The Lubricant Service Experts are highly trained technicians that spend most of their time at customer sites, inspecting critical machinery (like excavators, draglines, shovels, mills, and kilns) and identifying potential lubrication issues. They also instruct customers on the need for preventive maintenance, which can lead to millions of dollars in savings and can help avoid major breakdowns.

www.shell.co.za/business-customers/services-for-customers.html

SHELL LUBRICANT SOLUTIONS

Shell LubeMatch

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Shell LubeCoach

A customised training programme, led by Shell technical experts with substantial field experience. It offers practical coaching to customers' staff on lubricant management techniques.

Shell LubeAnalyst

A global oil and equipment monitoring service that helps customers assess lubricant condition, identify potential problems, and benchmark equipment performance against comparable oil samples from around the world. Available in 95 countries and 28 languages, it has more than 60,000 users worldwide, and analyses over 750,000 samples a year. The service allows customers to monitor equipment without interrupting operations, and provides guidance on interpretation of results.

Shell LubeAdvisor

A cost-effective, efficient, and non-invasive service aimed at companies that want to prevent breakdowns and unscheduled maintenance. This state-of-the-art fibre-optic tool enables inspection of key internal engine components, including difficult-to-access areas such as the cylinder head, valves, cylinder walls and pistons, without dismantling the engine. Access is gained through the injector, glow, or spark plug. Technical staff will provide a detailed condition assessment, including recommended actions.

A global collaborative network strengthens the innovation capabilities of the Shell Lubricant Solutions Research & Development teams. These R&D teams reside in Technology Centers in Shanghai, Hamburg, and Houston. We are committed to delivering value to customers and thus we invest significant resources in developing new lubricants, greases, and digital solutions.

Shell
LubeAdvisor

Shell
LubeCoach

Shell
Remote Sense

Shell
LubeExpert



Above and right: The number of women working in the field has increased.



also says that she now no longer struggles to find safety boots that fit her, or female changing rooms on-site.

This change is partly due to attitudes moving in line with wider social changes, but also owes a lot to the efforts of certain companies increasing the representation of women.

Giyani Metals is one such company, and it has, over the years, placed multiple women at management and executive levels, including VP of ESG, Marion Thomas, company corporate secretary, Judith Webster, and non-executive director of the board, Stephanie Hart.

Although no longer working on mine sites every day, Davis says that the number of women working in the field has also increased, and that anecdotally they feel more comfortable and happier in their work.

Once Giyani begins producing its high-purity manganese products, recruitment will be a large focus. Naturally, the company will aim to fill many of these new roles with skilled female recruits.



Diversity within Giyani's workforce can offer a range of benefits, such as a wider range of perspectives when faced with problem solving.

As country manager, Davis has noted a large number of young female applicants presenting their CVs and offering their skills and she takes pride in the fact that these applicants will be given equal opportunity to apply for available roles.

Prioritising education is an important route into the sector, and Davis is especially proud of the work she and Giyani are doing to attract and support school and university-age girls and women on a path into mining.

One recent example is of local female Motswana student Keitumetse Keiphethetswe, whom Giyani is supporting through an apprenticeship with the engineering consultancy involved in the construction of Giyani's Demo Plant, which is due to be commissioned in the first half of 2023. From this opportunity, Keiphethetswe will gain enough experience and practical knowledge to be in a strong position to join Giyani full-time next year.

Given that the global battery manganese market is expected to grow by up to fourteen times by 2030, Giyani's commitment to employment diversity will enable the company to select the best candidates from a large talent pool and grow its workforce at speed to meet demand.

Davis reflects this attitude – she doesn't believe in diversity as "a box-ticking exercise" and insists that diversity within Giyani's workforce can offer a range of benefits such as, "a wider range of perspectives when faced with problem solving".

And while she is heartened by the progress made, Davis would like to go even further in eradicating gender bias in the mining industry. Like the female colleagues and top industry executives she used to look up to when she was a young geologist, such as Lucara Diamond's Naseem Lahri, Davis is determined to effect real change and spur on generations of young women into a rewarding and critical sector. ■

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- Heavy Duty: 1.0m³, 1.1m³ & 1.2m³
- Severe Duty: 1.0m³



E260LC EXCAVATOR

Net Power: 143kW
Max Digging Depth: 7.61m
Operating Weight: 26 300 - 26 900kg
Bucket Sizes:

- General Purpose: 1.3m³ & 1.4m³
- Heavy Duty: 1.3m³, 1.1m³, 1.4m³ & 1.5m³
- Severe Duty: 1.3m³ & 1.4m³



E300LC EXCAVATOR

Net Power: 159kW
Max Digging Depth: 7.30m
Operating Weight: 31 500 - 32 200kg
Bucket Sizes:

- General Purpose: 1.6m³
- Heavy Duty: 1.45m³ & 1.6m³



E380LC EXCAVATOR

Net Power: 232kW
Max Digging Depth: 7.66m
Operating Weight: 38 200 - 40 100kg
Bucket Sizes:

- General Purpose: 1.6m³ & 2.0m³
- Heavy Duty: 1.6m³, 1.8m³, 2.0m³ & 2.2m³
- Severe Duty: 1.6m³, 1.8m³ & 2.0m³



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Diversity increases the bottom line – Lucara Botswana

By Tavistock's Adam Baynes (associate) and Tara Vivian-Neal (consultant)

In August each year, South Africa marks Women's Month, paying tribute to the more than 20,000 women who marched to the Union Buildings on 9 August 1956, in protest against the extension of the Pass Laws to Women. In the context of an already highly patriarchal society, these laws were designed to control women even further, reducing the agency of individuals to that of gendered passivity.

The theme of Women's Month 2022 has been titled 'Generation Equality: Realising Women's Rights for an Equal Future' by the South African Government. In light of this, we pay tribute to the female leaders of the African mining industry.

In particular, Naseem Lahri, the managing director of Lucara Botswana, Lucara Diamond's indirect, wholly-owned subsidiary and operator of the Karowe diamond mine, a producer of large high-quality Type IIA diamonds.

In June, Lahri was announced as the winner of the prestigious 2022 Forbes Woman Africa Award at the All-Africa Business Leaders Awards. The award recognises African leaders who inspire confidence by rewriting the rules of the game, who campaign for positive change and are committed to economic and social transformation on the continent. A true pioneer, Lahri is the first woman, and the first Motswana

woman, to serve in this capacity for a diamond mining company in Botswana.

An accomplished Chartered Accountant with a Masters' Degree in Strategic Management, Lahri first fell in love with mining, and the mining industry, 17 years ago through her role with Debswana and work with Morupule Colliery before moving across to the diamond sector, also under Debswana. "Coming from an accounting background, it was a challenge working with miners, but one that I relished; I loved the constantly changing dynamic, and back when I started, it was made even more interesting with the commencement of continuous mining at the colliery, and the introduction of value-added tax (VAT) in Botswana."

After three years managing all diamond sales, and ten years in various senior roles including running the corporate finance department at Debswana,



Naseem Lahri.

Karowe Open Pit Mine.





Karowe Processing Plant.

The Karowe diamond mine produces large high-quality Type IIA diamonds.



Lahri was looking for a change and took on the role of CFO at Lucara Botswana, formally named Boteti, then a small organisation but with room for growth, so, it would seem: “In 2018, Eira Thomas was appointed CEO of Lucara Diamond, bringing a strong female presence to a historically male populated company. She saw the leadership potential in me and put me forward for the role of managing director”.

It was right at this point, realising her dream of directorship, that doubt crept in. “I think generally women question themselves: “Am I ready?” “Am I good enough?” “Maybe I shouldn’t accept”. I put myself through this interrogation but soon realised that you have to jump in and do what needs to be done using your prior experience. I had been moulded through 12 years at Debswana to reach this opportunity and Thomas recognised that. In life, you need those people, the people who don’t know you from a bar of soap, but who recognise your potential. I want to be that person for somebody else.”

At Lucara, there are no salary parity or clarity issues, Lahri laughs: “We are a progressive company. When I was first asked about the gender

pay gap, I thought it was a trick question as at Lucara we don’t experience gender pay discrimination.”

It is with this in mind that Lahri makes her stance clearly and firmly on representation quotas: “I don’t believe in [them], I don’t see them as sustainable. You can chase numbers to an extent, but you have to have a strategy in place for future organic success, not just a once-off.” She continues: “We don’t have a female empowerment programme at Lucara Botswana. If you empower women then you also need to empower men, you cannot discriminate against either gender – even by virtue of promoting one above the other. At Lucara, we believe in gender equality.”

Lahri leads by example, this much is clear, and she is proud to see more women within Lucara, and in general, applying for senior roles and higher paying jobs. With women visible at the forefront of mining companies, more women are being empowered organically: “It took me 17 years to work my way up the ladder, I don’t think it will take my daughter 17 years – as an industry we have begun to recognise the importance of diversity and are establishing platforms conducive to women working in a mining environment: diversity creates dynamism and growth.” Simply put, and from a pragmatic perspective, diversity increases the bottom line.

Her message for women entering the mining industry? “If you can dream it, you can do it, parity is an achievable capability – the sky is the limit. Actually, no: even the sky is not the limit.” ■

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Electra Mining Africa – bringing industry

With over 25 000 m² of floor space already sold and more than 550 confirmed exhibitors, this year's Electra Mining Africa exhibition, which celebrates over 50 years, is gearing up to welcome a host of local and international visitors. *By Nelendhre Moodley.*

“Business events drive the recovery and re-connection of industries, sectors and economies; their importance cannot be underestimated,” Kai Hattendorf, CEO at UDI.

Purchasing decision-makers source new products and speak to experts about latest technologies.

Trade show organiser and portfolio director Charlene Hefer from Specialised Exhibitions says there is much anticipation and excitement around the restart of exhibitions and a general eagerness to return to in-person, face-to-face business events.

“Shows are back and calendars are tight,” Hefer says, citing Kai Hattendorf, CEO at UFI, The Global Association of the Exhibition Industry, who recently noted that this year is seeing the exhibition and business events industry busier than ever.

“We are anticipating a well-attended event from both an exhibitor and visitor perspective. At our recent Electra Mining Africa exhibitor briefing, we were thrilled to see so many seasoned and first-time exhibitors in attendance,” she says.

The theme for this year's show is: *Make Connections That Matter.*

While networking is a great way to interact and exchange information, making a real connection offers much more. “It's the first step to building the enduring and beneficial relationships

that will matter to your business, and your future. Electra Mining Africa offers the opportunity to build long-lasting connections that matter for buyers, sellers and all industry stakeholders, says Hefer.

Moreover, government's recent announcements that face masks are no longer required to be worn and that there are no limits on the size of gatherings, are likely to have a positive effect on attendance.

Electra Mining Africa 2018 attracted close to 30 000 visitors, but trends emerging across this year's shows indicate that visitor numbers are generally lower than pre-Covid events though the quality of visitor is higher, and Specialised Exhibitions is still expecting thousands of senior level decision-makers at this year's event. An exhilarating programme is lined up to ensure that it attracts as many visitors as possible.

Hefer firmly believes that “Electra Mining Africa is a much-needed platform for buyers and sellers to connect face-to-face again. It presents an opportunity for industry networking to take place, to build business partnerships and new connections, and for new products and services to be launched”.

Electra Mining Africa 2022

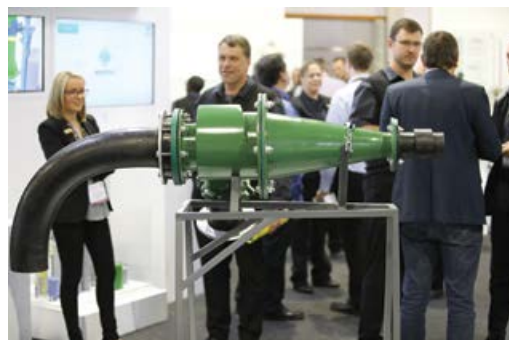
Apart from the old favourites, Electra Mining Africa 2022 is offering an exciting showcase of new technologies, ground-breaking machinery and equipment, and cutting-edge products, systems and services.



The event presents live demos across exhibition halls and outside areas.



Showcasing a broad range of products, technologies, systems and services.



The trade show offers a 5-in-1 experience with thousands of products on display.



Ground-breaking machinery and equipment can be seen throughout the exhibition.

together for over 50 years.

“We anticipate many of our exhibitors will use Electra Mining Africa to launch new products, innovations and technologies and, as we have allocated theme days (Day 2’s theme is Innovation Day which talks to new machinery, products and technology), we anticipate a number of exhibitors will take this as an opportunity to launch new products on Day 2,” says Hefer.

In line with the theme of innovation, exhibitors will be invited by the organisers to enter their new products and innovations to be assessed by independent adjudicator SACEEC CEO, Eric Bruggeman. New Products and Innovation Awards will be presented by the South African Capital Equipment Export Council (SACCEC).

The event will also host seminars, conferences, visitor activations, live demonstrations, theme days, business matchmaking, a brand new Syspro sponsored Exhibitor Lounge, and more. “We’re pulling out all the stops to create a great exhibitor and visitor experience,” Hefer highlights.

Electra Mining Africa and co-located shows Elenex Africa, Powerex, Transport Expo and Automation Expo will be supported by a programme of content-rich conferences and free-to-attend seminars with industry experts speaking on a range of topical and important issues.

The Lifting Equipment Engineering Association of SA (LEEASA) and Women in Mining South Africa (WiMSA) will be running conferences alongside Electra Mining Africa. The Society for Automation Instrumentation Mechatronics and Control (SAIMC) and the SA Institution of Mechanical Engineering (SAIMEchE) will also be hosting free-to-attend seminars.

The new ‘Theme Days’ concept launched at Electra Mining Africa 2018 was enjoyed by both exhibitors and visitors and the ‘every day a theme day’ experience will again be part of this year’s event with Automation Day, Innovation Day, Safety Day, Future Skills Day and South African Day confirmed. The topics for the free-to-attend seminars will align with the theme days. A business matchmaking programme will be available to enhance the event through pre-matching of visitors and exhibitors and the making and management of business meetings on site at the event.

In an effort to promote the importance of Forklift operation and operators in the Supply Chain & Logistics industry, Lifting Africa and LEEASA (Lifting Equipment Engineering Association of SA) will be hosting a forklift driver competition at the trade show. The event will provide forklift operators with an opportunity to prove their driving skills, compete with others around Johannesburg, win prize money,



and achieve recognition as a champion.

Entries are open for all operators who have a valid Forklift license and can drive either a reach truck or a counterbalance forklift truck in racking. The focus of the competition is on accurate, safe driving skills and knowledge, not on speed. The first round of heats for counterbalanced forklift operation will be an online test to assess entrants’ practical skills, theoretical knowledge, attitude and efficiency. Lifting Africa and LEEASA want to assist in promoting the importance of inspection, safety and training and to reward the safest forklift drivers at Electra Mining Africa.

There will also be a Premier Visitor element where exhibitors can elevate the status of their top customers to Premier Visitor with access to premier parking and the premier visitor lounge. These invitations will be extended to key government and industry participants, both local and international.

“We are looking forward to hosting an Inward Buying Mission organised by the South African Capital Equipment Export Council (SACEEC), the details of which are still to be confirmed,” Hefer explains.

In 2018, the event organisers added roadshows to their marketing campaign prior to the event and will again incorporate them this year. The Electra Mining Africa team will travel to different industry relevant visitor focus areas in South and southern Africa to promote the show and share the benefits of visiting. ■

Southern Africa’s biggest trade show of its kind attracts thousands of visitors.

Theme days

Day 1: Automation Day | Connecting with the future

Day 2: Innovation Day | All that’s new in machinery, products & technology

Day 3: Safety Day | A focus on Occupational Health & Safety

Day 4: Future Skills Day | Training & Skills Advancement trends

Day 5: South African Day | Celebrating 50 years and all things local

Multotec technology helps clients realise ESG goals

Metallurgy and process engineering company Multotec, which has exhibited at every Electra Mining Africa exhibition since the show was launched in the 1970s, will have its in-house experts on hand to brief visitors on its comprehensive line-up of minerals processing equipment.



Rikus Immink, CEO SA Operations, Multotec.

Given that Electra Mining 2020 was cancelled due to Covid, we see this year's show as an excellent opportunity to reconnect with our customer base," says Rikus Immink, who is Multotec's CEO – South African Operations. "The overall theme will be how our equipment and systems can assist customers in realising their Environmental, Social and Governance (ESG) goals. We will also be emphasising our strong commitment to South Africa. We are a global group now but we started in South Africa and the country still accounts for about half our revenues."

Virtually all Multotec's products can, to a greater or lesser extent, reduce consumption of resources such as water and energy and allow for more efficient operations. A prime example is provided by the pulping chute, a highly innovative concept in fines scrubbing which was first installed at Ekapa Minerals' Combined Treatment Plant (CTP) in Kimberley in late 2019. More recently it has been successfully trialled at a diamond mine in Botswana.

"The pulping chute performs the scrubbing action faster and more efficiently than a traditional rotary scrubber," says Immink "It can use recycled water, which is a major benefit, and it also lowers energy costs. Moreover, it involves less capital outlay. We are very proud of this innovation and it will feature strongly on our Electra Mining stand."

Other Multotec products that contribute to energy and water saving include the company's classification cyclones, which provide efficient solutions for desliming and dewatering; its ultra-fines spirals, which offer a non-chemical process for fines recovery and allow easy water recovery; its centrifuges and filter presses, which deliver effective solid liquid separation and dewatering solutions; and its screening media, whose many benefits include the recovery of non-chemical water.

Immink notes that Mato belt cleaners, which will also feature on the Multotec stand, prevent spillage and reduce clean-up requirements. "This is not a product that gets much attention and yet it can play an absolutely crucial role in cutting wastage and in maintaining a clean environment," he states.

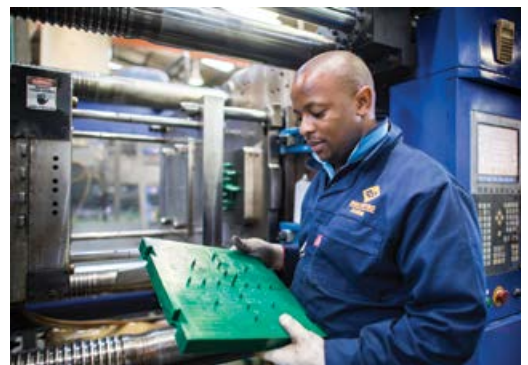
The energy savings made possible by Multotec's products and systems help to reduce the carbon footprints of mine sites. "At Multotec we take carbon footprint reduction very seriously and strive to achieve this both in our own operations and, through our equipment, at our customers' operations," says Immink.

"Multotec equipment that can play a significant role in this respect are our coal spirals, which produce cleaner coal with less energy consumption, our DMS cyclones, which also deliver cleaner coal, and our mill lining solutions, which optimise mill efficiencies, thereby reducing power demand."

The Multotec products that will be showcased at Electra Mining Africa 2022 are manufactured in South Africa, primarily at Multotec's extensive facilities in Spartan, Johannesburg. ■



Multotec's overall theme will focus on how its equipment and systems can assist customers in realising their ESG goals.



Multotec products that will be showcased at Electra Mining Africa are manufactured in South Africa, with the level of local content averaging 60%.



CURIOUS ABOUT BATTERY ELECTRIC VEHICLES? VISIT US AT ELECTRA MINING AFRICA 2022

WHERE: Expo Centre, Nasrec, Johannesburg
Hall 5, Stand C22

WHEN: 5 - 9 September 2022

TIME: 09h00 - 17h00

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Weir Minerals to exhibit its extensive product range at Electra Mining

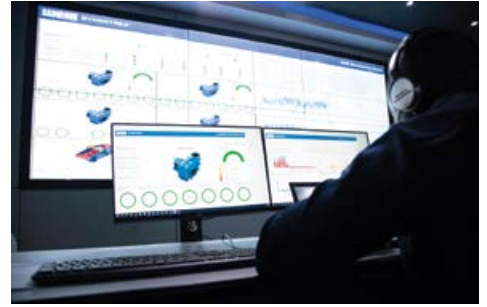
Engineered processing solutions provider Weir Minerals Africa will be exhibiting its extensive range of minerals processing equipment at this year's Electra Mining Africa show where it will have a capacious 300 m² outdoor exhibit.

“After the cancellation of Electra Mining in 2020 due to Covid, we see this year's event as an opportunity to meet our customers and to display some of our latest products and technology-driven solutions,” says Rajen Govender, regional managing director of Weir Minerals Africa, which forms part of the global, LSE-listed Weir Group.

Weir Minerals Africa is busy extending its sales and service network across the African continent and the Middle East, with a particular focus on West Africa, which has emerged over the past two decades as one of the world's growing mining regions. The company already has branches in Ghana and Senegal and, in a recent breakthrough, secured its first major order for Nigeria.

“Our strategic intent has always been to be where our customers need us to be,” remarks Govender. “While we are well represented throughout Africa and the Middle East, we believe there are still opportunities to extend our footprint – and the technologies we offer – to countries where we currently have little or no permanent presence.”

All Weir Minerals Africa's leading brands, including Warman®, GEHO®, Cavex®, Enduron®, Trio®, Delta Industrial™, Linatex® and Isodry™, will be featured on the stand, although the sheer size of some of the equipment will limit the ability to have entire units on display.



The Synertrex control room based at the Weir Minerals facility in Isando.

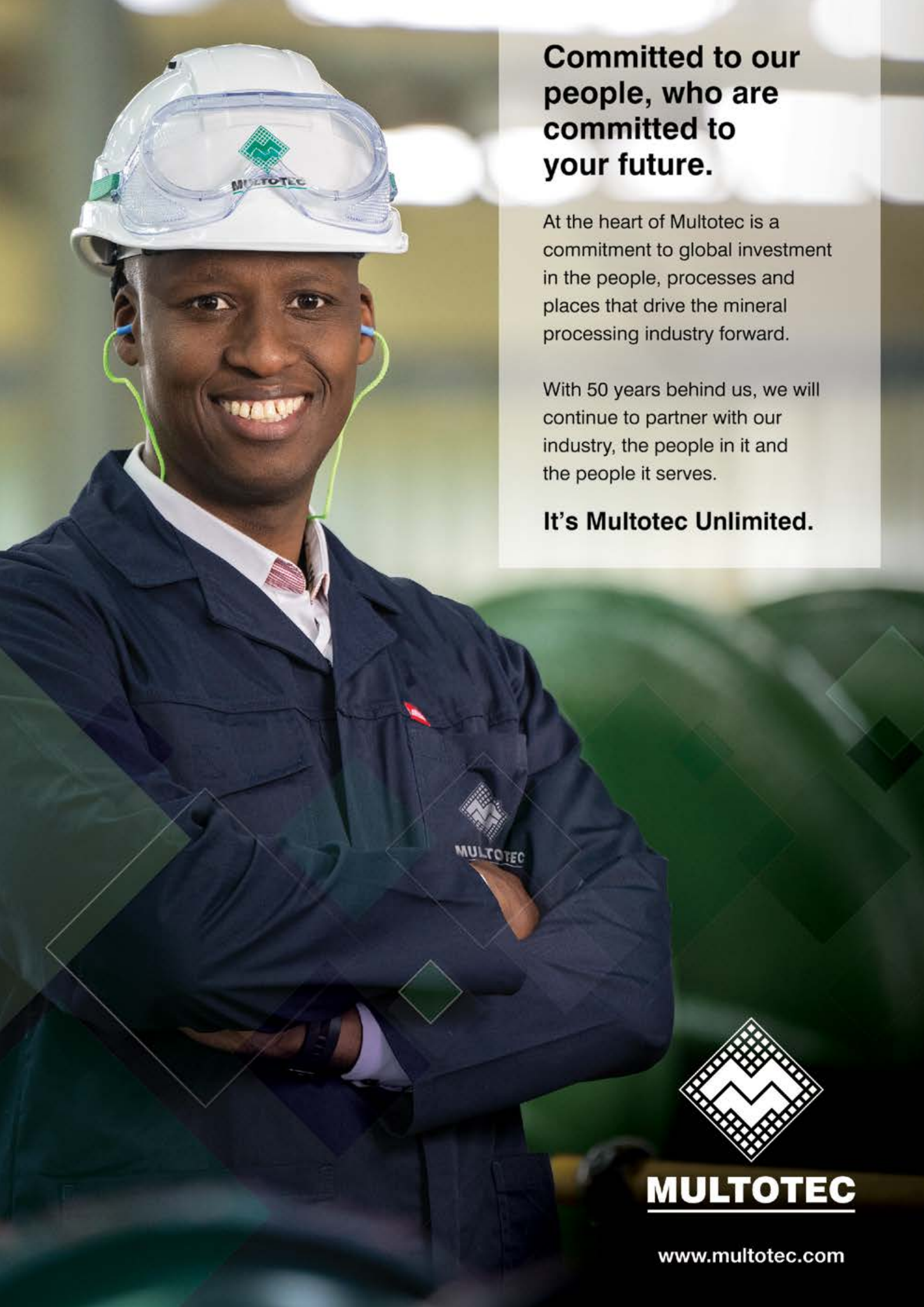
“We will probably have a larger jaw crusher on show,” says Govender. “Visitors can also expect to see some of our Warman pumps, our rubber products and hoses, the Enduron range of screens and HPGRs, as well as our latest Cavex 2 hydrocyclone, which marks a major leap forward in hydrocyclone technology. Equipment that cannot physically be accommodated on the stand will be represented by 3D models and illustrated via audio-visual displays.”

Weir Minerals Africa will showcase its digital capabilities, notably its Synertrex® digital ecosystem which enables customers to access all recorded data of their Weir Minerals equipment, as and when required.

Also on show will be the Synertrex® Intelli-Wear condition monitoring system for hoses and spools, which can be accessed remotely through a dedicated online dashboard. ■



Weir Minerals' GEHO positive displacement pump installed in the tailings section at a fluorspar application.



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Integrated Pump Technology eyes Southern African market growth

Participation at Electra Mining Africa 2022 will serve to underpin Integrated Pump Technology's drive to increase its footprint in Africa. According to GM Jordan Marsh, in the less than 10 years since the company secured the Grindex pump distributorship for Southern Africa it has already significantly increased the product's installed footprint in South Africa and made good inroads into Southern Africa.

Strengthening its distributor footprint in Africa will give ready access to both product and support to existing and potentially new customers in the regions served by Integrated Pump Technology, which include all countries bordered by



The Grindex range of drainage pumps handles water with abrasive solids up to 12 mm in size.



Integrated Pump Technology will be showcasing the latest in the range of Grindex pumps.

South Africa as well as Zambia and the DRC.

"There is a large installed base of Grindex pumps in Africa and, with the brand well-recognised, we have been looking at individual region and country demands as well as available partners to ensure that we have a distributor in place with the requisite depth of knowledge of that particular country's market requirements, who can speak the local language and also has the necessary technical background," says Marsh.

Integrated Pump Technology recently appointed new distributors in Zambia and the DRC, countries which the IPT considers to be vital markets for the dewatering solutions that Grindex pumps offer.

"Our ability to rapidly service the market from our stockholding of Grindex products recently received a significant boost with access to additional capital, and this has allowed us to increase the Grindex pump stockholding at our head office in Boksburg," Marsh concludes.

The company will showcase the Grindex Mega 90 dewatering pump as well as the Grindex Bravo 900 slurry pump at Electra Mining. ■



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Natalie Santiero, marketing manager southern Africa at Sandvik Mining & Rock Solutions.

Sandvik looks to the ‘Future of Mining’

Sandvik Mining & Rock Solutions will have a 385 m² indoor stand at Electra Mining Africa and will introduce its ground-breaking battery electric vehicle (BEV) to the African mining market. In addition, Virtual Reality (VR) and simulator technology will be employed to give visitors to the stand a highly interactive experience. There will also be live demonstrations of Sandvik’s Eclipse fire suppression system, which can be fitted to the company’s drill rigs, trucks and loaders.

“The theme of our stand this year will be the ‘Future of Mining’ and will highlight the many ways in which Sandvik can assist customers to move into the world of the fourth Industrial Revolution (4IR),” says Natalie Santiero, marketing manager for Southern Africa at Sandvik Mining & Rock Solutions. “We will also demonstrate how our products can contribute to a sustainable, Net Zero future. The mining industry is moving very rapidly along this path and we’re very much a part of the evolution.”

The BEV to be introduced will be the 65-tonne payload TH665B. As the largest capacity battery electric truck, this is the flagship of Sandvik’s fast-expanding fleet of BEVs. The machine is at an advanced stage of development with factory testing completed and full-scale trials on a gold mine in Australia due to start later this year.

“The truck we’ll be displaying and launching at Electra Mining Africa is, in fact, the machine that will be trialed in Australia,” says Santiero. “Its appearance at the show will represent its African debut. We see the TH665B as being a critical development, given the determination of many mines to move towards emission-free equipment. It is perfectly paired with our 18-tonne capacity battery electric LH581B underground loader, which was officially launched last year. A South African gold mine has already ordered the LH518B, with delivery expected shortly.”

Sandvik Rock Processing will be showcasing the 800i series of connected cone crushers through a live demonstration of remotely connected units via the digital service SAM. The 800i series comes with Sandvik’s new generation Automation and



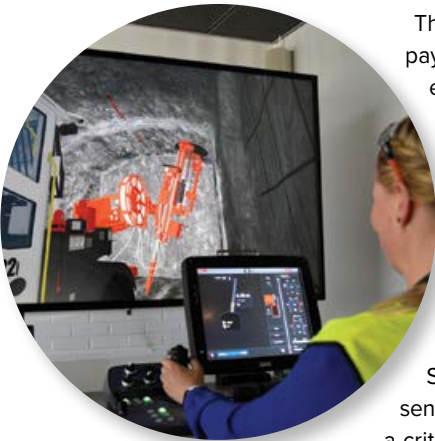
The Sandvik BEV to be introduced will be the 65-tonne payload TH665B.

Connectivity System (ACS), which continuously monitors and optimises crusher performance and controls the complete lubrication system, increasing uptime and reliability.

Training, of course, is a major challenge for many mines and Sandvik will have its Digital Driller™, a compact and flexible solution to safely train operators on the company’s drills, at the show. It allows operators to learn their trade with a realistic simulator which optimises the transition to the real machine.

Also in the digital space, Sandvik’s AutoMine® VR training simulator will be demonstrated. “This delivers a realistic AutoMine® experience for training,” says Santiero. “Visitors to the stand will be able to put on goggles and manipulate hand-held controls to experience and interact with a 3D virtual reality environment to master the complete process of the AutoMine® system start-up procedure, without the need for machine or production area allocations.

“Newtrax, which has been part of the Sandvik family since 2019, will also have a presence on our stand,” says Santiero. “They will be showcasing the Collision Avoidance System and Operations Management under the OptiMine® banner.” ■



The Digital Driller enables comprehensive operator training and learning of the rig’s control system in a realistic environment identical to the real rig.

The 800i series continuously monitors and optimises crusher performance and controls.



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Kwatani flags innovation and digitalisation

Vibrating equipment specialist Kwatani will use Electra Mining Africa to cast the spotlight on its modern multi-slope screen design and the company's strides in digital innovation. The Electra Mining Africa 2022 trade show will be held at the Johannesburg Expo Centre from 5 to 9 September.

While multi-slope screens – generally known as 'banana' screens – have been available since the 1980s and are therefore not necessarily new to the market, Kwatani has in recent years ushered in a whole new approach to the design of these screens, says CEO Kim Schoepflin.

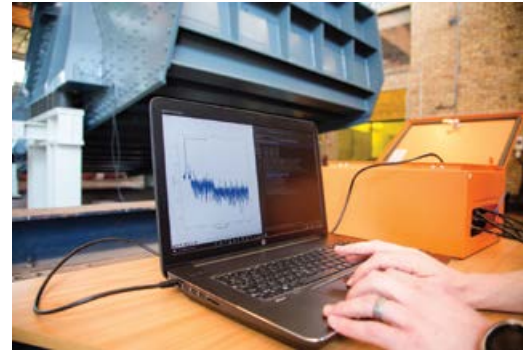
"Traditionally, multi-slope screens have been renowned for their high velocity," she says. "While the high velocity translates into high capacity, the downside is the resultant screening inefficiency and the high wear rate of the panels, which in turn translates into high maintenance costs."

At the top of these screens, explains Kwatani COO Kenny Mayhew-Ridgers, is usually a first slope with a deck angle of at least 34 degrees – allowing material velocities of over 4 metres per second – curving down to end at about 10 degrees.

This traditional layout, however, is not always ideal for many operations today, as it calls for a higher installation height. With a much flatter layout, the Kwatani design means that the installed height of the screen is far lower, translating into lower costs – both from a building and machine fabrication perspective.

"Banana screens have always been designed this way, and it became an industry norm," says Mayhew-Ridgers. "Nobody really evaluated the traditional design, until recently when Kwatani, through its research and development, challenged the norm and adopted an innovative multi-slope design with great success."

Kwatani can design its screens to perform efficiently at a lower building height and fit into existing screen infrastructure. The lower physical height of



Kwatani will showcase its advances in the digital space at Electra Mining Africa.

the screen also impacts the capital cost of complementary equipment such as pumps. "Because you have to pump at lower heights, you can therefore acquire smaller pumps, which means that the energy footprint is also lower," Schoepflin adds.

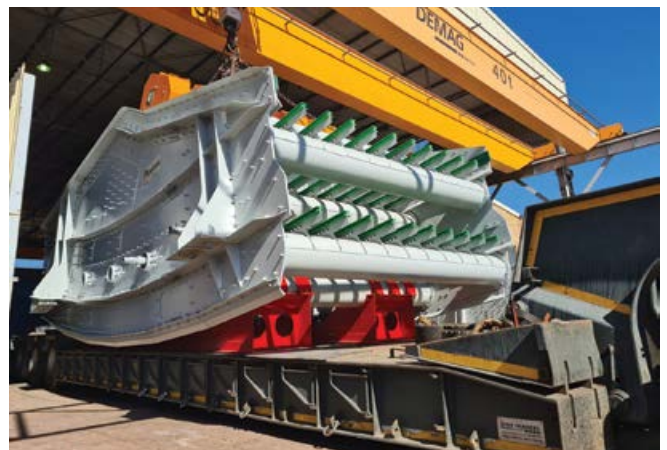
Apart from its leading-edge multi-slope screen design, Kwatani will also showcase its advances in the digital space. Digital technologies, says Schoepflin, have the potential to unlock new ways of managing variability and enhancing productivity. The miniature version of the Kwatani multi-slope screen to be displayed at Electra Mining Africa will be digitally enabled.

"We approach digitalisation in two ways. We believe that sensors are the starting point, as they are where data is created. Embedding sensors in plants, which in turn churn out large volumes of data for analysis, is increasingly attainable," says Mayhew-Ridgers.

"The second scenario is the cloud environment, which is gaining strong momentum across the industry. As mining companies digitally transform, they simultaneously expect greater control over their data with all the benefits of a cloud experience. At Electra Mining Africa, we will showcase these two scenarios – sensors with a PLC/SCADA and control room environment, as well as a cloud solution," adds Schoepflin. ■

Below: Kwatani designs its multi-slope screens to perform efficiently at a lower building height and fit into existing screen infrastructure.

Right: Kwatani has a large reference base of multi-slope screens.



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Trafo's flexibility in the spotlight at Electra Mining

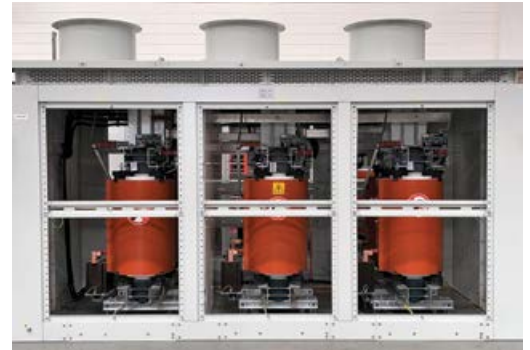
Dry-type transformer specialist Trafo Power Solutions will use Electra Mining Africa 2022 to showcase its ability to customise its solutions for mine-specific conditions.

“Leveraging many years of experience in the mining industry, pretty much across all commodities, we have comprehended that each mine is different and has its own set of challenges,” explains David Claassen, managing director of Trafo Power Solutions. “A one-size-fits-all approach is therefore out of the question, which is why most of our products are custom designed and manufactured to specific site conditions.”

Because they use air as a medium of cooling, dry-type transformers are typically installed in indoor environments, however, Trafo Power Solutions has a wealth of experience in supplying dry type transformers for outdoor applications. The design of the enclosure is therefore critical to withstand the common harsh conditions associated with high dust and moisture levels. Despite the restrictive nature of enclosures, Trafo Power Solutions’ custom design capability guarantees enough ventilation, while



A 3150 kVA 11 kV/400 V cast resin transformer for a mining-specific application, installed in an indoor substation.



Cast resin transformers with various ratings housed in containerised solutions for a mine in West Africa.

allowing for necessary levels of ingress protection to keep dust and moisture at bay.

Amid a renewed focus on environmental, social and governance (ESG) in the mining industry, Claassen says Electra Mining Africa presents an opportunity for the company to showcase how its solutions – dry-type transformers, modular-type and miniature substations, among others – meet the growing requirement for environmentally friendly solutions.

“We see the mining industry as a significant growth area for us. We are looking forward to participating in-person and reconnecting with the various stakeholders, from junior and senior mining personnel to original equipment manufacturers,” concludes Claassen. ■

Mato seeks to expand belt cleaning footprint

Mechanical conveyor belt fastening systems manufacturer Mato will unveil a range of new belt cleaners at Electra Mining Africa 2022 and will also use the platform to highlight plans to expand its supply footprint.

Mato Products, a Multotec Group company, has become a household name in belt lacing equipment and clip fasteners. The two product ranges remain the company’s bread and butter, confirms MD Benjamin Sibanda.

Going forward, the focus is to further grow the supply footprint into other commodities beyond the mainstay market of coal. The plan has already been put into action with a recent contract to supply a gold mine in Gauteng, South Africa. Elsewhere, the company is due to sign a major belt cleaning contract with a Botswana-based diamond mine, which will represent its largest deal to date.

One of the new offerings on display will be the MDP & MTP primary belt cleaner, which replaces the famous locally made MCP3-S model. Another new offering making its debut is the MUS3 secondary belt cleaner, which is designed to fit in small

and restricted conveyor areas where limited space is available.

Completing the new line-up will be the MUS2 Duro, an upgraded version of the MUS2, which has a parallelogram designed into the cushion. This facilitates a constant blade angle attacking the material flow and allowing automatic adjustability within the cleaner for when belt thickness varies. ■

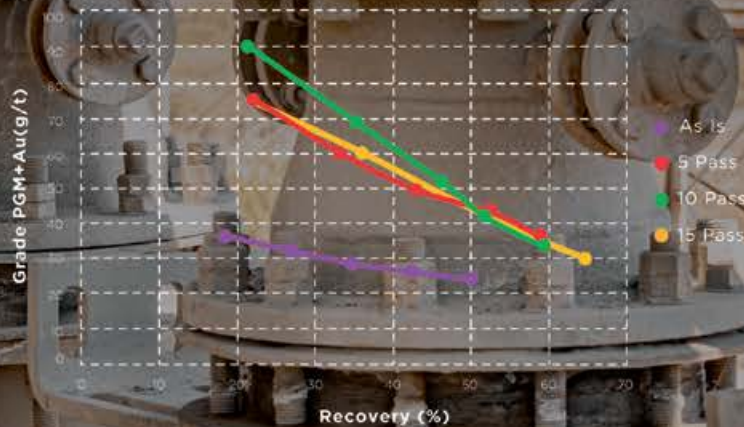


Mato Products will unveil a new range of belt cleaners at Electra Mining Africa 2022.



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Beowolf Mining to launch new products at Electra Mining

Drilling tools supplier Beowolf Mining, which has been supplying rock drills and hammers to the Southern African mining and quarrying markets for the past 18 years, will be launching new drill bits, hammers and an inhouse-designed App, at this year's Electra Mining trade show. By *Nelendhre Moodley*.



Beowolf has developed drill bits to suit the different orebody requirements.

The new hammers and drill bits have been in test phase at an iron-ore and a manganese mine in the Northern Cape.



The strategic supplier to the mining and quarrying industries recently developed an innovative, wireless digital management programme aimed at streamlining drilling information.

“Drilling is a crucial component of mining with clients requiring detailed information such as depth, penetration speeds, and wear and tear of equipment, among others. The new App generates this information, instantaneous providing a step-change to the traditional method of only having access to important information on a weekly basis. The move away from the conventional paper trail means that decisions related to the drilling process can be made on the turn and errors easily picked up and amended. Moreover, the information can be shared with all key stakeholders as it is generated thus allowing for speedy responses from the team,” explains MD Riaan Theron.

Clients attending Electra Mining 2022 will have the opportunity to interact with the new App, which will be showcased at Beowolf Mining's Outside Stand Nr C23 (OS – C23). The company has been attending Electra Mining for the past 14 years and believes that the widely attended event offers an ideal platform to connect with both its existing client-base and potential new clients.

“Aside from the wireless App, we will be launching a range of new products related to our range of



Beowolf Mining will be launching new drill bits and hammers at this year's Electra Mining trade show.

hydraulic hammers – which now offer increased efficiency and improved productivity – as well as new drill bits that have been in the test phase for the past seven months. Given that different commodities have varying types of orebodies with some, such as iron ore and manganese, requiring more robust equipment to meet the arduous operating environment, we have developed drill bits to suit the different orebody requirements,” says Theron, explaining that it takes the equipment producer between 25 to 30 days to produce customised drill bits for the specific mining applications.

The new products (hammers and drill bits) have been in test phase at an iron-ore and a manganese mine in the Northern Cape. According to Theron, the products have performed significantly better than the market average.

Backed by close to two decades of industry experience Beowolf's focus of sub-contracting services to big mining projects, requiring drilling products as well as complete management systems, with infrastructure on site has seen the company growing by leaps and bounds.

“We have firm plans in place to grow the business to become a leading supplier of rock drilling tools to the African continent,” he says.

Aside from its local footprint which currently accounts for the majority of revenue generation, the equipment manufacturer supplies product to Botswana, Zimbabwe and Namibia and is eager to expand into the fast-growing gold producing West African market.

In fact, the company has made great strides in laying the groundwork for partnerships with key West African mining projects and expects to sink lucrative sub-contracting deals with projects in Guinea and Burkina Faso soon, and so shift its expertise and product dominance to African markets. ■

Beowolf MINING (Pty) Ltd



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SEW-EURODRIVE to launch an array of high-tech products

Drive technology specialist SEW-EURODRIVE South Africa will unleash more technology that drives productivity and efficiency at the Electra Mining trade show.

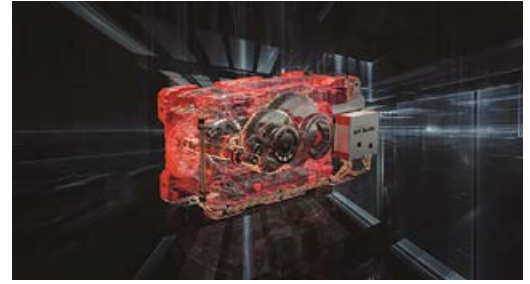
Addressing growing demand for reduced total cost of ownership (TCO), SEW-EURODRIVE South Africa will launch its DriveRadar® solution for remote condition monitoring and maintenance forecasting.

Also on the Electra Mining Africa launch pad is the single-stage M1 series industrial gearbox, for high speed and high-power applications – relevant to pumping duties in mining as one example.

“We will be demonstrating our girth gear capability, with a 3.5 metre diameter static model specially imported for the show,” says Jonathan McKey, national sales and marketing manager at SEW-EURODRIVE South Africa.

Four of these girth gears have already been supplied to a large mining operation in Limpopo province. Also at the SEW-EURODRIVE South Africa stand will be the company’s purpose-built gearbox solution for air-cooled condensers (ACCs) used for driving fans in power stations.

Maxolution®’s automated guided vehicles.



SEW-EURODRIVE South Africa will launch its DriveRadar® solution at Electra Mining Africa.

The MOVIGEAR® mechatronic drive system will be there, comprising motor, gearbox and VSD. This is designed for flexible use across various communication infrastructures, making it ideal for decentralised applications in the field.

Customers will be exposed to SEW’s new electronic drive – the MOVI-C® – which will soon be one of the key product lines to be locally assembled.

“Another exciting innovation is our automated guided vehicle systems (AGVs), which we will to exhibit at Electra Mining Africa,” says McKey.

“These are valuable assets in any automated process, and they are typically used for logistics and in the automotive industry.” ■



A rendering of SEW-EURODRIVE's segmented girth gears with flange and tangent plated.

IPR to showcase its pump dewatering & dredging offering at Electra Mining

Fast-growing pump dewatering and dredging specialist IPR (previously Integrated Pump Rental) will be showcasing its product range at this year’s Electra Mining Africa.

“IPR is a young company, having been established just seven years ago, but we’re growing rapidly and have tripled our rental fleet since late 2021,” says MD, Lee Vine. “We attribute our growth to the excellence of our service, but Electra Mining Africa has also played a role. Since we started up, we’ve been at every Electra Mining Africa held and the results – measured in terms of new business – have been phenomenal.”

Based in Jet Park, Johannesburg, IPR operates an extensive rental fleet consisting of around 210 pumps, mostly diesel-driven, able to take on virtually any pumping task. These are complemented by dredgers, generators, pump flotation devices, hoses and a full range of accessories.

“We are keen to expand our rental footprint on the continent, although this is by no means an easy task given the ‘red tape’ involved in taking machines across borders,” says Vine. “Having a permanent presence in Zambia, however, will make it possible to provide rental solutions to customers operating both on the Zambian Copperbelt and in the neighbouring DRC.”

According to Vine, visitors to IPR’s Electra Mining Africa stand

will be able to see a wide range of running diesel pumps including the new Himax HH220i from Sykes, which is capable of pumping at 220 litres per second against a head of 110 m. “This is the biggest unit in our rental fleet,” notes Vine. ■



An Allight Sykes XH150 trailer mounted pump being used for dewatering at the mine.

FLSmidth progresses MissionZero strategy

Engineering firm FLSmidth will be using this year’s Electra Mining Africa exhibition to demonstrate the progress it is making in realising its MissionZero strategy, an ambitious programme which aims at allowing mines and process plants to achieve zero emissions, zero water waste and zero energy waste by 2030.

“We believe that MissionZero is achievable and we will be highlighting the technical advances we have already made towards achieving this goal at the exhibition,” says Deon de Kock, FLSmidth’s president for Sub-Saharan Africa, Middle East and South Asia. “Visitors to our stand will see working models and visualisations of our products and systems and how these will integrate into the MissionZero mine of the future.”

De Kock says that MissionZero goals can be achieved most easily on greenfield sites, where everything can be designed from the ground-up to enhance energy and water saving, and reduce emissions. He notes though that much can be done with brownfield plants.

“If you can make an existing plant work more efficiently, producing the same output from reduced energy and water inputs, then you’re already taking a big step forward towards the MissionZero objective,” he says.

Innovative products to be featured on the stand will include FLSmidth’s REFLUX® Flotation Cell (RFC). “This draws on FLSmidth’s established REFLUX technology, which has been in the industry for many years now and has proved highly successful, particularly in the coal industry,” says De Kock’s colleague, Alistair McKay, FLSmidth vice president for Mining in Sub-Saharan Africa, Middle East and South Asia. “The RFC brings together the REFLUX concept with flotation technology and will allow process plant operators to start recovering the smaller fractions in

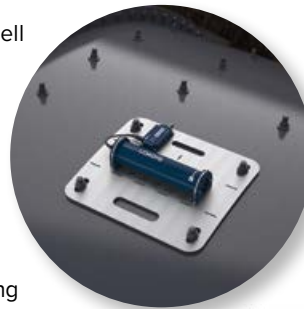


Above: Innovative products to be featured on the stand include FLSmidth’s REFLUX® Flotation Cell.

their ore feeds, as well as introducing coarse flotation into existing systems.”

McKay adds that the RFC is now at an advanced stage of development and that FLSmidth is hoping to have a pilot plant operating in South Africa before Electra Mining Africa.

FLSmidth has many existing products and technologies that are already contributing strongly to MissionZero, including its SmartCyclone™ solution, which automates the monitoring and control of cyclones; LoadIQ, which uses a system of smart sensors and AI software to determine the optimal load in SAG mills; and its EcoTails™ system, which blends filtered tailings with waste rock to create a geotechnically stable product called GeoWaste, which can be used to fill excavated areas. ■



Left: LoadIQ uses a system of smart sensors and AI software to determine the optimal load in SAG mills.



The SmartCyclone™ solution automates the monitoring and control of cyclones.

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Zest WEG poised for African Growth

After a decade-long expansion of its local manufacturing capabilities, Zest WEG, the South African subsidiary of Brazil's WEG Group, is well placed to extend its already broad footprint in the African market.

“We now have six manufacturing facilities in Gauteng and Cape Town, producing a wide range of equipment including gensets, transformers, electrical panels, E-Houses, MCCs and mini sub-stations,” says Zest WEG’s outgoing CEO, Juliano Vargas. “This ability to manufacture locally gives us a huge advantage in the African market, as we can produce economically and deliver promptly to countries throughout the sub-Saharan region.”

According to Vargas, who is taking up an appointment at another operation of WEG Group, Zest WEG’s drive on local manufacture and local sourcing is consistent with WEG’s global approach of maximising local content and procurement wherever possible.

Vargas’s successor as CEO of Zest WEG is Eduardo Werninghaus, who has been with WEG for more than 15 years, and comes to South Africa from WEG’s USA subsidiary.

“Being local in Africa is a key part of our strategy,” says Werninghaus. “We need to be close to the countries and communities we serve. There is a perception that all African countries are the same. This is not so. Each as its own unique culture, its own challenges and its own strengths. Having a presence on the ground in so many countries across the continent allows us to address this diversity.”

Most of Zest WEG’s product offering will be on display at the Electra Mining Africa 2022 exhibition. “Our theme, as always, will be how to change energy into solutions,” says Werninghaus. “There will, however, be a particular emphasis on efficiency



Generators at the Zest WEG manufacturing facility in Cape Town.

and sustainability. One of the products that we’ll be highlighting is our range of WEG IE4-rated super-premium efficiency electric motors, which were launched locally last year and which cost no more than their IE3 predecessors. These are the most energy efficient motors in the market and offer major operating cost advantages to users.”

He points out that electric motors account for about 40 % of all industrial electricity consumption and that around two-thirds of these motors are on mines.

Zest WEG will also be showcasing many high-tech products and systems at Electra Mining Africa 2022. These include the already available WEG Motor Scan, which allows the continuous monitoring of electric motors and other rotating machines; and Pump Genius, a software package that enables a standard VSD to be dedicated to specific pumping systems with various motor and pump combinations, thereby providing improved control and monitoring capability.

Also, on show will be WEG’s new Motion Fleet Management system, which uses artificial intelligence and machine learning to diagnose and monitor rotating equipment such as motors, VSDs, gearboxes and compressors. Based on cloud computing technology, the performance of assets can be monitored at any time from any part of the world. This approach reduces unplanned downtime and optimises repair actions. ■



The WEG IE4 super premium efficiency motor will be highlighted at Electra Mining Africa 2022.

Zest WEG will showcase its mobile substation capabilities at Electra Mining Africa 2022.



TOMRA Mining to demonstrate ground-breaking technology at Electra Mining

Sensor-based sorting technology specialist TOMRA Mining, which will showcase its sensor-based sorting solutions at the Electra Mining 2022 exhibition, will for the first time conduct live demonstrations of its ground-breaking COM XRT 300/FR final recovery sorter to illustrate its advantages for diamond operations.

The company will also present TOMRA's advanced digital products and services offering, such as the TOMRA Insight cloud-based platform and its latest generation TOMRA ACT PC-based system and its portfolio of sorting solutions for the diamonds, metals and industrial minerals industry.

"The Electra Mining Show is the perfect platform for us to showcase TOMRA's advanced mining solutions," says Corné de Jager, diamond segment manager TOMRA Mining. "This important exhibition attracts a wide audience, from operators and metallurgists – interested in smart solutions that are

simple to operate and maintain – to decision makers who need to be up to date with the latest value-adding technologies. At the event we will have the opportunity to meet them face to face and discuss their requirements, giving them a taste of TOMRA's collaborative approach, product expertise and after-sales support."

TOMRA also offers demonstrations of the COM XRT 300 /FR and other sorters at its premises in Johannesburg, South Africa, and at its Demonstration Centre in Wedel, Germany. ■



Corné de Jager- diamond segment manager.



TOMRA Mining COM XRT 300 1.



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Condra aligned with a low carbon footprint

Johannesburg-headquartered Condra Cranes and Hoists' effort to protect the environment exceeds industry norms by a considerable margin, the company says.

At the company's main Germiston factory there are eleven different collection processes for input wastes: steel plate, steel shavings, plastic, white metal, alumin-

ium, brass, tungsten carbide, lubricating oil, soluble oils, paper and (separately) cardboard, as well as composting for organic waste. All eleven collection streams are continuous and carefully organised, and have been in place across the 9000 square-metre factory floor for several years. Similar recycling systems are cur-

rently being implemented at the Cape Town subsidiary, BB Cranes.

Condra's eleven collection streams contrast with the two more usually found at industrial manufacturing plants, one for lubricants and a second for solids.

The effectiveness of the multi-streamed collection approach may be measured by the infrequent collection of Condra's general (unsorted) waste skip – about once every five weeks instead of the weekly collection generally considered the norm.

Most of the separate collection streams pay a dividend. Steel offcuts and shavings from the machine shop fetch about 15 percent of cost price, while aluminium and brass fetch considerably more.

Commenting on these processes, a Condra spokesperson pointed out that Condra's recycling methods are perhaps more effective than the voluminous spin often put on industrial waste collection. "While we continue to work towards official certification, at the moment we believe that actions speak louder than paperwork. We will continue to make a difference through what we do in practice." ■



Condra: Condra has eleven collection streams.



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New Cat MineStar Reporting integrates MineStar and vendor data

Equipment manufacturer Caterpillar recently launched its new Cat MineStar Reporting platform for MineStar Solutions, a reporting and analytics product that is able to consolidate information from MineStar products. Currently, MineStar Reporting supports information from MineStar Fleet, Terrain, Health and Command for hauling. Support for MineStar Edge is currently underway, and all other products will soon be supported.

The easy-to-use reports and dashboards generated by MineStar Reporting are suitable for single or multiple mine sites and can efficiently work with other sources that are not MineStar. Plus, it provides a single data layer for presenta-

tion and analysis regardless of MineStar version. A comprehensive set of reports and dashboards come standard with system installation, the company said.

Data collected from MineStar and other vendor technologies is unified by new MineStar Reporting into a comprehensive database that can be accessed simply and securely via a web browser. The flexible system allows users to create customised reports, so each person is equipped with the appropriate information, while automated email reports



Caterpillar recently launched its new Cat MineStar Reporting platform.

within the system ensure that the data is received at the right time. ■

Gates launches hydraulic hose solution - MegaSys MXG 5K



Power transmission solutions provider Gates recently introduced its latest breakthrough hydraulic hose, MegaSys MXG 5K, which is more durable than a typical 5 000 psi (350 bar) hydraulic hose.

The MXG 5K offers wire spiral performance in a flexible, lightweight, innovative, high-pressure hydraulic hose using Gates patented Xpiral woven spiral technology – a breakthrough construction that exceeds industry standards in terms of both pressure and impulse life, the company said.

“Our ongoing commitment to research and development has resulted in another world-first innovation from Gates. MXG 5K sets a new standard for hydraulic hose,” said Mike Haen, vice president, industrial global product line management.

“Combining industry-leading impulse cycle performance at these hydraulic pressures, with the XtraTuff Plus (XTP) cover and the weight and flexibility advantages, delivers a hydraulic solution for the most demanding applications.”

MXG 5K is a design-in option or replacement hose solution used across a wide variety of industries, including injection moulding, heavy manufacturing equipment, mining, forestry, construction and logistics, among others. ■

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SDLG celebrates 50 years

Represented by Babcock in Southern Africa since 2012, Shandong Lingong Construction Machinery Company (SDLG) celebrates its 50th anniversary of operating in the construction machinery industry this

year. SDLG is listed in the Top 100 of China's Mechanical Industry Enterprises, and has a 70% shareholding by Volvo Construction Equipment.

Jay Moodley, regional manager of



SDLG celebrates 50 years in the construction machinery industry.

Babcock's equipment division, says that Babcock has gained considerable market ground with SDLG since introducing the machines to the Southern African infrastructure sector 10 years ago.

"SDLG is a quality value brand that complements and supports the premium Volvo range of construction equipment. SDLG machines are developed around the concept of 'reliability in action', and are designed to be reliable, hardworking, cost-effective and easy to operate," says Moodley.

Babcock currently offers three SDLG products in Southern Africa: the 9220F grader, and the 938L and 958F wheeled or front-end loaders.

Demand for South Africa's mineral resources on the back of the electric revolution and the war in Ukraine has seen an increase in port activities, which in turn is driving the demand for material handling machinery, says Moodley. "There is huge potential for growth in this market, and Babcock is continuously seeking opportunities to supply products required by the industry." ■

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Air Liquide is a leading innovator in the application of gases to assist the mining and metallurgy industry.

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Worley acquires Minera Mining Technologies

Engineering, procurement and construction specialist Worley has acquired Minera Mining Technologies, a global technical solutions provider to the mining, mineral and metals industry.

Headquartered in Western Australia, Minera’s mining, geological and technical consultants work with mine owners to automate and decarbonise by determining the best-fit technology solutions and strate-



Worley recently acquired Minera Mining Technologies.

gies for their assets. The pairing provides enhanced front-end solutions covering automation, fleet decarbonisation/electrification, and operational benefits realisation.

Adding Minera to Worley’s existing technology and expert solutions team will strengthen the company’s role in the energy transition and bring greater depth to the roadmaps needed to achieve sustainable mining solutions.

“The world needs more mining. But performance and production improvements are required as the energy transition and ESG pressure calls for sustainable materials delivered at pace,” said Nick Bell, global sector lead, resources at Worley. “To meet these demands, the industry needs the right partner to identify and adopt new and emerging technologies, often within an operating environment.”

Said Martin Boulton, director of Minera: “With the introduction of Minera, Worley can create autonomous business plans to help our customers define their target technology landscape, along with the delivery capabilities.” ■

Integrated Air Solutions partners with FS-Elliott

Compressed air solutions provider Integrated Air Solutions has partnered with North American air compressor manufacturer, FS-Elliott. The partnership will include the supply of spare parts, service and plant upgrades to the local existing installed base of FS-Elliott centrifugal oil-free compressors.

FS-Elliott is a global leader in the field of centrifugal air compressors with its Polaris® industrial compressed air range offering reliable flow of oil-free air to ISO 8573-1 Class 0 from 900 cfm to 12,000 cfm, and its groundbreaking PAP PLUS engineered

series flow capabilities of up to 24,500 cfm.

“We identified promising growth potential in Southern Africa for our range of integrally geared centrifugal compressors and see Integrated Air Solutions, with its substantial facility in Jet Park, Boksburg, supported by qualified technicians and sales staff, as a good fit to support its current business interests and future growth in

the region,” says FS-Elliott’s channel partner manager, Kevin Miller.

FS-Elliott offers significant plant upgrades aimed at lowering the operational cost of compressed air. Energy-saving solutions such as compressor re-rate, inlet guide vane conversions and control system refits allow customers to maximise their equipment’s efficiency, resulting in immediate savings and a fast return on investment given today’s high energy input costs. ■

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Integrated Air Solutions to support local installed FS-Elliott centrifugal oil-free compressor base.

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