

# Mining

Z I M B A B W E

ISSUE  
**09**  
AUG 18

*Is gold the  
answer to  
Zimbabwe  
currency  
woes?*

*Mineral  
beneficiation the  
trigger for  
Zim economic  
development - 14*

## MNANGAGWA

### Best for Zim Mining?



---

*Buying used Machinery  
safely and securely - 20*

---



## NEW UNDERGROUND MINING MACHINE SUPPLIERS

# **SAMSS**

South African Mining and Smelting Solutions

### **YOUR COMPLETE SOLUTIONS PARTNER**



We at **South African Mining and Smelting Solutions Pty Ltd (SAMSS)**, introduced into the African Mining markets our range of high quality trackless, underground mining vehicles. These vehicles, designed in conjunction by Hencon; Siberia and Hencon BV; The Netherlands, was first introduced into the Russian market.

The proven, robust design has been performing very well in the Russian Mining Industry, with an ever growing order book for the past few years. Almost double year on year. This introduction was very successful and thus opening the gateway to **SAMSS**, for the African Mining markets. After sales services will be supplied by our group's extensive and widely spread network.



With the first two test vehicles underway; testing will be done in South Africa in 2018 already!

  
**DANGO & DIENENTHAL**  
(SOUTHERN AFRICA) (PTY) (LTD)

**SAMSS**  
South African Mining and Smelting Solutions

**HENCON**  
SERVING PROGRESS



Our vehicles will be available with an optional service contract, thus ensuring hassle free operations to our valued customer based. All vehicles will be equipped with an on-board monitoring system; allowing for real time, performance data availability. All vehicles will also be fitted with an on-board camera system. In comparison with our competitors, we offer exceptional availability, low running costs and complete hydrostatic drive. Advantages of the Hydrostatic Drive System:

- Ensuring fuel efficiency
- Ensuring low operating costs
- Ensuring a smoother ride
- Ensuring easy running on inclined planes with up to 20°
- No gear shifting required
- No gearbox, drive shaft and torque converter used in vehicles



For more information on our state of the art equipment; do not hesitate to contact **SAMSS**:

Director: Hannes Goosen: +27(0)11 425 5005 or [hannes.goosen@ddsa.za.com](mailto:hannes.goosen@ddsa.za.com).

New Business Development Manager: Bennie Botha: +27(0)11 425 5005 or [benniebotha.samss@ddsa.za.com](mailto:benniebotha.samss@ddsa.za.com)

Enquiries: Vicky Visser: +27(0)11 425 5005 or [vicky.visser@ddsa.za.com](mailto:vicky.visser@ddsa.za.com)

# Mining sector poised for further growth following election results

We are delighted to bring you another informative edition on the state of mining in Zimbabwe. Despite the mixed feelings regarding elections results, we would like to congratulate President Emmerson Mnangagwa for being voted the president of the beloved country.

The election results are the bellwether for the country, both politically and as a signal of stability for investors, as Mnangagwa had reiterated that, "the country is open for business".

The country has lagged behind in many areas as a result of isolation for the past 16, 18 years and the shift from a closed economy to an open, productive and peaceful one has rapidly had its effect on the country.

Cypriot investor Karo Resources recently signed a \$4.2bn deal to develop platinum mine and refinery in Zimbabwe, with first production expected in 2020, and will directly create 15,000 jobs. The deal can be heralded as a sign that indeed Zimbabwe is opening up to foreign investment and looking to surge its mining horizon forward.

In terms of sustainable development in mining, thumbs up to Karo Mining Holdings that has chosen solar power over coal for its operations in the Mhondoro-Ngezi platinum belt. In another development, Canadian miner Chimata Gold is working with local partner Jambata Limited on the Kamativi lithium tailings project in Matabeleland North.

This country is renowned globally for its platinum resources, diamond and gold deposits, chrome and other such minerals that have potential to transform this but efficient mineral exploitation has been compromised by inadequate capital, machinery and the export of unprocessed raw minerals instead of the finished product.

In this edition we focus on the unrelenting issues in the Zimbabwe mining sector, trends, new technologies being developed and used to improve this crucial sector, as well as new opportunities and investments arising from it.

For years the country has boasted of what is in its belly in terms of mineral deposits but has not had the wherewithal to exploit these to improve the economy. Zimbabwe breaks world records and in some instances comes second only to South Africa in terms of mineral deposits but output figures have not been that encouraging.

The mining sector is a giant that is reawakening. It needs to anchor the growth path that this country has taken over the past few months.

You can follow us on the social networks below



## Valve Sales, Reconditioning & Rubber Lining

[www.invalve.co.za](http://www.invalve.co.za)

If it's not INVAL®, then it's not Invincible

TEL: +27 (0) 11 822 1777 | FAX: +27 (0) 11 822 3666 | EMAIL: [enquiries@invalve.co.za](mailto:enquiries@invalve.co.za)



# Mining

ZIMBABWE

Dedicated to the Zimbabwe Mining Industry

## Editorials

Editorial Director  
editor@miningzimbabwe.com  
Tel: +27 11 875 2131

Writers/ Journalists  
Justice Zhou  
justice.zhou@yahoo.com

SALES AND MARKETING  
Kenneth Mutasa Sales Consultant  
kenneth@miningzimbabwe.com  
Tel: +27 11 875 2131

Michael Ncube, Sales Consultant  
michael.n@miningzimbabwe.com  
Tel: +27 11 875 2131

PRODUCTION  
Keith Sungiso  
keith@sungiimedia.com  
Tel: +27 11 875 2131 | +27 81 597 7717

PUBLISHER  
Sungie Media (Pvt) Ltd

## ABOUT PUBLICATION

Mining Zimbabwe is the premier source of Zimbabwe Mining news. Our core focus is on the ever evolving face of the mining industry, trends, new technologies being developed and used to improve this crucial sector, as well as new opportunities and investments arising from it. Mining Zimbabwe sole purpose is growing and empowering the mining industry and highlighting all its challenges as well as putting forth expert solutions.

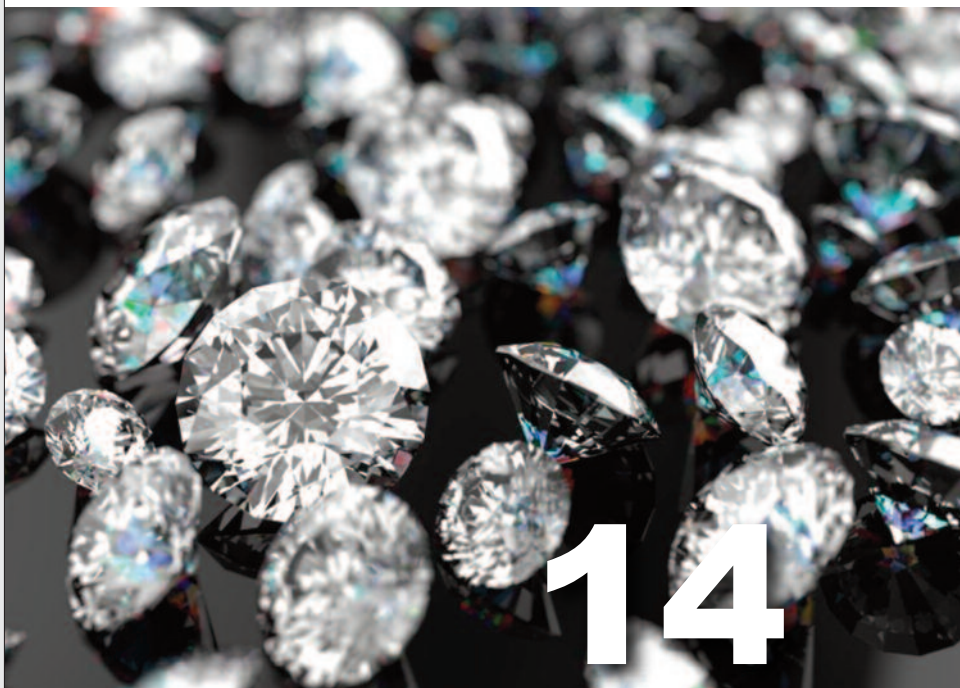


## CONTACTS

2 Main road, Kyasands, Johannesburg 2188  
Tel: +27 11 875 2131 | **Whatsapp: +27 81 897 7717**  
**Advertising:** keith@sungiimedia.com  
**For more info:** admin@sungiimedia.com  
**Web:** www.miningzimbabwe.com

# CONTENTS

Mining Zimbabwe Magazine | AUGUST 2018



## Inside Mining Zimbabwe

### 04 Word from the Editor

#### MINING MATTERS

### 06 Mnangagwa the best man for Zim mining?

### 08 Karo Resources' Zimbabwe integrated platinum project a game changer

### 10 Is gold the answer to Zimbabwe currency woes?

### 12 One stop geological and exploration supply outlet for Africa

#### FEATURE

### 14 Mineral beneficiation the trigger for Zimbabwe economic development

### 16 Bonnox Backfill Mesh For Mines

### 18 Kenneth Mekani leaving Metalon Gold

#### SOLUTIONS

### 20 Buying used machinery safely and securely

### 22 5 reasons to use an ejector body on an articulated truck

### 23 Aggressive underground mining tires for extreme conditions

#### SMALL SCALE MINING

### 26 Mercury Usage in Gold Mining problem

#### MINERAL FOCUS

### 28 All Minerals found in Zimbabwe



**Now the wait for the announcement of a legitimate Zimbabwean leader is over after Emmerson Mnangagwa was announced as the victor in the just ended harmonised elections, bagging a fresh five year mandate.**

A lot of expectations for the new leader are in the air after he managed to garner a majority vote of 50.8% percent against his foe, Nelson Chamisa who was not so far, gunning 44%.



# MNANGAGWA

## the best man for Zimbabwe mining

*Mnangagwa  
is likely the man to  
transform the  
Zimbabwean  
mining landscape  
- Analysts*

**M**nangagwa took over from Robert Mugabe in November following a bloodless military intervention which ensued after the nonegarian (Mugabe) had ruled the Southern African country for more than 35 years.

A lot of changes are being anticipated in all the crucial sectors of the economy and according to analysts, Mnangagwa is likely the man to transform the Zimbabwean mining landscape.

The ascendance of Mnangagwa following the exit of Robert Mugabe through a military intervention came with it massive changes within the mining landscape, key to it being a change in policies.

Keen to revive the mining sector after

years of reticence by foreign investors during Robert Mugabe's rule, President Mnangagwa has managed to turn the country's investment environment into a darling for many.

His summit to power has seen the country amassing a great deal of investments and other tangible commitments coming from hostile countries as far as United States of America.

The takeover of Mnangagwa saw Zimbabwe amending its Indigenisation and Economic Empowerment legislation to limit majority ownership by state entities to only diamond and platinum mines and not the entire mining sector as espoused in the previous legislation.

The indigenisation legislation introduced during the tenure of Mugabe was designed



# Mnangagwa the best man for Zim mining

to increase black Zimbabweans' participation in the mining sector but were open to abuse.

The legislation had become an elephant in the room for Mugabe's Government and it also became a major hindrance to attraction of tangible and clean investments in the mining sector.

The amendments were included in the Finance Act, which covers the 2018 budget and were signed into law. According to the new amendments, only state-owned mining entities will hold majority shares in diamond and platinum companies.

What Mnangagwa has done far has seen a lot mining houses jumping to the conclusion the Mnangagwa's fresh mandate as the President of Zimbabwe might be the best thing ever to happen to the country's mining sector.

## What has been achieved so far?

Cypriot investor Karo Resources has since signed a \$4.2 billion deal with Government of Zimbabwe under Mnangagwa's watch.

The integrated project located in the Mhondoro-Ngezi platinum belt, west of Harare, where Impala Platinum Holdings has operations will include a coal mine and power station to produce electricity for the smelter, and should employ 15,000 people when fully implemented.

Keen to revive the mining sector after years of reticence by foreign investors during Robert Mugabe's rule, Mnangagwa is of the opinion that the deal has capacity to catapult Zimbabwe to greater



Emmerson Mnangagwa

heights.

The project was first mooted six years ago but had been held back by government red tape and "other unnamed vested interests, which were corrupt. Government following Mnangagwa's victory is likely going to continue reforming the investment climate by putting in place investor friendly policies as efforts to attract foreign direct investment intensify.

Mnangagwa has already placed economic development on top of its agenda, with various reforms being put in place to lure investors.

An example is the scrapping of the indigenisation law, making it only applicable to investments in diamond and platinum mining.

The renewed emphasis on the economy has resulted in an influx of investors expressing interest to invest in Zimbabwe from across the globe, including from countries that were previously hostile.

Since November last year more than \$15 billion worth of investment commitments have been registered in a show of faith in the new administration and its ideas.

Again in a show of faith, a large business delegation from the Chinese province of

Zhejiang is in the country to scout for business opportunities following President Mnangagwa's visit to that province in April this year.

Zhejiang is one of China's richest provinces whose main manufacturing sectors include electromechanical industries, textiles, chemical industries, food, and construction materials.

As of 2016, Zhejiang's nominal GDP was \$711 billion, about 6.35 percent of China's GDP.

The focus shown by Mnangagwa during his eight months stay in power is likely going to continue going into his fresh mandate. He might be the best thing to have ever happened in the Zimbabwe mining sector in the past two decades.

*Since November last year more than \$15 billion worth of investment commitments have been registered in a show of faith in the new administration and its ideas*

# Karo Resources' Zimbabwe integrated platinum project a game changer

***The new complex at Karo operations will consist of multiple mines, concentrators, smelters and PGM and base metal refineries.***

---

The recently launched Karo Mining Holdings \$4,2 billion integrated platinum project in the Great Dyke is set to massively transform the Zimbabwe mining landscape which had been mainly characterized by exportation of raw minerals to South Africa for processing.

Chief among facets of the deal is the setting up of a platinum refinery by the company at its Ngezi based operations. To augment power requirements, the mining firm is setting up a 300 MW solar power plant.

This will see Zimbabwe emerging as a global leader in platinum production within the next 10 years once the \$4,2 billion projects comes in line. This project has high hopes considering that Zimbabwe has the second largest platinum deposits after South Africa.

The project was launched by President Emmerson Mnangagwa who said this project is set to create 15 000 direct jobs and 75 000 indirect jobs across the extensive value chain.

Tharisa who are the shareholders of Karo Resources is going to inject \$8 million for the initial activities of the project. The new miner has a range of options for securing funding which also includes bank finance, equity or money from shareholder Tharisa Plc which owns 26,8 percent of the resources firm.

The Ngezi based platinum will entail construction of concentrators, smelter and a refinery. The platinum project is set to turn Zimbabwe into one of the global market leaders within the next five to 10 years.

"This project whose commencement we are gathered here for is a landmark and its implementation is set to change the mining landscape in our country.

"These events are clear demonstration of Government's determination to continuously implement national projects that facilitate economic growth. This integrated platinum project is one of the numerous investment commitments we have received from potential international investors," said Mnangagwa.

He said the project is set to produce significant quantities of platinum group metals per year at optimum production and will see the establishment of other sub-projects such as chrome mining, power plant and base metal refinery. Karo Resources group chairman Loucas Pourolis said securing the mining operation in Zimbabwe had been quite difficult, but through resilience everything came into place.

He said the mining group has the right strategy and plan that will create several jobs and development in the area of Ngezi.

"Zimbabwe is not only blessed with minerals but it is also blessed with a vibrant, hardworking and skilled people and despite the challenges faced by the country in the past, the future remains bright for the country.

"Since 2014 we invested a significant amount of time for us to be where we are today as a mining group," said Pourolis.

"Karo's aim is to build a sustainable, successful and long term industrial complex for all stakeholders."

Pourolis said the Karo project will be one of the largest investments ever made in the history of Zimbabwe and this strategic investment will open a gateway for further diversified investment and development of the local economy.

While the mining group still requires more regulatory approval before pushing ahead, Karo has plans to commission its first open pit mine in 2020 progressing to full production in 2023.

The new complex at Karo operations will consist of multiple mines, concentrators, smelters and PGM and base metal refineries.

Under the scope of the project, Karo will also produce 300 MW of renewable energy in the form of solar power to be fed into the national grid supporting Zimbabwe's objectives of having a balanced mix of power supply.

"Today is a major step in breaking ground to turn this substantial project into one of the global market leaders within the next five to 10 years," said Pourolis.

The setting up of the refinery will mean the mining group will not be sending its material to South Africa for processing like what existing platinum miners are currently doing.





# Minesite workforce optimization solutions

INCREASE SAFETY / PRODUCTIVITY / PROFITABILITY

As a global technology leader in the mining industry, our mission is to increase your site's profitability by optimising the safety and productivity of your operators.

We are the only mining simulator supplier worldwide with a consistent and proven track record of delivering significant and measurable in-field cost reductions, productivity gains and safety improvements, and the only simulator supplier supported by alliances with industry leading OEMs - Caterpillar, Komatsu, Liebherr and Hitachi.

**Phone:** +27 11 973 7900

**Email:** SalesAF@ImmersiveTechnologies.com

Get started with Immersive Technologies today!  
[www.ImmersiveTechnologies.com/results](http://www.ImmersiveTechnologies.com/results)

**IMMERSIVE**  
TECHNOLOGIES

EXPECT RESULTS



South Africa | Zambia | Zimbabwe | Mozambique | Namibia | Ghana | Angola | Kenya | Botswana | Ivory Coast | Pakistan | India | UAE

One of the leading Condition Monitoring companies worldwide

Our primary goal is to maintain plant, components and machinery in tip-top condition to yield maximum output.

How? With a comprehensive proactive maintenance programme that uses oil analysis and many reliability solution services.

We offer analysis of oils, fuels, coolants, greases, filters, heat transfer fluids, transformer oils, turbine and wind turbine gearbox oils and more.

"Speak to a WearCheck consultant today to find out how we can help you reduce unscheduled downtime and maintenance costs"

Download our NEW Condition Monitoring App. WearCheck Mobile. Anytime, Anywhere.

SABS ISO 9001 | ISO 14001 | SANS 17025



**WEAR**  
**CHECK**

Condition Monitoring Specialists

A Part of Torre Industries

[www.wearcheck.co.zw](http://www.wearcheck.co.zw)

[wearcheckzim](https://www.facebook.com/wearcheckzim)

t: +263 (0) 242 446 369

# Is gold the answer to Zimbabwe currency woes?

*It would be rather interesting to find that the sector actually takes the lead in digging its way out of the cash problems, supplying the gold that will be required to support the new currency.*

By Justice Zhou

Damned if you do, maybe if you don't, that's just how Zimbabwe has been grappling with the dilemma of whether its own money should return earlier or not. Or rather be shelved for much longer, until such time that it would be ripe to bring back the local dollar.

The subject has for long been a burning issue. In the final days of the harmonized elections campaign, it has been trending amid swirling rumours that the country was on the verge of reintroducing its own currency even if the opposition had won the elections, backed by gold this time, nearly a decade after it switched to the US dollar in order to rein in galloping inflation.

However, it's not clear if the government is already in the process of stockpiling reserves of the yellow metal to back the proposed money.

It obviously has been tempting for all the presidential hopefuls in the recently held elections, particularly the frontrunners, to see the cash crisis as a key in the race for the top job. By the same token, the mining industry players, some of the hardest hit by the crisis, will find any developments that bring about sufficient liquidity to be a welcome relief. Coupled with forex



shortages, the absence of the local currency remains a major concern for miners whose operations have been thrown into disarray, as they struggle to secure equipment and spare parts, while experiencing delays in paying suppliers. It would be rather interesting to find that the sector actually takes the lead in digging its way out of the cash problems, supplying the gold that will be required to support the new currency.

printing money and the bond note," renowned journalist Hopewell Chin'ono said.

"The government is talking about bringing back the Zimbabwe Dollar to alleviate the cash crisis. It won't alleviate anything! Your own currency is useless if you are not producing anything meaningful for export."

Ironically, the world completely abandoned the so-called gold standard way back in the 1970s, immediately switching to the US dollar as the new-found alternative reserve currency upon which countries would measure the strength of their own currencies.

Experts say some of the major benefits derived from this monetary system are that a valuable and fixed asset would back the money's worth. That, in essence, provides a stabilising and self-regulating effect on the economy, as the government's ability to print money would be limited only to certain quantities of gold. Eventually, it follows that with money printing only depended on the

## QUESTION

**But can gold provide the ultimate answer to the endless cash crunch?**

Up until the greenback began to disappear early 2013, it looked as though the solution to the endless liquidity problems has been found, but alas. The bond notes, introduced in 2016, have not been helpful either. But the more things seem to change, the more they remain the same in Zimbabwe. But can gold provide the ultimate answer to the endless cash crunch?

"We are headed towards a catastrophe if the powers that be are not careful. I have warned before about the dangers of



amount of bullion reserves, runaway inflation will thus be kept under control.

Nevertheless, conspiracy theory has it that the economic powerhouse now abuses its greenback as a tool to manipulate the global economy in its favour, whereas influencing political events in weaker nations for its geopolitical gains. For example, Zimbabwe has coincidentally been cited by critics as a case in point. They argue that the initial abundance of the US dollar during the tenure of the Zanu PF/MDC unity government between 2009 and 2013, and its sudden disappearance thereafter as proof that the country was being punished for former President Robert Mugabe's anti-western rhetoric.

Many have lost confidence in any attempt of reintroducing Zimbabwean dollar, they have argued that it is still too early to reintroduce the local dollar, saying the preliminary solution to the cash shortages alternatively lies in neighbouring South Africa's rand. Former economic development minister Tapiwa Mashakada says joining the Rand Monetary Union would be a moot point.

The MDC alliance through its manifesto also proposed the idea of Zimbabwe joining the rand monetary union as a solution to our liquidity crisis.

"At the end of the day, the MDC Alliance would want to see to it that banks have cash and that ATMs dispense cash. Banking queues will be a thing of the past. In summary the MDC Alliance will take Zimbabwe to the Rand Monetary Union,

decommission bond notes, and address all the macroeconomic fundamentals inhibiting the re-introduction of the Zimbabwe dollar. This is our solution to the liquidity crisis playing out as cash shortages."

Zimbabwe's gold mining and trade legacy traces its history back to medieval times, with the ancient Munhumutapa Empire alleged to have boasted roughly 4 000 gold mines across the country. The empire's mining activities saw tons of bullion ore being purified and later cast into jewellery and means by which to trade with Portuguese and Arabic explorers and other fortune hunters.

Legend also has it that the southern African country was the biblical Ophir, in which King Solomon's mines were domiciled. Today, the yellow metal still holds its place as one of the main contributors to Zimbabwe's economy. For the time being, the people are optimistic that the "Second Republic" is going to bring investor's confidence thereby bringing the economy into stability, having a strong economy would eradicate liquidity crisis and curb it. The mining sector will be kept as a backup measure to counter a possible inflation or liquidity crisis by introducing a gold backed currency. However some has argued that even if investors come, the time frame of balancing the economy might be longer than anticipated and also imports for that time might increase than exports causing further cash shortages.

*The question still, is gold the answer? That is the biggest query that needs imminent answers.*

**MINROM**  
managing mineral resource risk



## MINROM IS YOUR MINERAL RESOURCE MANAGEMENT PARTNER IN AFRICA



### MINROM Specialises in Mineral Resource Management through:



Corporate Advisory Services, Due Diligence Investigations



Tenure Review's for the Resources Investor



Exploration Programme Deployment throughout Africa



3D Geological Block Modelling and Competent Persons Reports



3D Geo Metallurgical Modelling



Mineral Resource Management system and departmental development



Geological skills training and software implementation

**CONTACT US TODAY :**

+27 (0)83 704 0243 | [info@minrom.co.za](mailto:info@minrom.co.za)

**[www.minrom.co.za](http://www.minrom.co.za)**

# GEO-EXPLORE STORE

## GEO-EXPLORE STORE (PTY) LTD

One stop geological and exploration supply outlet for Africa



Geo-Explore Store (Pty) LTD was formed in April 2009 to offer a one stop geological and exploration supply outlet for Africa.

Based on over 25 years of experience in the exploration market, and headed by a geologist, the company is able to assist with a broad range of equipment needs.

Our range of products is available for viewing on our web site, alternatively the catalogue can be downloaded off the web site or mailed to you. If you cannot find what you need, please contact us we will source the item for you!

We are based in Johannesburg, South Africa, but have representation, and ship, throughout Africa.

We have distributor agreements for some of the best quality exploration equipment available, such as core splitters, core trays, racking systems, roller logging tables, geological compasses to name a few.

We manufacture our own equipment where ever possible and we offer full technical support and back up.

Assisting with planning of equipment needs or storage layout and flow diagrams are also part of our service offering so please approach us for assistance if needed.



Web: [www.geoexplorestore.co.za](http://www.geoexplorestore.co.za) | Tel: + 27 11 392 5324 | E: [denis@geoexplorestore.co.za](mailto:denis@geoexplorestore.co.za)

## GEO-EXPLORE STORE

GEO-EXPLORE STORE (PTY) LTD

SUPPLIER OF GEOLOGICAL & EXPLORATION EQUIPMENT

### Geological Accessories

- Hammers
- Compasses
- GPS'S
- Magnets, Scribes
- Hand lenses

### Core Trays & Racking Systems

### Sampling Supplies

- Sieves
- Plastic Bags
- Geochem Envelopes
- Tickets & Tags
- Core Splitters
- Diamond Blades



Denis Blewett | Tel: +27 (0) 11 392 5324 | Fax: +27 (0) 86 580 7392  
Email: [geoexplorestore@geoexplorestore.co.za](mailto:geoexplorestore@geoexplorestore.co.za)

Website: [www.geoexplorestore.co.za](http://www.geoexplorestore.co.za)



# CHIPAN

INVESTMENTS

## YOUR SAFETY PARTNER OF CHOICE

Suppliers of all protective clothing



- ✓ Worksuits
- ✓ Gumboots
- ✓ Safety shoes
- ✓ Gloves rubber and leather
- ✓ Helmets
- ✓ Safety goggles

### ABOUT US

We are distributors of safety and protective clothing, footwear, personal protective equipment and other allied products.

We cover the whole spectrum of the industry; including mining, agriculture, engineering, construction, warehousing and the food industry.

With branches in Gweru, Zhishavane, Kadoma, Kwekwe, Masvingo, Harare we deliver anywhere in Zimbabwe

Shop number 2  
Gand hotel, Kadoma  
Cell: 077 692 4215

**CALL US NOW!**

**073 634 3138**

## WE SUPPLY THESE INDUSTRIES



MINING



CONSTRUCTION



WAREHOUSING



ENGINEERING

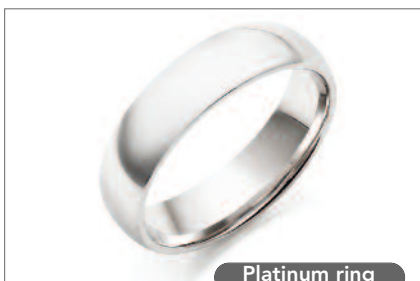
# Mineral beneficiation the trigger for Zim economic development

*“The truth is Zim should be working on promoting “indigeneous” mineral processing currently the companies processing our minerals are foreign owned meaning we still lose half of the proceeds as foreigners repatriate majority of the funds*

Zimbabwe is on the threshold of becoming a dominant world player in the production of minerals and its endowment has generally caught the eye of the world resources market.

The fact that Zimbabwe has one of the largest deposits of the diamonds, the third biggest on platinum means the world has to stand and listen.

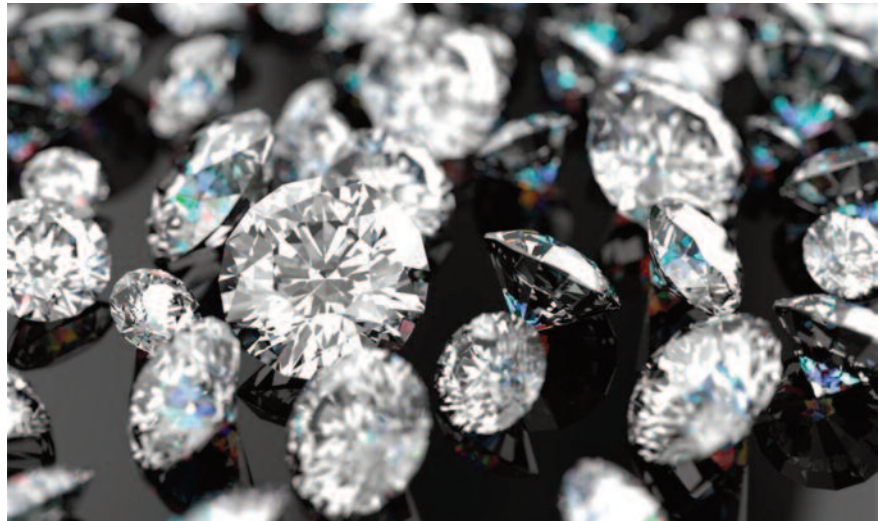
Despite possessing such large resources, Government is still struggling to meet its domestic and international financial commitments. Government of Zimbabwe is struggling to fund social amenities, finance the agriculture sector, resuscitate the country's ailing industry and provide employment for thousands of young people.



Platinum ring

The key to the development of Zimbabwe lies in mineral beneficiation and industrialisation in joint development with its regional neighbours.

Value addition, industrialisation and regional integration are generally linked to



rapid, sustained economic growth in modern economic development, which was a critical reason why regional peers like South Africa has been placing greater emphasis on them.

Resource-endowed countries that had failed to move up the value chain had registered short bursts of growth, but never the kind of relentless growth that had persisted over decades and resulted in intergenerational wealth creation and the reduction of poverty, inequality and unemployment.

Zimbabwe's vast multi-billion dollar non-energy mineral endowment could be more adequately leveraged within Zimbabwe's beneficiation strategy, which is targeting adding value to the country's gold, platinum, diamonds, coal, lithium among other endowments.

Five pilot value chains have since been identified as energy, stainless steel, pigment production, auto catalyst and diesel particulate filters, diamond processing and jewellery. The draft Mines and Minerals Bill requires a proportion of mineral output being reserved for use in

local value-adding activities and sold locally at a developmental price.

Zimbabwe Miners Federation Secretary General Lindi Mpofu said the general feeling now among African countries is that they should process their own mineral resources rather than focusing solely on foreign investment.

“The truth is Zim should be working on promoting “indigeneous” mineral processing currently the companies processing our minerals are foreign owned meaning we still lose half of the proceeds as foreigners repatriate majority of the funds, I firmly believe with all our minerals we can service our country debt if our government structures proper trade deals. We need to keep the bulk of processed mineral funds in the country. So definitely my feeling is we should process our own mineral reserves,” said Mpofu.

In addition, special economic zones, research and development incentives, tax inducements and international trade agreements should be in place to encourage downstream value addition



# Mineral beneficiation the trigger for Zim economic development

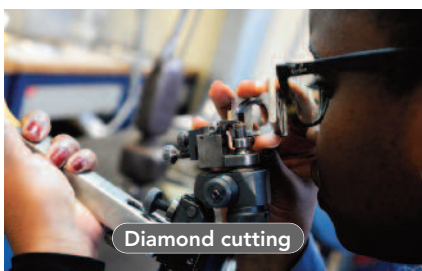
and investment.

To date Government has committed to provision of good transport infrastructure, energy and incentives to enable greater beneficiation and value addition growth.

In as much as beneficiation is the word on everything's mouth, Government thus needs to have a balanced approach to downstream development, with due consideration being given to electricity availability, levels of investor confidence, national limitations and the need for Zimbabwe to remain a premium mining investment destination.

Regional integration would also increase market size, enable firms to improve economies of scale and pave the way for the development of regional value chains, which could lower input costs by reducing the high cost of sourcing goods from afar.

Greater regional integration would also enable firms to use different skills sets and endowments like gas in the neighboring Mozambique, oil in the rich Angola, booming agriculture in Zambia and the proposed Water projects in the DRC (Inga Dam).



A mining research expert at the University of Zimbabwe (UZ) has noted that lack of exploration of the country's mineral deposits and lack of beneficiation of



minerals has been hindering achievement of the country's economic growth targets

the process of implementing these laws and policies.

The local mining industry is also bedevilled by a myriad of problems which include shortage of skills to do exploration and beneficiation, as well lack of local procurement by mining companies who are importing machinery from outside the country.

The mining industry is arguably one of the major drivers of most economies on the African continent. Whilst the mineral assets of African countries are undeniably attractive and profitable, it has in recent years courted controversy in respect of the local beneficiation of minerals, particularly the regulatory requirements driving this trend.

Most African States have devised legislation and policies which attempt to achieve a balance between the interests of investors and those of their citizenry.

Some of these countries are already in

*The general feeling now among African countries is that they should process their own mineral resources rather than focusing solely on foreign investment.*

The attempt to achieve this balance is driven by the need by African Governments to arrest the socio-economic challenges that have for decades troubled the African continent.

While this balance is needed and crucial, it is regrettable that efforts to attain this balance have in some cases only served to damage relations between governments and foreign investors. The situation is further worsened by the uncertainty of the legal framework, meant to facilitate mineral beneficiation across Africa.

The domestic mineral beneficiation agenda promoted by most African countries has spawned policies which are to a large extent characterised by resource nationalism, or at the very least by nationalisation undertones.

# BONNOX BACKFILL MESH FOR MINES



Blue label (Econo range) and green label (Fully Galvanised)

Over a 56 year period (1962 – 2018) Bonnox has introduced numerous new and unique products to the South African agricultural and game market and has become known throughout the country and neighbouring countries as a pioneer in this field. The name "BONNOX" has become synonymous for its wire products and is being recognized by thousands of farmers and businesses.

Since 1996, BONNOX has been the proud and only supplier of top

quality Hinge Joint for Backfill Mesh to Anglo Gold Ashanti. Due to the enormous problems and difficulties experienced in paddock construction with Welded Mesh, BONNOX offered in the mining industry a new type of Hinge Joint Fencing. Because the hinge joint fence is made from a cold weaving process, which does not impair the strength of the lines of the wires (horizontal strands), it eliminates the problems inherent in welded mesh.

On the advice of Anglo Gold, our products were tested according to the specifications issued by the ACC Standards Boards. These tests were successfully conducted in November 1996 by Robertson & Kirsten Consulting Engineers. Not only was the strength of the hinge joint far better, it also proved to be far superior in the underground because of its light weight (18kg against 31kg). This means that they can easily be handled by one or two people without need for forklifts. BONNOX mesh rolls are tightly wound, sturdy and compact.

Customers are welcome to contact us for more info and visit our only BONNOX factory in Sunderland Ridge, Centurion to view our world class products.

## Contact Us

Address: 32 van Tonder Street, Sunderland Ridge, Centurion  
South Africa.

Contact us at [sales@bonnox.co.za](mailto:sales@bonnox.co.za) or telephone

Zane 0761699068 | Gerda : 081 865 4543 | Linda 0727048764



[zane@bonnox.co.za](mailto:zane@bonnox.co.za) ▪ [gerda@bonnox.co.za](mailto:gerda@bonnox.co.za) ▪ [linda@bonnox.co.za](mailto:linda@bonnox.co.za)  
**076 169 9068**      **081 865 4543**      **072 704 8764**

**[www.bonnox.co.za](http://www.bonnox.co.za)**





With us you score  
between the posts  
and convert with  
a **golden boot**



**HINGEJOINT®**



**RINGLOK®**



PREVENT POOR IMITATIONS AND BUY DIRECTLY FROM THE ONLY BONNOX  
FACTORY, SITUATED IN SUNDERLAND RIDGE, CENTURION  
**ONLY A BONNOX INVOICE WILL SERVE AS A CERTIFICATE OF AUTHENTICITY.**

zane@bonnox.co.za ▪ gerda@bonnox.co.za ▪ linda@bonnox.co.za  
**076 169 9068      081 865 4543      072 704 8764**

**www.bonnox.co.za**



# Mekani leaving Metalon Gold



Mr Ken Mekani

## Metalon Gold Official Statement

As Zimbabwe undergoes new, open political developments and the country births a climate that is highly conducive for business, Metallon Corporation aims to increase its investment in Zimbabwe.

The company has completed a corporate restructuring to ensure each Mining Subsidiary is a standalone company with its own management team. The Metallon Corporation Chief Executive Officer position will now be based in London. Therefore, Kenneth Mekani will be stepping down from the CEO role in September 2018. He will remain working for Metallon in the transition phase and the CEO position will be announced in due course.

"Kenneth's experience in the mining industry over the past 31 years has been an asset to Metallon. As the company undergoes corporate restructuring, Metallon Gold Zimbabwe will no longer exist and the head office in Harare will be closed.

Kenneth led the company's transition through various phases of growth and it has been Metallon's wish to have him continue in his role from our offices in the United Kingdom. However, we understand that he will not be able to relocate, due to personal reasons. We look forward to exploring a continued collaboration in other capacities.

We have thoroughly enjoyed working with Kenneth over many years and wish him every success as he transitions to new opportunities," said Mzi Khumalo, Chairman of Metallon.

Mekani's working relationship with Metallon began when he joined then Lonrho Mining as a graduate trainee metallurgist in June 1987. After completing the graduate trainee programme, Mekani was appointed plant metallurgist and he spent several years in the group's various operations where he worked his way up the ranks and was involved in major metallurgical projects. In December 2012, he was appointed acting chief operations officer for the company and in June 2013, he was appointed general manager for the group's flagship operation, How Mine.

"As part of the Metallon restructuring, I was offered a transfer to London which I declined due to personal reasons. I have been part of the Metallon family for more than 3 decades. As I leave the company, I look forward to exploring, with the Board and its Chairman, other ways by which I can continue to give input in the transition phase. I will continue to follow company's success with great enthusiasm," Mekani said.



Safe measurement, indication and control of rotational speed



## Universal speed measurement for explosive areas Hand-tachometers = RHEINTACHO



**Coming soon.**  
**Our brand new ATEX approved**  
**Stationary Stroboscope.**

[www.rheintacho.com](http://www.rheintacho.com)

YouTube

f

in

# Buying used machinery safely and securely

It is an important for contractors and traders of used machinery to ask themselves: How can I purchase second hand equipment without being conned and/or losing money? Buying heavy machinery from unknown suppliers can sometimes pay off, but it is often more likely that unforeseen circumstances cause the buyer to lose money.

## Shopping for used excavators or loaders

The safest way to buy a used machine would be through an established supplier that is both nearby and well-respected. However, it is not always possible to purchase the particular used machinery that you're looking for locally. This is because:

*1) local suppliers may have not the desired equipment in stock, and  
2) if local suppliers do offer the equipment, it usually must travel through multiple independent, and potentially untrustworthy, middle men.*

Plenty of websites offer used construction machinery. The recommended path would be to find a website focused on your regional market, depending on where you would prefer to source used machinery. In North-America, Rock & Dirt or Machinery trader are strong and have a large selection. In Europe, Mascus and Machinery zone are well-respected. In Australia, Construction sales is probably the No.1 website.

## The disadvantage of most machinery websites

Most websites offer a selection for each specific type of machine. It is often possible to configure search parameters such as year manufactured, hours used or price. But what is if someone is looking



Machinery at work

for a 25 ton excavator on tracks with a long stick? What is if a contractor is looking for a wheel loader with 3.5m<sup>3</sup> bucket volume or at least 180 HP? On most known machinery websites today, it is unfortunately impossible to search for technical criteria.

## How trustworthy are machinery sales websites?

It is just the nature of things that not all relevant information is shown online. Information on machinery websites is only as good as the people responsible for the input. Sometimes the desk clerk just doesn't know which information is correct or important. But other times details about features, equipment condition, and maintenance is not shown because it might discourage a potential customer from purchasing the item. Used machine dealers are always using creative ways to sell their wares.

## Condition of used machinery

The worst traders in machinery use a lot of paint and a few spare parts to improve (only) the exteriors of the equipment. Many dealers are short on staff and small

workshops are crowded with sold machines. If a larger trader has several branches, it often happens that the Used Equipment Manager doesn't sign off on each machine as it leaves the yard. That person would then have no idea about the real condition of the machinery.

## Transporting heavy machinery-



Globalization has made it easy to purchase equipment from almost anywhere. But is it reasonable to pay \$15,000 shipping for a \$50,000 machine? Probably not. It would make sense instead to investigate from which areas you can easily and most inexpensively import an excavator or crane.

## Evaluating the options

Buying an excavator or a wheel loader above 15 tons and with an age of less than 10-12 years is an expensive investment; therefore, I recommend having a clear strategy for the purchase



purchase process. First, you need to determine the target machine size or weight. The next important decision would be the brand. Which producer is able to supply spare parts and has service staff available in the vicinity? Then you'd need to study spec-sheets to select the specific

### Type of machinery you need.

Would a Komatsu PC360-LC be suitable or is a PC360 NLC the better choice? Is a Caterpillar 336D a good selection or would it be better to search for a CAT 333E? Once these judgements are made, the database search can start. In most online databases, it is possible to search for particular types of machinery. A good tool to use to compare products is a simple table. It can help to sort the offers by providing a clear overview.

### Receiving accurate information from seller

Most dealers offer a set of pictures for every used machine. If photos or details are missing, it is a good idea to ensure you see these before purchasing. The missing pictures might be of parts in worse condition. The supplier should also provide the machine's serial number – otherwise it is likely that the trader is selling a machine he doesn't actually own, or he may have another reason for hiding the number.

### Checking equipment history

When reviewing a selection of possible machines, it would be wise to contact a dealer of this brand to check the service history of each machine. Major dealers typically have a database with service history and can check if the hour level on a used machine is reasonable. Some may also have a database with stolen equipment. These precautionary checks should be the first steps when evaluating

used machinery for purchase.

### Evaluating the supplier

The most difficult part of the purchase process is verifying the provider. Nowadays scams are well-executed and often extremely difficult to detect. Creating a professional company website that lists offers for heavy machinery would only cost a few hundred dollars. One popular method to dupe buyers is the "coat." Scammers use an existing company without an internet presence to make their deceit seem more legitimate. It is therefore highly recommended to send someone to physically check the equipment and the supplier.

### Verifying the condition of a machine

Sending an equipment engineer for an inspection is not inexpensive. However, in most cases a well-trained machinery inspector would detect enough hidden problems to negotiate for a lower price with the machine seller. In these cases, a thorough inspection would almost pay for itself. If the machine is in irreparable condition, the purchase would fail and the inspection fee would be lost. But losing the fee is probably far cheaper than replacing a worn engine or hydraulic pump. In Europe, Mevas is a good service for inspections and in North America I recommend Honest Inspections.

### Checking fuel emissions

Exhaust emissions and fuel quality should also be taken into consideration. In some areas, the fuel quality is not sufficient for modern engines. The sulfur content of the diesel is often too high and would degrade the filter in a short amount of time. In Europe and the United States, today engines come with TIER IV-engines with complicated exhaust after-treatment systems. In areas with lower emission

standards, it would cause problems to run these engines. The reason is once again the low fuel quality and the required urea for exhaust after-treatment (Ad-Blue). In some cases, the machines can be de-TIERed, meaning they can be adapted to conform to lower emission standards.

### Pay attention to the warning signs

It is often safer to step back from a seemingly good deal if any of these red flags pop up:

- Saying "hurry up, there are three other people interested in this machine"
- Claiming that the machine is far cheaper than normal
- Requesting a down payment prior to inspection
- Supplier only has a mobile phone number
- Supplier uses public e-mail such as Gmail, Yahoo or AOL
- Supplier's business is not visible on Google Maps
- Website is not registered in the same country as the supplier

### In summary: how to make a safe deal when purchasing used machinery

- Select the appropriate machine size and brand
- Carefully decide upon the best region from which to purchase
- Require complete offers with all necessary information
- Compare machine and transport price
- Check emission standards and fuel quality
- Check service and machine history
- Verify the supplier
- Send an engineer to inspect the machinery and supplier

© Written by Wolfgang Bühn, Mevas – [www.mevas.eu](http://www.mevas.eu)

# 5 reasons to use an ejector body on an articulated truck



***Most articulated trucks are made to dump material but there are some good reasons to consider an ejector body which pushes material out,***

according to Weldco-Beales Manufacturing, a company that designs and manufactures specialized heavy equipment attachments for OEMs. In fact, after many years of providing ejector bodies for underground applications, they recently added models for above ground use as a result of market demand.

WBM says there are five reasons to consider ejector bodies.

## **1. Safety and stability**

By eliminating the need to raise the body, the risk of hitting overhead obstacles is reduced. The risk of the machine tipping is also lowered due to enhanced stability. As a result, the operator is able to dump more safely in height-restricted areas and on uneven/sloped or softened grounds.

## **2. Control**

The operator is better able to control the

dump speed and the spread of material by adjusting both the ejection speed and driving speed. The material can therefore be spread more evenly and over a larger distance.

## **3. Dumping in height-restricted areas**

Dumping does not require additional height clearance, making it easier to dump under bridges, power lines, or even underground. If the machine fits, it can dump.

## **4. Minimized material retention**

Since the material is physically pushed out, retained material in the body after dumping is nearly eliminated. This leaves more room in the body for the next load.

## **5. Productivity**

Enhanced productivity is the result of the combined previous four benefits. With

fewer height and ground obstacles, the material can be dumped where it needs to be without involving other machines. With enhanced control, the material can be spread in the first pass without the need to slow down between dump and return. Minimized material retention increases the size of each dump for faster cycle times.

WBM Ejector Bodies are available in various models for all articulated dump truck brands and sizes. Each is designed to use the original manufacturers' components including cylinders, sequencing valve, pins and bushings where applicable. This makes installation easy; after the original dump bed is removed, the WBM Ejector Body is put into place and connected using those factory components, and then some cab wiring is involved. Although in-house installation by WBM is available, it is usually done by the dealer or end user.



# Aggressive underground mining tires for extreme conditions

***"The Pro Line is specifically designed to address the tough conditions found in underground mines and reduce downtime."***

Michelin North America, Inc. is launching its most aggressive answer for underground mining (UGM) tires, specifically made for loaders and transport machines operating in extreme conditions.

Available immediately, the MICHELIN X Mine D2 Pro and the XSM D2+ Pro Line of tires is designed with three key benefits: increased load capacity, improved tire life and improved aggression resistance.

"Underground mining managers demand products that reduce downtime while keeping their operators safe. They do not want underground equipment to stop working due to tire limitations," said Jake Thompson, Michelin marketing manager - mining. "The Pro Line is specifically designed to address the tough conditions found in underground mines and reduce downtime."

The MICHELIN X Mine Pro series has an increased load capacity of up to 18% engineered into the L5 UGM tire through a reinforced 3-star \*\*\* casing and two extra plies which contain crossed-nylon cords encased in rubber for greater resistance and toughness.

Underground mining conditions can bring a premature end to a tire as it encounters sharp rocks, standing water and narrow tunnels. End users highly value a tire which can reach end of life without having to scrap prematurely. To improve tire life, Michelin has incorporated NRF technology(2) that reinforces the sidewalls and resists side-wall injuries from migrating. By significantly improving over-all tire life, mines may have to purchase fewer tires and allow them to improve profitability.

Improved aggression resistance in the MICHELIN X Mine Pro series is made possible through significant improvements to the cables and tread compounds. The encapsulated cables, found in the working plies, provide better protection against aggressions and oxidation. To endure the harshest of conditions, the tire contains optimized

tread compounds(3).

The MICHELIN X Mine D2 Pro tire is available in the United States and Canada in 17.5R25, 18.00R25, 20.5R25, 23.5R25, 26.5R25, 29.5R25, and 29.5R29 sizes. The XSM D2+ Pro is available in 17.5R25, 18.00R25, 26.5R25, and 29.5R29 sizes. To learn more about earthmover tires and services, visit Michelin-Earthmover.com.



Based on comparisons of the MICHELIN XSM D2+ PRO and X MINE D2 PRO to the MICHELIN XSM D2+ and MICHELIN X MINE D2, as set forth in the 2018 Michelin Data Book. Actual results may vary. Based on computer modeling comparisons of the

MICHELIN XSM D2+ PRO and X MINE D2 PRO tires compared to MICHELIN XSM D2+ and MICHELIN X MINE D2 tires. Actual results may vary. Based upon improved aggression resistance and on computer modeling comparing the tread compounds included in the MICHELIN XSM D2+ PRO to the MICHELIN XSM D2+. Actual results may vary.





## A MAJOR FORCE IN THE SUPPLY OF EQUIPMENT FOR THE SPRAYING, PUMPING AND PLACEMENT OF CONCRETE

**JACON IS A WHOLLY-OWNED AUSTRALIAN COMPANY MARKETING ITS RANGE OF PRODUCTS BOTH IN AUSTRALIA AND OVERSEAS.**

Since 1978, the company has been known within the construction and mining industry as a designer, manufacturer and supplier of purpose-built, concrete pumping, spraying and transportation equipment.

Jacon's philosophy is to lead by innovation. That is why Jacon equipment is superbly engineered and continuously updated using the latest technology whilst maintaining the virtues of simple operation & ease of maintenance. Internationally, the company's markets include North and South America, Africa, China and South East Asia and the Russian Federation.

**For enquiries contact our African Distributor  
Nsimbi Equipment Trading**

### CONTACT US

Email: [admin@nsimbiequipment.com](mailto:admin@nsimbiequipment.com)

Cell: +27 (0) 76 491 6951

A Unit 4. 36 Ossewa Street. Chloorkop Ext 19.

Kempton Park. South Africa

### SHOTCRETE EQUIPMENT



### CONCRETE MIXERS



### SERVICE VEHICLES







**Nsimbi Equipment Traders are a proudly South African and 100% BEE owned company.**

Our passion for mining and our main focus is to provide the African market with a selection of world-class products, offering our clients the ultimate in safe, cost-effective and efficient mining solutions. Our head office is situated in Johannesburg, Gauteng with 30+ sub-branches operating in South Africa and abroad.

### **TED – Tracked Elevating Device**

- TED™ (Tracked Elevating Device) is a track-driven all-terrain, battery-operated, remote-controlled belly plate jack. TED™ removes the need for personnel to place themselves under suspended loads associated with the maintenance of heavy earthmoving equipment like bulldozers, graders etc.
- Being of a low-profile design and able to lift 800kg from 315mm to 1170mm, TED™ can be used in very tight spaces under machinery to carry and lift heavy components and manoeuvre them safely over soft/rough terrain.
- With the array of attachments available for TED™, the need for personnel to push, pull or carry heavy loads in and around the workshop or in the field is greatly decreased. TED's™ versatility and reliability will enable maintenance operations to be conducted more efficiently and safely.

**For enquiries contact our African Distributor Nsimbi Equipment Trading**

Email: [admin@nsimbiequipment.com](mailto:admin@nsimbiequipment.com)  
Cell: +27 (0) 76 491 6951  
A Unit 4. 36 Ossewa Street. Chloorkop Ext 19.  
Kempton Park. South Africa

# Mercury Usage in Gold Mining problem

***In alluvial, colluvial or eluvial placer deposits, mercury is used for the extraction of secondary gold by gravity methods.***



Thanks to Mercury's intrinsic properties, it allows for the separating of gold from other materials easily. "Mercury readily forms alloys with other metals called amalgams Mercury is amalgamated with gold to facilitate the recovery of gold from its ores." wrote Anne Marie Helmenstine, It is heated to evaporate the mercury, leaving the gold behind to recover it from the 50% mercury and 50% gold amalgam.

Subsistence artisanal small-scale gold mining is a way to survive for an estimated 10-15 million miners in 70 countries, including approximately 3 million women and children.

Surprisingly and on top of being the world's largest employer in gold mining and representing 90% of the gold mining workforce worldwide, small-scale gold mining produces 15% of the annual gold production.

The Guyana Shield region (Surinam, Guiana and French Guiana), Indonesia, The Philippines and part of Western Africa's coast (e.g., Ghana) are

particularly impacted by the phenomenon. Under the socio-economic and political conditions found in the small-scale gold mining operation, the use of mercury is often considered as the easiest and most cost-effective solution for gold separation.

Mercury Watch, an organization "dedicated to collecting, analyzing, and publically serving information about mercury released to the environment," claim that "artisanal scale gold mining is the single largest demand for mercury in the world. An estimated 1400 tons of mercury were used by Artisanal scale gold mining miners globally in 2011".

## Why Is the Use of Mercury a Problem?

Any of the four stages of the small-scale gold production process, namely amalgamation, separation of amalgamation, removal of excess mercury, and burning of the remaining amalgam, release mercury into the environment. As a result and along Wikipedia, "11% of the human-generated

*Artisanal gold mining is the single largest demand for mercury in the world.*

sources of mercury (50% of the total, the other half comes from natural sources, such as the volcanic activity) comes from gold production. The three largest point sources of mercury emissions in the U.S. are the three largest gold mines. The hydrogeochemical release of mercury from gold-mine tailings has been accounted as a significant source of atmospheric mercury in eastern Canada".

It is acknowledged to be second only (though quite far behind...) to coal combustion as a source of human-

generated mercury emission in the atmosphere.

It is well known that mercury is highly toxic, causing damage to the nervous system at even relatively low levels of exposure. According to the World Health Organization: "Elemental and methylmercury are toxic to the central and peripheral nervous system. The inhalation of mercury vapor can produce harmful effects on the nervous, digestive and immune systems, lungs and kidneys, and may be fatal. (...) Neurological and behavioral disorders may be observed after inhalation, ingestion or dermal application of different mercury compounds. Symptoms include tremors, insomnia, memory loss, neuromuscular effects, headaches and cognitive and motor dysfunction. Children are especially vulnerable and may be exposed directly by eating contaminated fish. Methylmercury bioaccumulated in fish and consumed by pregnant women may lead to neu-rodevelopmental problems in the developing fetus. Transplacental exposure is the most dangerous, as the fetal brain is very sensitive. Neurological symptoms include mental retardation, seizures, vision and hearing loss, delayed development, language disorders and memory loss. In children, a syndrome characterized by red and painful extremities called acrodynia has been reported to result from chronic mercury exposure."

Mercury can contaminate the atmosphere and water at a very long distance, demanding, therefore, a global response to reduce at the lowest possible its uncontrolled use by the small-scale gold mining industry.





Construction Plant & Equipment Sales, Service Transport Hire & On Site Repairs,  
Sale Of Back Up Diesel Generators and More...

Cranes ▪ Excavators ▪ Wheel Loaders ▪ Skid steer Loaders ▪ Telly Handlers ▪ Graders  
Mining Equipment ▪ New Atlas Compaction Equipment & Wheel Loaders

# Karl's Plant

## **New and Used**

15 Lincoln Pl, Farningham Ridge,  
Pinetown, 3610  
Phone: +27 31 811 6546

# All Minerals and location found in Zimbabwe

Agate	Nyamandhlovu, Chikomba, Lupane
Aluminum	Mutare, Nyanga, Mwenezi
Amazonite	Nyamandhlovu, Rushinga
Amethyst	Nyamandhlovu, Hurungwe, Hwange, Makonde, Lupan
Antimony	Kwekwe, Bubi, Mberengwa, Kadoma, Shurugwi
Arsenic	Bubi, Shurugwi, Mutare, Gwanda
Asbestos	Masvingo, Gwanda, Matobo, Mberengwa, Insiza, Makonde, Umzingwane
Aventurine	Masvingo, Beitbridge
Barites	Kwekwe, Mwenezi
Beryl	Hurungwe, Kariba, Goromonzi, Harare, Mudzi, Rushinga, Mutoko, Bindura, Marondera, Gutu, Buhera, Bikita, Chegutu, Hwange, Mberengwa, Gweru
Bismuth	Gwanda, Insiza, Goromonzi, Hwange
Cesium	Mudzi, Bikita, Goromonzi
Calcite	Hwange, Bindura, Chiredzi, Mwenezi
Chromium	Mberengwa, Guruve, Makonde, Gweru, Kwekwe, Shurugwi, Chegutu, Kadoma, Gwanda, Insiza, Masvingo, Chirumanzu
Citrine	Marondera, Harare, Goromonzi
Clay	Harare, Bulawayo, Gwanda, Gweru
Coal	Gokwe, Chiredzi, Beitbridge, Mwenezi, Hwange, Lupane, Binga, Kariba, Hurungwe, Bikita
Cobalt	Kwekwe, Insiza, Shamva, Bubi, Bindura
Copper	Makonde, Kadoma, Mutare, Chirumanzu, Chegutu, Kwekwe, Shurugwi, Beitbridge, Gokwe, Bindura, Chipinge, Bikita, Insiza, Makonde, Harare, Bulawayo, Shamva, Chiredzi, Nkayi, Mudzi, Chegutu, Bindura, Kwekwe, Hurungwe, Bubi, Makonde, Bikita, Gwanda, Masvingo.
Cordierite	Hurungwe, Beitbridge, Chimanimani, Rushinga, Makuti
Corundum	Beitbridge, Chiredzi, Shurugwi, Marondera, Mberengwa, Mazowe, Rushinga, Insiza, Goromonzi, Wedza, Makoni
Diamond	Gweru, Bubi, Beitbridge, Binga, Mwenezi, Mutare, Chivi
Diatomite	Hurungwe
Dolomite	Mutare, Beitbridge, Makonde, Mudzi, Masvingo, Rushinga.
Emerald	Gutu, Masvingo, Insiza, Mberengwa, Hurungwe.
Feldspar	Harare, Bikita, Umzingwane, Goromonzi
Fireclay	Hwange, Chiredzi, Kwekwe, Lupane, Nkayi, Kadoma, Kwekwe
Flint clay	Mwenezi, Beitbridge
Fluorite	Hwange, Guruve, Binga
Garnet	Beitbridge, Hurungwe, Mudzi, Guruve, Rushinga, Marondera
Graphite	Hwange, Hurungwe, Kariba, Makonde
Gypsum	Beitbridge
Gold	Every district in Zimbabwe
Iron	Kwekwe, Mberengwa, Harare, Kwekwe, Buhera, Gweru, Charter, Chiredzi, Masvingo, Mazowe, Kadoma.



# All Minerals and location found in Zimbabwe

Jade	Masvingo
Kaolin	Kwekwe, Mutare, Bubi, Hwange, Kadoma, Mazowe, Harare, Umzingwane, Nkayi, Chegutu
Kainite	Hurungwe, Nyanga, Mudzi, Rushinga
Lead	Mberengwa, Kwekwe, Gokwe, Mutare, Wedza, Hwange
Limestone	Mberengwa, Gwanda, Bindura, Shamva, Mazowe, Kadoma, Umzingwane, Gweru, Chegutu, Chimanimani, Mudzi, Harare, Hurungwe
Lithium	Goromonzi, Mudzi, Buhera, Bikita, Chegutu, Hwange, Harare, Insiza, Rushinga, Mutoko, Mutare, Hwange
Magnetite	Gwanda, Nyanga, Kadoma, Mwenezi, Insiza, Buhera, Mberengwa, Beitbridge, Gweru
Manganese	Kwekwe, Gweru, Makonde, Mberengwa
Mercury	Bubi, Kadoma
Mica	Hurungwe, Rushinga, Kariba, Hwange
Molybdenum	Kwekwe, Insiza, Shurugwi, Makonde, Chipinge, Gweru, Mutare
Mtorolite	Guruve, Mutare
Nickel	Bubi, Makonde, Kwekwe, Insiza, Guruve, Shamva, Shurugwi, Matobo, Chegutu, Bindura, Gweru.
Ochre	Gweru, Kwekwe
Palladium	Kwekwe, Makonde, Shurugwi, Chegutu
Phosphate	Buhera
Platinum	Kwekwe, Makonde, Shurugwi, Chegutu, Centenary
Pyrite	Shurugwi, Gwanda, Mazowe, Kadoma, Bulilimangwe, Shamva, Hwange.
Salt	Mwenezi
Sapphire	Mudzi
Selenium	Makonde
Silica	Gweru, Kwekwe, Makonde, Chegutu, Gokwe, Harare, Goromonzi
Sillimanite	Hurungwe
Silver	Makoni, Makonde, Kwekwe
Talc	Bubi, Guruve, Insiza, Nyanga, Mutare, Mt Darwin, Mberengwa, Goromonzi, Mutoko, Wedza, Kwekwe, Makoni
Tantalum	Hurungwe, Guruve, Kariba, Mudzi, Mutoko, Shamva, Bindura, Harare, Goromonzi, Murehwa, Mt Darwin, Rushinga, Mazowe, Marondera, Gutu, Masvingo, Buhera, Bikita, Mutare, Hwange, Chivhu, Mberengwa, Chimanimani, Makoni, Insiza
Tin	Hurungwe, Mudzi, Shamva, Bindura, Goromonzi, Harare, Rushinga, Mt Darwin, Nyanga, Gutu, Bikita, Hwange, Masvingo, Mutare
Topaz	Hurungwe, Gweru, Mutare
Tungsten	Hurungwe, Kariba, Shamva, Mazowe, Rushinga, Bindura, Guruve, Mt Darwin, Harare, Mudzi, Goromonzi, Bulawayo, Insiza, Matobo, Gwanda, Umzingwane, Bubi, Buhera, Mberengwa, Kadoma, Bikita, Shurugwi, Mutare, Chipinge, Chegutu, Kwekwe, Chiredzi, Wedza, Gweru, Hwange, Masvingo, Makoni
Vanadium	Mt Darwin, Guruve, Bulawayo
Vermiculite	Buhera, Mudzi
Zinc	Kwekwe, Gokwe, Nyanga

# ROCK DRILLING TOOLS



**SINODRILLS<sup>®</sup>**  
GUIZHOU SINODRILLS EQUIPMENT CO.,LTD.

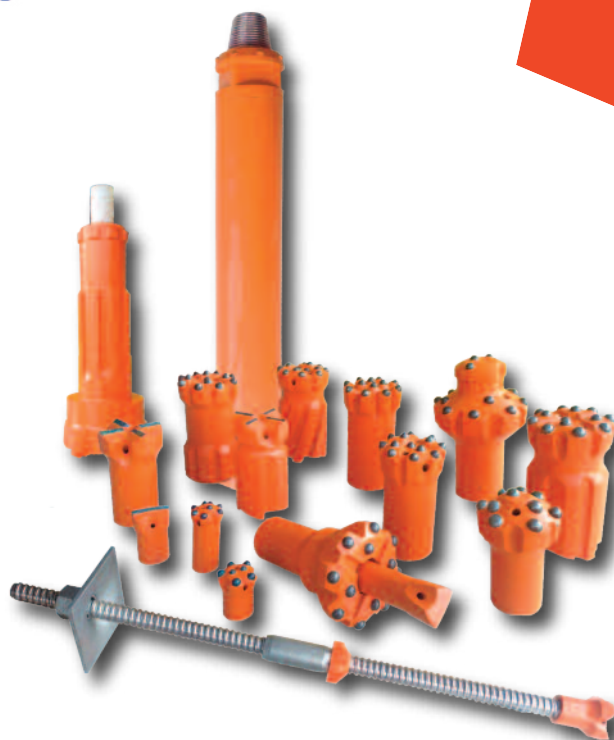


- *Self Drilling Anchor Tools*
- *Down The Hole Drilling Tools*
- *Top Hammer Drilling Tools*
- *Diamond Core Drilling Tools*
- *Drag Bits*

**Guizhou Sinodrills Equipment Co.LTD.**

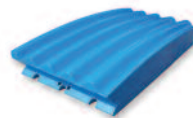
Add: 16F Xiongjun International Building,  
Weiqiang Road, Guiyang, 550003, Guizhou, China  
Tel: 86-851-86821628 | Fax: 86-851-86830552

Visit our website: [www.sinodrills.com](http://www.sinodrills.com) | Email: [sales@sinodrills.com](mailto:sales@sinodrills.com)





# crusher spares ...



**The leading aftermarket manufacturer  
of crusher spare parts and premium  
manganese crusher liners.**

**Ccms  
Ccepcor<sup>™</sup>**

T. +44 (0) 1530 817 000  
F. +44 (0) 1530 817 111  
E. [sales@cmscepcor.com](mailto:sales@cmscepcor.com)



**[www.cmscepcor.com](http://www.cmscepcor.com)**

The Genuine Alternative





**Excellence in  
Fabricating  
Innovative  
Steel Solutions**

# Genrec



**ISO 9001 : 2008**

**ISO 14001: 2004 + Cor 1 : 2009**

**ISO 3834 part 3**

**BS OHSAS 18001 : 2009**

**BBBEE Level 2**

At Genrec, our values deliver your vision. We know that a company's products are a reflection of the team that creates them. Our people are the underlying force driving the delivery of your vision with embedded values to deliver beyond our customers' expectations.

Working with honesty, accountability and care, our collective team is committed to fabricating innovative steel solutions to meet your specific needs. Genrec's capabilities include:

- Total Project Management
- Steel Detailing Solutions
- Light, Medium & Heavy Structural Fabrication
- Heavy Machining
- Planning and Programming
- Material Logistics
- Erection
- Site Services

At Genrec, our team is happy to discuss the value we can add to your projects with our resources, be that a single capability or the entire project offering. Genrec specialises in the manufacture of structures and equipment in diversified markets such as:

**Power Generation  
Petrochemical  
Infrastructure  
Mining, Oil and Gas  
Mineral Beneficiation**

**Industrial  
Energy and Transportation  
Rail Infrastructure  
Rolling Stock**

Energy Fabrication (Pty) Ltd trading as **Genrec**  
Tel: +27 11 876 2300 | Fax: +27 11 827 1733  
Cnr Dekema & Niemann Roads, Wadeville, 1428, South Africa  
E-mail: [sales@genrec.co.za](mailto:sales@genrec.co.za) • Web: [www.genrec.co.za](http://www.genrec.co.za)

**S P Q C P**  
Safety, Productivity, Quality and Cost through People

**SOUTHERN  
PALACE**  
GROUP OF COMPANIES