

*A provider of Valuable Intelligence to the Zimbabwe Mining Community*

# Min<sup>ing</sup> NEWSWEEK

ISSUE  
**02**  
2020

*Covid-19 case confirmed in the Pickstone area - 05*

*Lack of synergies between Ministries has Norton houses built on minable gold claims - 12*

*Post Covid-19, resuscitating Zimbabwe's economy means reforming its mining policies - 15*



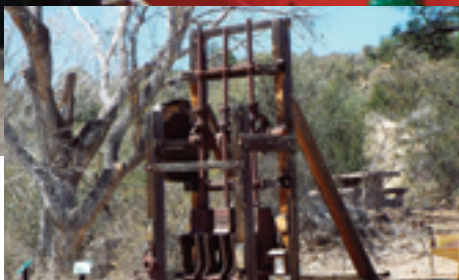
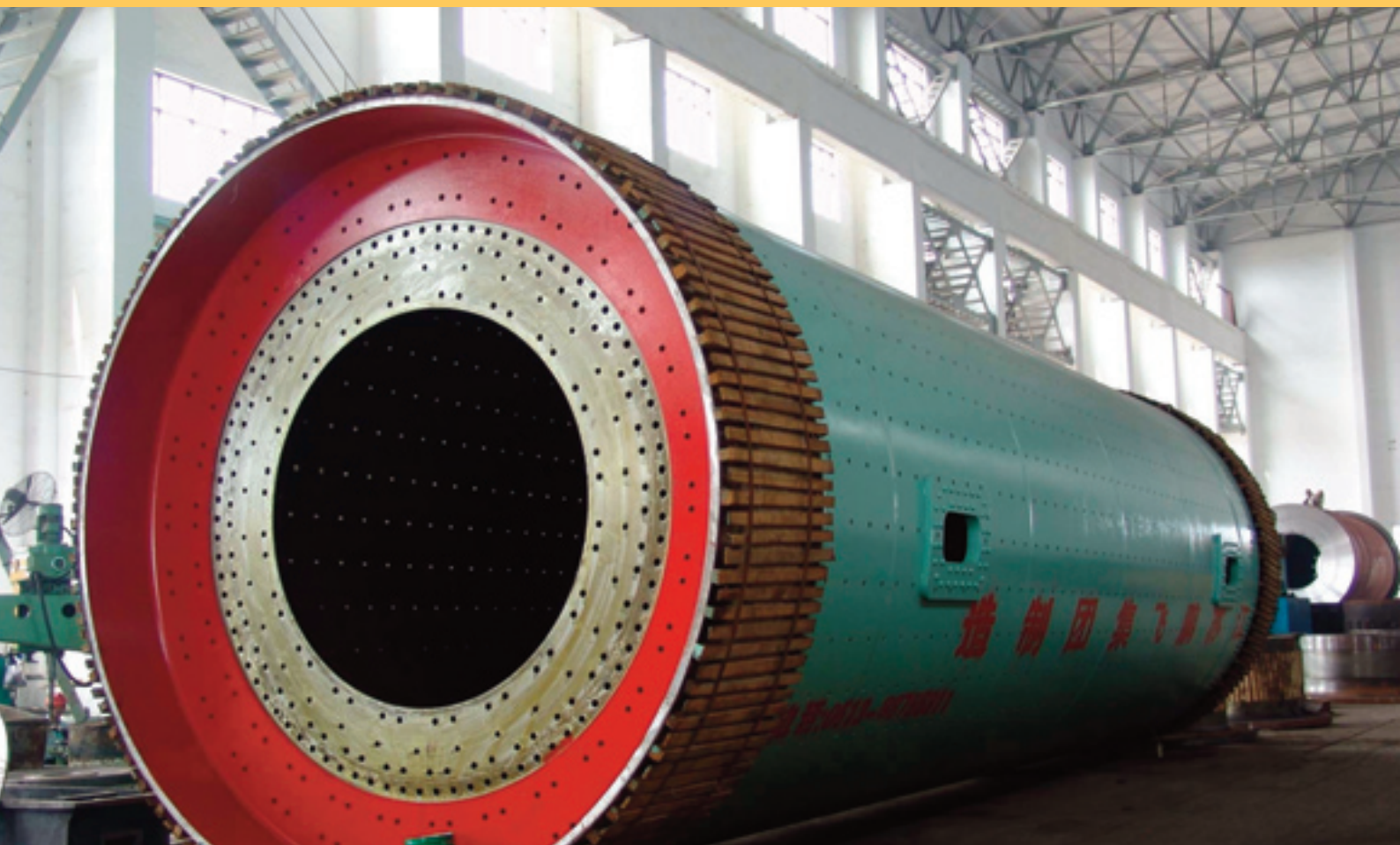
**INTERVIEW**

# **KEITH MANDISODZA**

## **GEOTECHNICAL ENGINEER**

# BIRMET INVESTMENTS

## SUPPLIERS OF NEW AND USED MINING EQUIPMENT



**STAMP MILL**



**WET PAN MILL**



**HAMMER MILL**

## SUPPLYING SMALL AND LARGE SCALE MINERS

### YOUR ONE STOP SHOP FOR ALL YOUR MINING EQUIPMENT

Birmet Investments is your one stop shop for all your mining equipment be it Small or Large Scale.

We supply you with state of the Art Mill range. In stock are Ball Mills, Hammer Mills, Wet Pan Mill and Stamp Mills. Our workshop has certified experienced technicians to also repair faulty mills. Get in touch with us today for quality service

### HARARE WORKSHOPS

51A Steven Drive, Bay 6,  
Msasa, Harare

### KWEKWE WORKSHOP

530 Farraday Street,  
Kwekwe

**Cell +263 772 290 118 or +263 774 576 952**



# Mining

Z I M B A B W E

A provider of Valuable Intelligence to the  
Zimbabwe Mining Community

## WRITERS/ JOURNALISTS

Dumisani Nyoni

Rudairo mapuranga  
rudairo@miningzimbabwe.com

Keith Sungiso  
kaysungiso@gmail.com

## SALES & MARKETING

Kelvin Sungiso  
kelvin@miningzimbabwe.com  
Cell/Whatsapp 0775523000

## PUBLISHER

Timelison Media (Zimbabwe)

## ABOUT PUBLICATION

Mining Zimbabwe premier source of Zimbabwe Mining News. Our core focus is the Zimbabwe 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's sole purpose is growing and empowering the Mining Industry and highlighting all its challenges as well as putting forth expert solutions



Address  
Crn Acacia and Lomagundi Westgate Harare  
Tel: +263 8644 276 585 | [Whatsapp](#) +263 772 701 730

Advertising: [info@miningzimbabwe.com](mailto:info@miningzimbabwe.com)  
Web: [www.miningzimbabwe.com](http://www.miningzimbabwe.com)

# CONTENT

Mining Zimbabwe Magazine | MAY 11 - 17, 2020



**FEATURE ARTICLE:** *As a Potential Covid-19 Induced Recession Looms let's go for gold (full story on page 12)*

## INSIDE MINING NEWSWEEK

### 04 Editor's Word

#### NEWS

**05** Covid-19 case confirmed in the Pickstone area

**06** Lack of synergies between Ministries has Norton houses built on minable gold claims

**09** Chrome miners to form an association

**12** As a Potential Covid-19 Induced Recession Looms let's go for gold

**15** Post Covid-19, resuscitating Zimbabwe's economy means reforming its mining policies

**17** Interview: Keith Mandisodza - Geotechnical Engineer

**23** Minerals and Location in Zimbabwe

**25** Classifieds



## TO ADVERTISE

Call/App 077 552 3000



# Covid-19 lesson Smart business

As the world keeps fighting the scourge of Coronavirus, businesses were caught unaware. Zimbabwe introduced a lock-down to minimise the spread of the Covid-19 pandemic which has claimed 239 000 lives globally.

To survive businesses had to quickly adapt or risk shutting down. In Zimbabwe, most businesses believe in one-on-one meetings which at times may not be necessary if you know and have previously met the client. Imagine instead of driving to see a client at Hwange Colliery you just set up video conferencing and in a few minutes a deal is made without having to travel over 700km saving travel costs hotel bills in the process. Whatever paperwork that may be needed can be sent immediately without having travel back or giving excuses.

Overnight people were forced to evolve to doing business smartly, digitally online. Most businesses were now delivering their products to clients like never before. Traditional print-only news publishers joined us in availing soft copies for readers and in the process reaching more people that print could never ever have reached. Courier business got more popular even for simple basic products. Businesses were now operating from home out of no choice and

video conferencing apps like Zoom App, Skype, and Google Meet getting downloaded more globally.

In South Africa, more and more businesses began evolving sometime back with more and more people working from home and online shops getting popular by the day.

Zimbabwe has been forced to do business differently and it is a good thing.

Smart transacting helps a business concentrate more on growing and improving business than spending time on the road. You can video conference and even demonstrate equipment use live should need be.

Smart or digital business transacting is a practice that has to be maintained as the business now is back to fulltime operations. You do not necessarily need to work from home but the use of emails, live chats, and delivery services saves time and money.

As usual we appreciate your feedback and input. If you would like to contribute please write to us at [info@miningzimbabwe.com](mailto:info@miningzimbabwe.com)

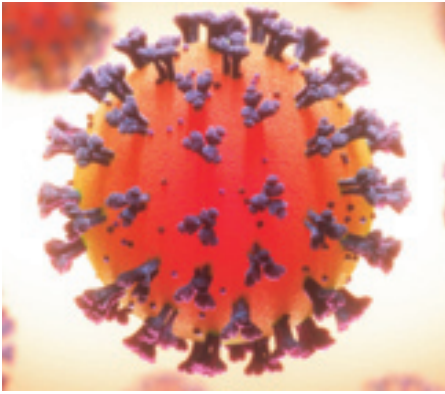
## EDITOR'S NOTE



### Online Awards



# Covid-19 case confirmed in the Pickstone area



***A Covid-19 case has been confirmed in the Pickstone area.***

Mining Zimbabwe followed up on the daily Covid-19 report this morning that stated case number 32 was in the Chegutu area with the Ministry of Health Official Chegutu-head, Dr Nhende.

Dr Nhende confirmed the case was in the Pickstone area and advised members of the public to adhere to the prescribed measures by the Ministry of Health and Child Care. The Ministry of Health and Child Care

reported that the 30-year-old male resident of Chegutu district has no recent history of travel or any known contact with a person with respiratory symptoms. The man was referred for PCR testing after positive on a screening test conducted at his workplace using a rapid Diagnostic test (RTD).

The man is asymptomatic, self-isolating at home with mild disease. Following the Covid-19 diagnosis, the Ministry is now seized with contact tracing being assisted by the patient himself.

The Ministry identified 7 of his contacts and these will be tested for Covid-19 in line with MHCC intensified surveillance strategy.

The Pickstone area is an active mining zone with one of Zimbabwe biggest gold producers Pickstone peerless. The area has a lot of small-scale gold miners.

Zimbabwe is currently responding to the COVID-19 outbreak. The public is, therefore, being encouraged to adopt a number of behaviours that prevent contracting COVID-19.

These preventive behaviours include:

- **Avoid close contact with anyone with a cold or flu-like symptoms**
- **When coughing and sneezing cover mouth and nose with tissue paper or flexed elbow- throw away the tissue immediately and wash hands**
- **Maintain a distance of at least a meter from the next person**
- **Use of Protective clothis at all times in work places.**

## CUSTOMISED CONTAINERS TO MEET YOUR CUSTOMISED NEEDS



56 Martin Drive, Msasa, Harare, Zimbabwe  
P.O. Box AY73, Ambby, Harare, Zimbabwe  
Tel: +263 242 447 748/9  
Cell: +263 718 582 917, +263 782 722 395  
Email: stanford@sbs.co.zw or sales@sbs.co.zw  
[www.sbs.co.zw](http://www.sbs.co.zw)

Containawise from Smart Building Solutions, is happy to customise containers to meet clients' specific needs. We're experts at preparing containers for a range of purposes, from offices to event Spaces, Kitchens And Ablution Blocks. Whether as Clinics, Solar-powered IT Labs, Pop-up Cafés or extra living space, the possibilities for converted containers are endless. Containawise has the capability to convert our popular container products into just about any type of modified unit. Give us a call and let us help you solve your space.

*We bring colour to your life and we turn the ordinary into extra ordinary.*

**CONTAINA**wise



# Lack of synergies between Ministries has Norton houses built on minable gold claims

*Lack of synergies between the Local government and Mines and Mining Development ministry has had some houses in Norton built on top of minable gold claims.*

The Mines Ministry was made aware of the development by Norton Miners association in 2018 after inspection of Mines maps.

According to mine maps, some areas in Galloway, Ngoni Township, Katanga, Knockmalloch estate, and Knowe are built on Minalable gold claims.

We contacted Norton miners Association Mr. Privelage Moyo who said, "There is a case in Norton whereby Udicip through local government was given the land for housing and Ministry of mines had claims, so now the gold is worthlessly buried under houses".

"According to the Ministry of mines map of Norton, more gold claims are shown or marked in areas that already have residential properties. There are areas and claims where new developments were taking over vast tracks of sustainable good and very rich minable land area".

Land use conflict between Ministries leaves a lot to be desired as local government parcels out land for urban expansion while Mines Ministry issue out claims on the same mining land, and on the other hand Ministry of Agriculture also parceling plots.

Last year Mining Zimbabwe was made aware of unprocessed sand which the department of metallurgy confirmed consisted of gold, iron ore 52.33 percent, and red oxide ore with 19.68 percent which



was being used for road construction on the Harare – Bulawayo dualisation project. Issues like these can easily be eradicated by having synergies between town councils, Agriculture and Mines Ministry consultations before any land is given away.

## Proud to be Building Africa for 60 Years



Bell is Africa's very own global equipment supplier. With support from our strategic partners we deliver a full range of premium machines well suited to a variety of industries and applications. Whether it's mining, general and bulk earthworks, construction, roads and rehabilitation or waste management, our machines are all built tough for our harsh environment and are fully supported by Africa's most comprehensive network of people dedicated to your success.

**Bell Equipment - a proudly African company that's committed to helping businesses to realise Africa's potential.**

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

Contact Keith Bydowell  
E-mail: [keithb@bell.co.za](mailto:keithb@bell.co.za)  
Tel: +263 (0) 4 447374/80  
Cell: +263 772 215110/712 200896

**Strong Reliable Machines  
Strong Reliable Support**

**BELL**

# CLASSIFIEDS

## FOR ONLY ZWL200

Expose your products to thousands in the Zimbabwe Mining Industry



**Call/WhatsApp:** 077 552 3000 | **Email:** info@miningzimbabwe.com



**AfriSteel Construction**  
TRADING AS  
**Afristeel Mining and  
Construction Supplies**

**Trusted  
Quality**  
in Mining Equipment  
and Precast Concrete  
Products









- ▶ Compressors
- ▶ Hammer Mills
- ▶ Engines and Spares
- ▶ Beaters






Phone: 0783083517/0715703489

91B Mutare Rd Msasa

Concrete Sinks◀  
Concrete Pillars◀  
Precast Walling◀  
Paving Slabs◀

[afristeelconstruction@gmail.com](mailto:afristeelconstruction@gmail.com)

[@afristeelconstruction](https://www.facebook.com/afristeelconstruction)



## MINING CHEMICALS • OIL LUBRICANTS



**BLACKBOX IS A LEADING CHEMICAL SUPPLIER OF QUALITY INTERNATIONAL BRANDS TO THE MINING INDUSTRY**



Leading Brands



Qualified Metallurgists



Reliable Logistics



World Class Service

### PRODUCTS IN STOCK

- Sodium Cyanide
- Activated Carbon
- Caustic Soda
- Hydrated Lime
- Assay Litharge
- Hydrogen Peroxide
- Soda Ash
- Ferrous Sulphate
- Hydrochloric Acid
- Nitric Acid
- Sulphuric Acid
- Borax
- Commodity water treatment chemicals (Aluminium Sulphate & Calcium Hypochlorite)
- Specialist water treatment agents, resin's and membranes



WE ARE THE SOLE DISTRIBUTOR OF TRON LUBRICANTS AND WE CAN SUPPLY ALL OF YOUR OIL AND LUBRICANTS REQUIREMENTS

*Approved official distributor of*



**VISIT US**  
12 Highfield Road,  
Southerton, Harare

**MANAGER**  
Darren Cell: +263 772 405 199  
darren.bismark@blackbox.co.zw

**MINING CHEMICALS**  
Aggrey Cell: +263 778 300 810  
Simba Cell: +263 786 597 973

**LUBRICANTS**  
Daniel +263 772 914 859

**Visit: [www.blackbox.co.zw](http://www.blackbox.co.zw) | Email: [enquiries@blackbox.co.zw](mailto:enquiries@blackbox.co.zw)**



# Chrome miners to form an association



A group of Chrome miners has resolved to form a Chrome miners association as a way of eliminating challenges they face in the chrome business. Unlike gold, the chrome market has few buyers making it susceptible to predatory buyers who purchase chrome at unreasonably low prices and has some miners losing out due. Mining Zimbabwe spoke to the brains behind the association, Mr Shelton Lucas.

Below is the transcript of the conversation with Mr. Lucas

"I am a seasoned miner with a bias towards chrome and colored quartz EG Amethyst. I got a stereotype ideology of thinking outside the box of my limitations by so doing I created groups to effectively share information on the other opportunities that need to be tapped instead of having these traditional gold rushes' said Lucas

**MZ: Why do you feel a chrome miners association should be formed**

**SL:** Chrome miners should form an association because there are factors affecting chrome miners that might be needing some reflex actions and tend to delay because of the sequential accessibility to the Paramount decision-makers instead of directly by so doing saving time. For example chrome is volatile in prices as compared to some other metals it once peaked \$250/t in 2016 and now it's around \$40/t but during the peak, no miner in Zimbabwe had a cut of the cake because of the delays caused by MMCZ through Applebridge and RBZ.

**MZ: How is the association going to benefit members**

**SL:** The association is going to benefit members through lobbying to the government for horizontal forward integrations. For example, the government can construct chrome smelters in Guruve, Mashava,

Ngezi by so doing miners will be hedged from price volatility, poor road network mileage will be reduced and miners can also be having a solidified approach to syndication in terms of equipment hire and marketing.

The association can be able to negotiate a level playing field with other stakeholders so that we can have a standard price of chrome upper dyke lower dyke and off dyke.

It helps lobby for fair disbursement of funds from buyers to mines that are channeled from MMCZ to miners through Applebridge that it benefits all miners not only those that have connections with the people at Applebridge to avoid the cases that once happened in 2017 where some of the miners who were paid didn't deliver and some unsuspecting miners consolidated the tonnage that was due to the buyers but were never paid.

The association will also advocate for buyers to open different chrome buying centres near the mines as in the same scenario with what Fidelity does to gold.

The association will also ring-fence the miners from chrome smelting companies that are foreign-owned because they sabotage the miners. Due to them owning the value chain that would not allow symbiosis by so doing the miner loses.

**MZ: How is the executive going to be formed**

The executive is going to be formed through elections from the chrome miners and investors forum. We are a group of 150 miners and we have a Whatsapp group created and administered by myself. It is not a group that was formed with a primary objective of forming an association but it was formed in July 2019 and due to the common challenges we were prompted to start an association with the thumbs up of all the active members numbering up to 150.

**MZ: We have read and seen association conflicts going to court with some not wanting to step down from their positions will you consider that when forming your association**

This association is not going to be for personal aggrandizement there will not be personal individual benefits but for all miners and they will be a clear constitution to cater for that so the guidelines and principles will be there to avoid such conflicts

# Chrome miners to form an association

**MZ: Why a new one when there are existing ones like the ZMF for example?**

We want a new one which is not under an umbrella group which has a specific mandate not to be represented by some other miners who are mining some other minerals other than chrome in terms of priority representation of specific fields then chrome lags behind.

**What are you going to do differently from other associations?**

We are going to be different from some of the organisations because we are going to act transparently and we are people-oriented establishment moved by the plight of miners who have been affected or almost neglected by red tape.

**A big challenge in the Mining Industry is miners are usually given tributaries and we once ran an article whereby a couple mined chrome on claims given to them by a chrome company only for someone to come claim they are stealing & up to today no one has come to their aid or even responded including Mines Ministry how will you help alleviate that?**

The miners that are on tributaries with specific respect to the conflict that was experienced because of the communication breakdown between the allocation of ceded mines by the big companies. For instance, some miners were on tributaries and those mines were ceded to new miners and ownership changed hands without prior notices that the mines are no longer owned by

those big companies to the extent that the new owner will come and claim everything and in prospective tributaries. There is a need for the proper paperwork at the lawyers and notifying the ministry also. Alleviation of these disputes can also be done at the association level before it spills in court since both parties will be affiliated and we will find the fairest way of handling disputes.

**Chrome pricing is also a challenge in Zimbabwe your comments?**

Chrome pricing is a challenge. It is volatile, most miners sell below the MMCZ stipulated prices because they do not get the chances of having the buyers coming directly to them. The smelting companies have their own mines they need miners as auxiliary suppliers, not main suppliers. By so doing miners are arm-twisted since there won't be any symbiosis. This can be overcome by value addition through smelting.

**Word to those who will want to join your organisation and the qualifying criteria?**

Those who want to join organisation should be chrome miners with certificates, chrome mining companies, and those prospective chrome miners.

The members should also know that this is not a money-spinning association its direct mandate is to represent miners for the improvement of the chrome mining industry and the entire mining industry as a whole so don't join expecting those get rich schemes.





## SUBMERSIBLE, CENTRIFUGAL AND WATER FEATURE PUMPS, DOMESTIC, BULK & PREPAID WATER METERS

### DEWATERING PUMPS

#### DUMPER Pump line



#### DML-DMLF



#### DW-DW VOX



#### SLURRY PUMPS

**Submersible Heavy Duty, Super Duty and High Head Heavy Duty agitator pumps**  
**MAIN FEATURES**



All Pumps have standard high efficiency agitator to lift settled solids.

- High abrasion resistance with high chrome wear parts.
- Low rotation speed to reduce wear effect.
- Able to handle up to 70% solids by weight

#### SLURRY PUMPS

**Submersible heavy-duty agitator pumps. Hydraulically driven with variable RPM.**



#### MAIN FEATURES:

All Pumps have standard high efficiency agitator to lift settled solids.

- High abrasion resistance with high chrome wear parts.
- Low rotation speed to reduce wear effect.
- Able to handle up to 70% solids by weight.
- Easy installation on the boom of hydraulic excavators.

#### CENTRIFUGAL PUMPS

**(SINGLE STAGE/MULTISTAGE/VERTICAL/HORIZONTAL)**



#### TECHNICAL FEATURES

- Available with various special sealing systems
- Impeller hydraulically balanced to prevent axial thrusts against the seal, it achieves 80% efficiency.
- Made of stainless steel AISI 304
- Back pull-out design: it allows removal of the motor, the coupling, the cantilever support and the impeller without compromising the housing of the pump body or removing the pipes

Water-Tight Engineering(Pvt) Ltd, is a wholly owned Zimbabwean company based in Bulawayo & Harare. We are a leading supplier of submersible, centrifugal and water feature pumps as well as domestic, bulk and prepaid water meters. Our esteemed Italian brand of EBARA has decades of triumph in Europe, Asia, Middle East and Africa. Our products are applied in sectors such as Mining, Manufacturing, Construction, Municipality service delivery such as waste water and water supply.

**Tel: +263 2922 64225 or +263 242 754142 | Website: [www.watertightengineering.co.zw](http://www.watertightengineering.co.zw)**



# As a Potential Covid-19 Induced Recession Looms lets GO for Gold

By: Daniel Nhepera – Minerals Economics, Economic Research Unit

Mining analysts are predicting a strong 2020 for Gold prices. An ostensible Covid-19 prompted global recession is set to result in investors exchanging cash deposits for physical gold as a haven against a likely depreciation of the United States dollar.

Global prices of refined gold have firmed by about 13.7% since the turn of the year, inflating from US\$49.01 per gram on 2 January 2020 to a peak of US\$55.82 per gram around the end of April 2020, according to the London Bullion Market Association. This was punctuated by a particular acceleration in prices in the 30 days to the first week of May 2020, where prices shot up by about 5.39%. Taking a cue from the 2008 financial crisis, it is anticipated that the restoration of normalcy for mineral markets, in the wake of the Covid-19 pandemic, may take as many as 24 months. In this time Gold is expected to outperform all other minerals on the global market, thus presenting an opportunity for Zimbabwe to ramp up efforts in output and enjoy golden returns through the down-times.

Global markets have endured losses over the past three months on account of supply disruptions caused by the suspension of industries in China, as well as the restricted access or closing down of borders by countries worldwide. This was exacerbated by the fact that China manufactures up to one-third of world's commodities and industrial implements, while also boasting of the world's largest industry for the conversion of metals (Copper, Chrome and Platinum Group of Metals) and numerous Rare Earth Elements which form essential components of many hi-tech products.

This has had a knock-on effect on the economies of industrialised countries like the United States of America, who, while also battling the ravaging health effects of the Corona Virus, have had to deal with delays in the supply of essential elements from China, such as stainless steel and various technological components, to keep their own industries alive.

“An ostensible Covid-19 prompted global recession is set to result in investors exchanging cash deposits for physical gold”





There is, therefore, an anticipated recession on the horizon, as evidenced by the reactive measures being taken by the USA's Federal Reserve.

In late March 2020, the Federal Reserve announced the release of a US\$1.5 trillion stimulus package which it described as "short term loans to the banks to address unusual disruptions in treasury financing markets as a result of the Covid-19 outbreak." Pursuantly, in the same month, the Federal Reserve cut its benchmark interest rate to near zero, in an action which is anticipated to permeate through the banks to the banking public, availing low-interest loans to US companies, thereby cushioning them against the effects of the pandemic. Commendably, Zimbabwe has followed the same internationally prescribed recession-proofing model, announcing a ZW\$18 billion Economic Rescue Package for distressed companies, as well as trimming the RBZ lending rate from 25 percent to 15 percent annum.

The positions taken by the USA Federal Reserve and the Government of Zimbabwe are synonymous with authorities anticipating a recession and implementing necessary defenses to avoid the recession from degenerating into a depression. The potential increase in money supply in the USA, on account of the stimulus package and the cheap loans, compounded by the possible printing of money to stimulate demand, may trigger the deflation of the United States dollar. This will bring about an investor exodus from the currency to the customary investor havens, in the form of Gold and Real Estate, as has already begun.

In lieu of this, there is room for Government, through the Ministry of

*There is room for Government, through the Ministry of Mines and Mining Development, to identify the potential returns inert within the Gold price trend, and position itself ideally, by means of appropriate policies, to harness*



Mines and Mining Development, to identify the potential returns inert within the Gold price trend, and position itself ideally, by means of appropriate policies, to harness the gains. This is particularly so given the likelihood of a converse fall in the prices of Base Minerals, Precious Stones, and Semi-Precious Stones, whose prices are, for the most part, associated with the levels of industrial activity and relative per capita level income in world economies.

Cognisant of the short term nature of the Gold price rally, which is forecast to peak at about US\$58 per gram in 2021, measures instilled by Government to ramp up Gold output would have to be of immediate impact. This thereby points to targeting of the small scale gold sector, whose activities are less capital intensive and therefore require less long-lead investments; but whose work efforts notably contribute approximately 60% of Zimbabwe's total gold output. The government has set aside ZW\$1 billion from the Economic Rescue Package for the mining sector, with a healthy portion of the fund expected to benefit the small scale sector. However, despite the financial support, there is still consensus within mining circles that gold submissions to Fidelity Printers and Refiners (27.6 tonnes in 2019) may only represent about 50% of the gold output being achieved from the country.

# As a Potential Covid-19 Induced Recession Looms let's go for gold

It is therefore apparent that the first port of call for Government would have to be the plugging of gold leakages. If achieved, this alone could double gold submissions to the country's sole gold

*“Sentiments from the miners are that for the Government to achieve this it is imperative to revisit the Reserve Bank of Zimbabwe foreign currency retention policy”*

buying and marketing agency, without necessarily increasing mining activity from current levels.

Sentiments from the miners are that for the Government to achieve this it is imperative to revisit the Reserve Bank of Zimbabwe foreign currency retention policy. This was identified as a significant contributing factor to the smuggling of Gold out of the country. RBZ currently retains 45% of the foreign currency earned by miners from the export of Gold, replacing it with an equal amount in Real Time Gross Settlement, calculated at the Inter-Bank rate. This, however, submits miners to foreign exchange losses on account of the disparity in exchange rates between the RBZ and the parallel foreign

exchange market. At current rates of approximately ZW\$25: US\$1 at the Inter-Bank market, and ZW\$50: US\$1 at the parallel market, and a gold price of about US\$52 per gram, a miner stands to lose about ZWL\$585 for every gram of Gold sold to FPR, as opposed to going the illegal Gold buyers route where they receive full payment in hard currency. It is, therefore, a no-brainer as to why a miner, keen extract all possible value from his hard-earned Gold, would opt for the risky illegal route over the Government regulated one.

The RBZ, therefore, needs to assess the gains made from maintaining the foreign currency retention policy at the status quo, against the potential losses being incurred through the smuggling of gold out of Zimbabwe to the benefit of other countries. With pleasant times for Gold prices potentially on the horizon, the Government may need to consider easing from its hardline stance on the foreign currency retention policy and parleying with the miners to the end of finding mutually amenable ground and plugging Gold leakages.

This is necessary if the Government is to allow Zimbabwe an opportunity to benefit fully from its Gold resource in the times ahead.





# Post Covid-19, resuscitating Zimbabwe's economy means reforming its mining policies



*Methembeni Moyo*

The Covid-19 crisis is wreaking havoc worldwide, as months of shut-down severely affect both supply and demand sides of economies.

By Methembeni Moyo

According to a Washington Post article, the world's biggest economy, the United States lost 20.5 million jobs in April with the unemployment rate now at a staggering 14.7%, the worst since the Great Depression era. South Africa, Zimbabwe's most important trading partner, and Africa's biggest economy is forecasting that it could contract by more than 6% this year. If the Covid-19 crisis can have such dire effects on developed economies, one can only wonder the effect it has had and will continue having on Zimbabwe's already fragile economy.

Many countries are looking into different fiscal strategies and policies to mitigate the economic effects of the Covid-19 crisis. South Africa for example recently announced a R500 billion, (about US\$27 billion) economic support package to combat the negative effects of COVID-19 on its economy. Some of the economic support package will be raised from its internal state coffers while other funds will be sourced from international finance institutions such as the World Bank and the International Monetary Fund, (IMF). Zimbabwe, on the other hand, does not have the fiscal policy flexibility, borrowing power nor the balance sheet to implement such measures. In the context of such economic devastation and the need for extensive economic stimulation and protection, what can Zimbabwe do to resuscitate its economy post-Covid-19?

## Mining policy reform - a low hanging fruit

Mining is an essential foreign currency earner for Zimbabwe. It is no surprise that mining companies were allowed to operate even during the strict lockdown. Mining revenue is absolutely vital to Zimbabwe's economy. However, the mining sector is grossly underinvested.

Zimbabwe's geological potential is world-renowned. It has a variety of base metals, precious metals, precious stones, and recently, even potential for oil and gas. In addition, Zimbabwe's internal security is stable in comparison to other resource-rich nations. The Southern African country has a highly educated workforce that is not unionised and hungry to work. Zimbabwe has a dedicated mining tertiary institution, the Zimbabwe School of Mines, and other universities that churn out skilled graduates yearly. Furthermore, Zimbabwe is serviced by good infrastructure, and markets are accessible by road through ports in South Africa and Mozambique. Yet Zimbabwe's most important industry perpetually underperforms. Zimbabwe's mining laws and investment policies are just not attractive, and one might argue they are a deterrent to mining investment. Drastically reforming Zimbabwe's mining policy, therefore, is the low hanging fruit that must be plucked to resuscitate Zimbabwe's devastated economy post-Covid-19. If Zimbabwe could emphatically and sincerely reform its mining laws, mining investors would flock to Zimbabwe. A mining boom could be on the horizon, and world-class mining operations such as Unki, Zimplats, and Mimosa would be the norm and not the exception. This leads us to the questions of what are the challenges faced and the reforms needed?

## Challenges and required reforms

The policy challenges facing Zimbabwe's mining industry are numerous. The most topical are exchange control policies. The uncertainty of exchange control laws, the requirement to sell some foreign currency to the central bank, and the difficulties in repatriating foreign currency earnings deter large scale mining investment and even to an extent local medium and small scale mining investment. Zimbabwe's mining laws are balkanised and outdated. We do not have a modern mining code that brings together under a single code the most important aspects of mining that must be covered by a mining code such as exchange control, royalties, local content and procurement requirements, export, beneficiation, and fiscal incentives.

# Post Covid-19, resuscitating Zimbabwe's economy means reforming its mining policies

The most significant challenge is policy uncertainty. Mining projects have a long gestation. Mining projects may take up to as long as 10 to 20 years to develop from exploration to discovery and full production. Mining investors accordingly need to be assured that the fiscal laws that govern the mining project will remain stable for most of the life of mine otherwise it would be impossible to attract the type of capital required to develop large operations. Accordingly, Zimbabwe needs a modern mining code, that gives investors long-term security and fiscal certainty.

## The Zimbabwe Investment Development Agency Act - a step in the right direction

The recently enacted Zimbabwe Development Agency Act, (ZIDA Act) which incorporates under a single umbrella the Zimbabwe Special Economic Zones Authority, the Zimbabwe Investment Authority and the Joint Ventures Unit which regulates PPPs, is certainly a step in the right direction. Although specific regulations to the ZIDA Act have yet to be promulgated, the ZIDA Act provides some important investor protections and incentives, such as

protection from arbitrary expropriation, the facilitation of the ease of doing business and the applicability of some fiscal and non-fiscal investor incentives to some projects. The ZIDA Act is evidence that the government is capable of crafting much needed modern investor-friendly laws and should apply the processes, principles, and political will that went into the crafting of the ZIDA Act to the much-needed reform of Zimbabwe's mining laws.

## Conclusion

Despite its much-touted mineral prowess, Zimbabwe's mining industry remains somewhat dormant. Future prospects are not promising either. The momentum gained from the coming of a new administration late in 2017, the repeal of the indigenisation laws (51% local ownership), and the promise of "Zimbabwe is open for business mantra" has waned. Mining investors have begun to look elsewhere for mining opportunities, in places such as West Africa where modern mining codes and competitive investment policies are fuelling a mining boom. Zimbabwe policymakers have to understand that mining investors have a choice if pol-

icies are not conducive, investors will go where policies make sense. Zimbabwe's rocks are phenomenal yet its mining laws do not match its immense geological potential. In a post-Covid-19 world, no country can afford to continue in business as usual mode. Brave and drastic measures will be required to revive economies devastated by the pandemic. Zimbabwe does not have the financial capacity to stimulate economic growth nor can it borrow more money while it is struggling with the debts it already has. Zimbabwe does, however, have great mining potential. All that is needed is emphatic policy reform. In the short-term, the liberalisation and stabilisation of exchange control laws could stop the bleeding. In the mid, to long-term, a modern overhaul of Zimbabwe's mining laws could be unavoidable. Zimbabwe's economic fortunes are inextricably linked to its mining industry. Reforming the mining industry will be quintessential to resuscitating the economy post-Covid-19.

## About the Author:

*Mthembeni Moyo is a lawyer focussed on facilitating investment into Zimbabwe, particularly in mining. He is based in Johannesburg and can be reached at [mthembeni.moyo@lnpinc.co.za](mailto:mthembeni.moyo@lnpinc.co.za)*





# Interview: Keith Mandisodza - Geotechnical Engineer



**Keith Mandisodza**

This week on Inside Mining Zimbabwe I had the privilege of interviewing not only someone with a similar name as mine but someone who is making Zimbabwe proud with the outstanding work he has done back home, on the continent and now abroad.

**By Keith Sungiso**

**Keith Mandisodza** has years of multi-disciplinary experience in mining and civil geotechnics and mine engineering throughout Australia, Southern Africa, South America and Madagascar to his role as Principal Geotechnical Engineer for Cartledge Mining and Geotechnics. Keith's proven expertise is in delivering operational support, studies, technical reviews and audits, operational improvement through practical and innovative solutions, open cut and underground mine design and tailings monitoring and management. Previously, Keith has worked as a site operational geotechnical engineer and rock mechanics engineer at different levels, both underground and open cut, in Zimbabwe, Zambia, Madagascar, Suriname and Australia.

*"A geotechnical engineer is an integral part of the mine technical services, which is usually a department that is responsible for strategic mine planning and effective technical guidance of mining operations".*

**KS: What is the importance of a mine geotechnical Engineer, how does continuous geotechnical data collection and analysis of importance to mines in Zimbabwe?**

**KM** A geotechnical engineer is an integral part of the mine technical services, which is usually a department that is responsible for strategic mine planning and effective technical guidance of mining

operations. The main role of geotechnical engineers in this integrated functional group is, to provide timely advice to management and operational teams regarding rock or soil mass responses to excavation; to provide ground engineering support to achieve mine production targets; and to identify opportunities to improve geotechnical aspects of the mine design. These multi-faceted functional roles require enough data collection to be able to provide adequate geotechnical recommendations as per the code of ethics and engineering judgement. Continued data collection allows for improvements in supporting models that can always be inferred for guidance when making important decisions for operations. Hence, allowing for more optimisation and effective implementation of risk management instruments to prevent and mitigate against unwanted events through critical controls.

**KS: How does geotechnical data collection of significance in mine design?**

**KM:** The cornerstone of any practical geotechnical analysis and design work is the database upon which the definition of input material properties is defined. Even the most sophisticated analysis can become a meaningless exercise if the geotechnical information upon which it is based is inadequate or inaccurate. Hence, data collection plays a significant part in design optimisation.

**KS: Geotechnical Engineers rose to popularity around 2000s, how have they done the world over to reduce mine accident and to improve efficiency?**

**KM:** Point of correction, geotechnical engineers have been around since the 1920s. In Zimbabwe, because we didn't have geotechnical engineering courses at universities (and still don't), it has taken long to have such a career path for many, because it is not a commonly talked about field to be considered as a career path at schools and universities. Many of us had to go through other alternative courses to practice as geotechnical engineers. Back in the day geotechnical engineers were "godfathered" in the industry after a geology degree, mining degree, or a civil engineering degree. Some had to pursue a postgraduate degree in geotechnical engineering to practice as a geotechnical engineer. However, this has since changed through the years and geotechnical engineering undergraduate degrees are now being offered at universities worldwide, and still to be introduced at Zimbabwean universities. My geotechnical career path has been through a geology degree, which I completed at the University of Zimbabwe, and then pursued a postgraduate degree in Geotechnics, in the United States.

# Interview: Keith Mandisodza - Geotechnical Engineer

Regarding the second part of the question, I may not be able to quantitatively give a statistical representation of how geotechnical engineers have done to reduce mine accidents but, since the turn of the 20th century, there is now a better understanding of the geological setup of most work environments which results in calculated risk frameworks formulation based on the knowledge accumulation, to manage geotechnical risks subsequently improving the general health, safety and environment of respective work areas. Since the turn of the decade, global technological advancements have played a critical role in the improved management of geotechnical hazards through more advanced approaches to numerically model the variability and complex geological conditions which play a critical role in geotechnical designs.

**KS: How important is risk management to geotechnical engineers, can the Zimbabwe mining sector benefit from geotechnical Engineering, and to what extent?**

Risk management involves the coordination of activities to direct and control an organisation with regard to risk. In the mining (and/or civil) sector(s), geotechnical risks are often associated with an operational function to health and safety considerations as well as economic considerations for projects. It is fundamental, as geotechnical engineers, to have risk-management skills, validated through detailed assessments of geotechnical risks to projects.

**KS The use of modern technology in geotechnical Engineering is of importance, is the country ready to adapt to an updated mine planning software because the world is heading towards 5G network, yet we are yet to use 4G?**

KM: Yes. In fact, most mines will probably have more advanced network systems relative to most areas due to the requirement of such robust network systems, which enables operations and processing efficiency. However, regardless of the mining network requirements, the government should be setting up strategic infrastructure enabling the country to embrace the technology advancement and to harness its unlimited potential to systems improvements in general.

**KS: What is the significance of developing and implementing a site-specific Ground Control Management Plan in geotechnical engineering, how does modern mining gain from this? Can Small scale miners try to implement this at a small scale of course?**



*Keith Mandisodza*

KM: A geotechnical Ground Control Management Plan or GCMP, as it is known in the industry, is the main governing document for risk management of geotechnical critical controls. It is the main operational document that outlines; the regulatory framework for practice; site physical location setting and controlling factors; mine design and operation process; legal appointments, accountabilities and responsibilities of all stakeholders; risk profiling and risk management of operations; geotechnical processes considered to manage risks; mine design verification processes; quality control and quality assessments (QAQC) processes; review and audit processes. It is based on an observational method criterion where systems can be established, implemented, monitored, reviewed, and reused in that cyclic fashion.

**KS: How feasible is the statement, "to seek continuous improvement of the initial mine design to safety increase mine value and derisk long term production profile"?**

KM: During early stages of mine designing and project development, data availability is limited meaning, the reliability of the design models is low. Thus, there is a need for continuous data collection and processing to feed into these models and improve reliability. In so doing, improved designs in terms of safety and economic mine value can be implemented, reducing associated safety and productivity risks.

**KS: What is the impact of detailed geotechnical design on pit mining economics?**

In most cases, the value of open-pit mining is driven by the ore to waste ratio, which subsequently determines the strip ratio. The lower the strip ratio, the higher the return for the operation and vice-versa. Slope designing through the determination of the optimum slope angle that meets both economic and safety criteria



# Interview: Keith Mandisodza - Geotechnical Engineer

*Continued from pg 18*

is a critical function of the geotechnical engineers. This process is achieved through the collection of relevant site geological parameters and application of rock or soil mechanics principles. It is this critical function of the geotechnical engineers to provide design parameters that produce the most value for the excavation that is reflected through the mining economics.

## KS: How does detailed geotechnical design of importance on an underground mine?

In underground operations, optimisation of the mine infrastructure and mining method is a key metric that determines the ore extraction per meter development. Optimisation of the ground support demands relative to excavation profiles, rock mass parameters, geological structure, stress and seismicity is also critical. These importance metrics are determined by geotechnical engineers. A good design that considers all the relevant input parameters in the feasibility study of a mine site will also determine the economic values of that mine operations. Thus, geotechnical engineers play a major role in the early stages of mine design and planning.

## KS: How does a geotechnical Engineer solve the impacts of geological factors on a mine, both underground and open-pit?

A good geotechnical engineer should have a sound geological background, in both theoretical and practical aspects, to be able to deal with most issues that affect mine operations. Considering that most mines are located in geologically complex areas, it is pertinent for the geotechnical engineer to familiarise themselves with the underlying geological controls that led to the formation of the orebody on a regional and local scale, and be able to determine optimised

designs and ground support requirements. Failure to preconceive the importance of underlying geological conditions lead to under-designing or over-designing, leading to safety and economic connotations.

## KS: If you meet the Mines Minister Hon Winston Chitando what five things will you advise him on Zim mining.

Through my diverse experiences in different continents, mining methods and mining governance systems, the five most important things I can advise the mines minister are,

- Implementation of effective policies that allow for investors to invest in Zimbabwe
- Attractive mining policies that bring employment opportunities to the locals and improve the economic situation of the country
- Belief in our own people, especially those qualified and experienced in the field, and give them relevant opportunity to implement change through embracing technology and innovation
- Setup of transparent systems that account for mineral exploitation and trade. Zimbabwe is known to be a mineral wealth country, yet we struggle to account for this mineral wealth in our economic systems and policies, this must change.
- Put tighter legal frameworks to streamline the exploitation of minerals rights systematically and thus, filter away all illegal avenues through which accountability is failing currently and replace these with more robust and dynamic systems that support accountability

*Keith Mandisodza, when he was Senior Geotechnical Engineer at Iamgold, Rosebel Gold Mines N.V. reviewing IBIS-Rover mobile radar for broad area slope monitoring!*



## KS: How can mine geotechnical Engineers be incorporated into the small-scale mining sector?

**KM:** Considering the hazard profile that is associated with small-scale mining, the incorporation of geotechnical engineers is critically essential and will need to be considered by relevant authorities. This will enable the effective management of risks associated with small-scale mining. However, a caveat with such a proposal for mining to proceed with intent to risk abate is the requirement for adequate ground reinforcement or support that will add unwelcome cost to the “mining process”, which might be unfavourable for many small-scale miners.

## KS: What can Zimbabwe do differently to attract foreign investment?

I think to reiterate what I have highlighted above, setting up systems that attract investors will be a key factor in bringing back that lucrative attraction to the investor community. I have been in situations where companies have been looking for countries to invest and expand their respective portfolios and it's quite unfortunate that they don't find most African countries meeting all the key criteria that often provides that business attractiveness, mainly due to a bad reputation that has been ingrained in the way most African countries do business in general. Now, because the grain has been forged and set in that specific orientation going against the grain will result in those interested companies getting some “business splinters”, which many are not comfortable with. Hence, for Zimbabwe to be different from this outlook, it has to set up systems that counteract positively the current perception set by many African countries. This won't be an easy feat but very achievable, and will definitely set the country as a beacon of hope for many to follow.



*Keith Mandisodza*

Despite the volatility associated with doing business in the African continent, that many investors are not willing to take aboard, I do feel that the future of the mining industry is in Africa. Thus, in light of this perspective, it's only prudent for a country to position itself strategically to be able to benefit, and take advantage of its very own potential.

## KS: What motivated you to move from geology to Geotech?

In my opinion, and I guess in many others too, geology sets a solid foundation for one to be a good geotechnical engineer. Considering that, when I started studying geology, physics, and mathematics at the University of Zimbabwe, I didn't know what I was getting myself into. But, because I had a strong passion to understand how things work, I grew into the science and it also grew into me. Graduating with a degree in geology and physics opened an opportunity for me to work as a geologist at Shabanie mine, and it was at this mine that I was moulded into first, a rock mechanics

geologist, and later a rock mechanics engineer. It took me five years to transition from underground mining, practicing as a rock mechanics engineer, to open-pit mining, when I moved to Zambia, to become a geotechnical engineer. I don't think there was any motivation to switch from being a geologist to geotechnical engineer, I am still an ardent geologist at heart and will always be. I guess for me, I evolved or transitioned into geotechnical engineering. However, the only difference I can pick between the two is, geology is a science and geotechnical engineering is a specialty branch of civil engineering that deals with earth materials and is primarily concerned with defining, understanding, and utilising through design the engineering characteristics and properties of these earth materials. On the other hand, geology is an observationally-based science employing not only the myriad of geologic principles but mathematics, chemistry, physics, and biology as tools to characterize the geologic conditions, so they are made for each other, hand-in-glove I would say.



# Interview: Keith Mandisodza - Geotechnical Engineer

**KS: Do you ever see yourself working in the Zim mining industry?**

**KM:** Absolutely! Though, there are conditions to that emphatic assertion.

First, my family has to be willing to relocate from down under, something that has sort of become a norm for us, having relocated to many continents and countries alike. Also, the reason for relocation has to outweigh all the other counteracting assumptions that are currently there for us as a family. But, if there is one reason I would relocate all things being fair, it will be to bring back home the knowledge I have accumulated in foreign lands, to mentor others, and use that knowledge for the betterment of Zimbabwe.

Now in saying that, there are a lot of dots that have to line up from an economic perspective in Zimbabwe, as well as policies and how this knowledge can be harnessed and effectively channeled to improve the systems. Many have already trodden that path before me and the results don't convince me yet, so we will see.

**KS: Word to a Tsitsi who is currently studying to be a Geotech like you**

It's good to see young girls not only pursue STEM subjects but excel. I am an avid supporter of the girl child and would like Tsitsi to know that she has chosen a great career path.

It's also good to see that you can now get career guidance in the geotechnical space, which many of us never had the chance, and

had to learn along the way. Continue learning more and research more about the diversity of geotechnical engineering. Keep abreast with technological advancement, as it will continue to play a significant role in geotechnical engineering space. Get a mentor to guide you on which branch of geotechnical engineering to take, as there are many. If you decide to follow the mining geotechnics, that will be a great choice, though it will come with a lot of challenges, many of which are learning curves both in your career and life in general. The important thing is to stay true to your passion!

**Family life (wife kids)**

Married to a lovely, childhood sweetheart and we have blessed with three adorable girls.

**Besides work what do you enjoy doing in your spare time**

Outside work, I enjoy spending time with family and travelling the world. I enjoy watching football especially when United play. I also play soccer with fellow Zimbos in the league in Brisbane. I used to play cricket during my school days but now I enjoy watching it.

Outside sport, I enjoy a good read on topics ranging from leadership to science and technology. I have also recently started wine and whiskey collecting, which is quite interesting, especially finding those vintage ones.

 **DRC MINING  
WEEK** EXPO & CONFERENCE

**DIGITAL EVENT**

**17 - 19 JUNE 2020**

PROGRAMME AVAILABLE AT  
[WWW.DRCMININGWEEK.COM/AGENDA2](http://WWW.DRCMININGWEEK.COM/AGENDA2)

> REGISTER TODAY <

# ADVERTISE

Your products and services

# to the right

# Audience

No need to guess if your product reached the intended audience



Call/ WhatsApp: 08644 276 585 or 0772 701 730 | [www.miningzimbabwe.com](http://www.miningzimbabwe.com)



# 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.

# 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



# CLASSIFIEDS...

 <b>Timella Mining Consultancy</b> Between CABS and CBZ up stairs, Kadoma	Mining and Technical Services	+263 8644 100 505 +263 77 265 1796 timellakd@gmail.com
<b>Water-tight</b> ZIMOCO Pavilion, ZITF, Bulawayo	<i>submersible, centrifugal and water feature pumps, domestic, bulk &amp; prepaid water meters</i>	Tel: 0718 428 120
<b>Nyaradzo Life Assurance</b> Sabi House 18 Park Street, Harare	Funeral Assurance	Tel: +263-242-796694-7
<b>Kulu Mining</b> Building 1, Prism Business Park, Ruby Close Fourways, Johannesburg 2055	Mining and Civil Engineering	Tel: JHN(+27) 11 367 0603
<b>Curechem</b> 1 Robert Drive, Msasa Harare Zimbabwe	Mining and Agriculture Chemicals	Tel: 0242 486461
<b>J &amp; P Security</b> 17 Water Hill Avenue, Eastlea Harare	Security	Tel: 0242 764 314
<b>R Davis and Co</b> 12 Boshoff Drive, Graniteside, Harare	Civil Contract, Earthmoving, Mining	Tel: 0242 770474
<b>Zimoco</b> Shop 111 Sam Levy Village, Borrowdale	Vehicle	Tel: 0242 885 748
<b>CFAO</b> 58a Golden Stairs, Mt Pleasant, Harare	Vehicles	Tel: 0242 369 030
<b>Natural Air</b> Unit 1 Loreley Cres, Msasa, Harare	Air Condition	Tel: 0242 446 838
<b>G &amp; T Scales</b> 204 Robert Mugabe Road Eastlea, Harare	Scales	Tel: 0242 498 884
<b>Harare Quarry</b> Crn Dieppe and Airport road, Harare	Quarry Plant	Tel: 08644 268 275
<b>Viking Hardware</b> 15 Grantham road, Bulawayo	Mining Equipment	Tel: 029 227 2912
<b>Global BP Projects</b> 8th floor Joina City, Harare	Motortronics	Tel: 0718 942 942
NMB Bank	Banking	Tel: 0242 759 651
<b>Speed Link cargo</b> 114 Borgward Msasa	Logistics	Tel: 0242 487881
<b>STC Chemicals</b> 23 Bishop Gaul Ave, Belvedere, Harare	Mining Chemicals	Tel: +263 774 004 714
<b>Boltgas</b> 58a Steven Drive Msasa, Harare	Plant Maintainance and Equipment Hire	Tel: 0242 487 113
<b>Cobtrade Investments</b>	Eco Degrease and Separation	Tel: 0242 790234
<b>Mirgod Enterprises</b> South Africa	Mining, Industrial Equipment and Accessories	Tel: +27 608 209 133
<b>Croco Motors</b> Harare Showgrounds	Vehicles	Tel:
<b>MASCA health care</b>	Medical Aid	Tel: 029 63274-6
<b>Geoglobal Environmental Solutions</b> 5 Ambrose Place, 86 J. Chinamano Ave-	Environmental	Tel: +263 774 042 548

ZWL 200 to advertise HERE Call 0775523000