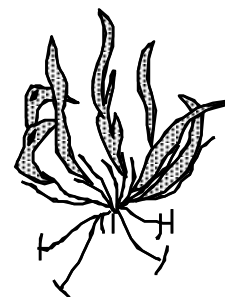


Geological Society of Zimbabwe



Newsletter



October 2013



Victoria Falls from on high. Photo: Andrew du Toit, February 2012

The Geological Society of Zimbabwe, P.O. Box CY 1719, Causeway, Harare

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Editorial

Not much to relate this time round, except to encourage you all to Victoria Falls for the Symposium. With a great line-up of speakers, and two different and interesting field trips in the offing, the experience should be very stimulating. The next Newsletter will be full of abstracts and report-backs from this symposium. However, there is a dearth for this Newsletter, but I have come up with a few historical facts, and note, rather belatedly the passing of Dr John Wiles, Director of the Geological Survey from 1967 to 1976. John made a great contribution to the regional geology of Zimbabwe in his time and should be remembered by members of the Mennell Society, both past and present, for his great involvement with students who gave him honorary membership of their Society. We welcome the feed-back on Mennell Society activities to this Newsletter.

The advent of an administrator for the Society, Jacqueline Magwenzi, is welcomed and her presence should open communication in both directions between the Membership and Executive of our Society. We look forward to that.

Again, my sincere thanks go to those regular contributors to this Newsletter, without whom it would not be.

Wishing you all well for the Symposium, and for the year to come.

Tim Broderick



Chairperson's Chat

Hillary Gumbo

On behalf of the Geological Society of Zimbabwe I am pleased to send to you our third newsletter for 2013. Following my plea to members in our last newsletter for a part-time administrator, I am pleased to announce the appointment of *Jacqueline Magwenzi* on a 6-month contract ending 28th February 2014, just as the new committee takes office. Jacqueline holds a Bachelor of Science General Degree in Geology as well as a Certificate in Project Planning, Monitoring and Evaluation from the University of Zimbabwe. She is currently working towards her Master of Science in Natural Resources Management and Environmental Sustainability with the Bindura University of Science Education. She has worked for the Environmental Management Agency (EMA) in various capacities as District Natural Resources Officer and Environment Education Officer. Currently she is engaged as a part time environmental consultant with ENILAW Consultancy.

Jacqueline operates from our new office at the University of Zimbabwe Geology Department, which we have now furnished with a computer and printer. You can contact her via email geol.soc.zimbabwe@gmail.com So we look forward to providing improved service delivery to our members.

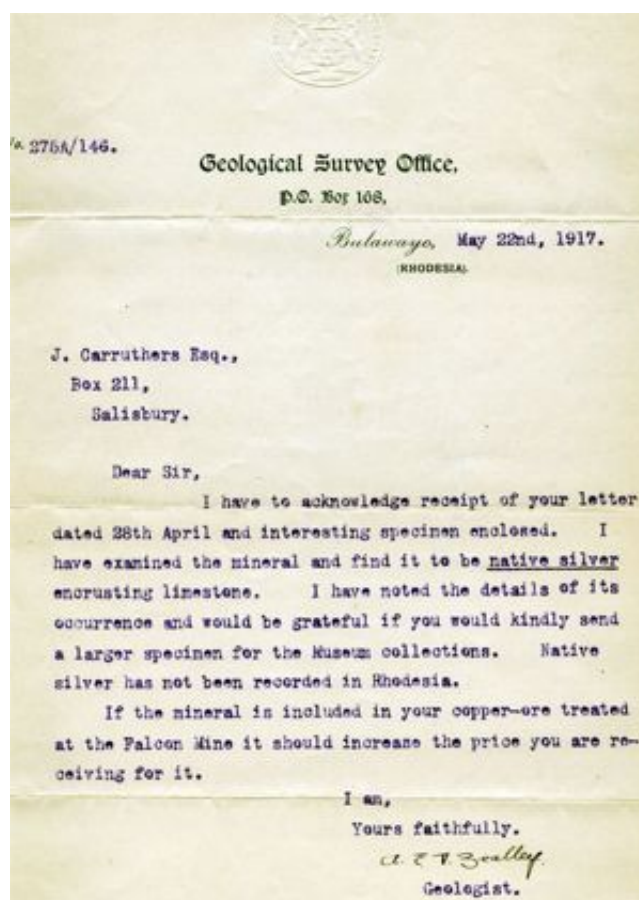
I would like to remind our members of the upcoming special Summer Symposium to be held in Victoria Falls on 28th to 30th November 2013. As you may have seen in the three circulars sent out to date, the symposium will be held in the Indaba Conference Room at Victoria Falls

Safari Lodge. Victoria Falls is increasingly becoming a busy place so please book your accommodation by 1st October at either Lokuthula Lodges, or the Safari Lodge (reservations@saflodge.co.zw) or by camping (reservations@restcamp.co.zw). See the circular for more detail. Please make it a success by attending as the more people the merrier it will be. We have plenty of rooms reserved for us but need to take them up before the deadline. It is an opportunity to take our families and friends out as well. Christmas is around the corner and the symposium will be a good warm up to the festive season. For those with geo-friends in Botswana, RSA, Namibia, Zambia, SADC etc., please invite them over. It's a drivable distance from all directions, and we look forward to the interaction.

Although there is no definite activity planned before the symposium, we will keep you informed should there be any new developments. A planned southern region field trip may still take place.

As always, thank you for your support and I wish you all the very best for the remainder of 2013.

Articles and Reports



Here is an interesting letter of historical value sent to me by Ian Carruthers, Grandson to one John 'Jack' Carruthers (1863-1951), an early resident and adventurer in Zimbabwe. It was Jack Carruthers who, on a traverse beyond the Angwa Goldfields through Urungwe Fort on

the Chipfuka River, reported the presence of workable mica sheets in 1901. He was at the time on a quest to chart possible road and rail routes down the Zambezi Escarpment to cross that river at the Lusitu confluence and upstream of Kariba Gorge respectively. Continuing towards Mazabuka and Kafue, the proposed rail junction, he pegged a number of coal and copper prospects in what was North-West Rhodesia. He then followed the Zambezi downstream past Feira and Zumbo to locate what are now known as the Muchana and Vuzi coalfields within the Cabora Bassa Basin.

In 1915-17 Jack Carruthers worked the Silverside Copper Mine with Moresby, and although the returns showed an average of 34% Copper, 4.7 dwt. of gold and 600 dwt. of silver per ton, the Syndicate made no profit. This was due to the transport and excessive charges on smelting at the Falcon Mine. Rhodesia Copper Ventures protected the title on the Silverside, and Carruthers was paid out £2,000 for his half share. Together with Moresby, they also held title to the United Kingdom claims.

I thank Ian Carruthers for sharing this information gleaned from his grandfather's papers.

Tim Broderick

Here is a snippet. **Rosa Margolis** (1907-2001), who with her brothers Bill and Max and husband to be, Boris Anolick, founded the company in 1931 that was to become Olivine Industries. Rosa studied geology at the University of Cape Town and was the Librarian at the Southern Rhodesia Geological Survey from 1928 to 1932. It was Rosa's interest in minerals that gave the name *Olivine* to the company. *TJB*

A passing I had feared, but not confirmed, is that of **Dr John Walter Wiles**, Director of the Geological Survey from 1967 to his retirement in 1976. The realization is thanks to a web announcement by his eldest son, Chris. Born on 29th April 1916 in Uitenhage, South Africa, John attended St Andrew's College in Grahamstown and later Rhodes University where he attained his BSc Degree in Geology and Chemistry in 1938. The following year he was at the Metallurgical Laboratory in Johannesburg on a Mineral Research Scholarship. WW II intervened and John joined the First City Regiment in Grahamstown prior to officer training, receiving his Commission on 21st February 1941. He went to North Africa in April 1942 as an anti-tank platoon commander with the 1st Royal Natal Carbineers, escaping capture at Tobruk but being wounded in action at Miteririya Ridge, El Alamein. Recuperating in South Africa, John returned to Egypt with the combined First City/Cape Town Highlanders in the newly constituted 6th SA Armoured Division in April 1943. Committed to the Italian Campaign, John was promoted to Commander of the Scouts with the rank of Captain. He was awarded the Military Cross on 18th October 1944 for his leadership in the following action.

Awarded on: March 8th, 1945

Action: Citation:

"During the Brigade advance along the line of mountains North of Grizzana a stage had been reached when strong positions had been won but little was known of the enemy strength or dispositions in the mountains ahead. This information had to be obtained before the next attack could be planned.

Six of the battalion Scouts, commanded by Captain Wiles, were sent on this task on the morning of 18th October 1944. He worked his way through the most difficult terrain of scree slopes and mountain and finally reached his objective, a long ridge running east and west, which dominated the route over which the Brigade advance would have to go. Enemy was observed moving up into new positions on the reverse slopes. By means of a pack set wireless Captain Wiles' patrol passed back the most accurate reports enabling the guns and 4.2 mortars to

engage with killing effect.

With complete calm and precision he continued to report and direct the fire, literally from the middle of the enemy's own position. The final act of cool courage being to bring down a concentration of 4.2 mortar bombs on himself as the enemy had cut him off and encircled his scouts. He then drew back under cover of the smoke and confusion of the barrage, and, returning to his Headquarters, without losing one of his men, gave a detailed and most accurate account of all that he had observed."

After returning to Rhodes University for his Honours in Geology, John married Sheila Pretorius in February 1947 prior to joining the Southern Rhodesia Geological Survey and being posted with colleagues Swift, White and Worst, he helped in the geological mapping of the south-east Lowveld. This culminated in publication of Bulletin No. 40 and a Master's Degree from Rhodes on the geology between the 'Lundi and Chiredzi rivers, Ndanga District' in 1949. He then mapped the 'eastern portion of the Hartley Gold Belt', published as Bulletin 44 in 1957. In 1955, whilst mapping in the Hurungwe District, he traversed the Zambezi Valley with friend Newby Tatham to discover the Chewore Igneous Complex. His pioneering mapping of the metamorphic terrain hosting the Miami Mica Pegmatites was an endeavour that earned him the publication of Bulletin No.51 in 1961 and a PhD Degree, again from Rhodes, in 1963. Not to be deterred from the passion of field mapping, John went on to produce the geological map around Sipolilo (Guruve), eventually published in 1972 as Bulletin No. 63 of the Rhodesia Geological Survey. John Wiles deserves to be counted with the great field geologists of Zimbabwe. His Directorship of the Geological Survey was equally illustrious, seeing the peak of regional geological mapping progress at up to 14,000 km² per year. Among other achievements, he chaired the Geological Society through the years 1970-71 and 1973-74, a period that bridged the hosting of the 'Granite '71' Conference. John was an Honorary Member of the students Mennell Society, to which he contributed greatly.

He retired to Knysna in South Africa in 1976 to run a small real estate agency with his wife Sheila before they migrated to Australia in 1985. Returning to South Africa in 1991, Sheila died in 1992. John returned to Australia in 1994, and in 1997 married Joan Danser in Perth. John Wiles passed away at Margaret River, Western Australia, on 19 May 2005 at the age of 89. *TJB, with acknowledgements to Chris Wiles.*



Dr J.W Wiles, Director, and D.O. Levy, Chief Cartographer with the bust of H.B. Maupe, 1971

News



Geology Department, University of Zimbabwe

Maideyi Meck

The Department seems to have stabilized. August saw us taking 24 students for the BSc 4-year programme. This means we now have two running streams with a total of 51 students. Slowly but surely consultancy enquiries are trickling in and members of the Department are offering advice on nearly all mineral commodities, on exploration and in petrography. Two PhD holders have applied to join the Department. If appointed we will have six in-house doctorates. Two students have registered for PhD research with the Department. Dr Nhamo's contract as Chairperson has been extended to 2014.

The Department has made an arrangement with one company, and now has a hand-held XRF which is being rented out at \$400 per day or \$30 per sample for those interested in doing quick scans.

The Mennell Society is up and running and students are organizing events for themselves. The Society is currently preparing to participate in the Victoria Falls summer symposium. Any donations in cash or kind are welcome to make help their trip affordable.

The Part 1 field trip took place from 8th to 18th June. It covered the Bindura/Shamva Greenstone Belt, the Great Dyke and the Chinhoyi Proterozoic sequence. The students camped in Bindura and thanks are extended to Freda Rebecca Mine for providing accommodation, ablution facilities and other services.

The department is appealing to mining companies to absorb our students on one-year attachments, which is a requirement in the new Bsc Honours programme.

As a Councillor to the GSAf for the southern African Region (2012-2016 term), Dr Meck will happily forward any news or discovery from Zimbabwe in the GSAf Newsletter.

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Note: DG – Department of Geology; MRC – Mineral Resources Centre; GSZ – Geological Society of Zimbabwe

The Mennell Society
University of Zimbabwe Geology Department - First year field trip report
(Shamva – Bindura – Mutorashanga – Chinhoyi)
08/06/2013 – 18/06/2013

After completing the first-year second semester exams, we were left with the much anticipated field trip that would mark the overall completion of our first year geology learning. The trip was particularly important as geology is a field-based subject and hence it is mandatory for all geologists to be able to apply their acquired knowledge in the field. Our first-year field trip was held in the Shamva-Bindura-Mutorashanga-Chinhoyi areas. We traversed the Harare-Bindura-Shamva Greenstone Belt near Shamva and Bindura, the Great Dyke around Mutorashanga and Mupinga, and the Magondi Mobile Belt (MMB) around Chinhoyi. The principal objective of the field trip was to introduce students to the tools, techniques and skills used by a geologist in the field as well as allowing an appreciation of the main rock-types representing the Zimbabwe granite-greenstone terrain, the Great Dyke and the flanking MMB to the north-west.

All students arrived at the Geology Department very early in the morning of the eighth, eager to embark on their maiden, examinable academic field trip. The lecturers-in-charge split the students into nine groups of three, each group being given its own compass/clinometer, geological hammer, hand-lens and a tape measure. Students were immediately taught how to adjust compasses for declination, after which we all settled in our respective allocated vehicles and by 07.30 hours had set forth on our adventure.

The first two days of the field trip were focused on outcrops in the Harare-Bindura-Shamva Greenstone Belt, including the granite-greenstone contact near Mverechena at Doboshawa, the Chinamora Batholith, Umwindsi Shear Zone as well as stopping at outcrops on Tafuna Hill and at the Mwenje Dam. More sites were visited around Bindura, and these provided a platform for students to observe and describe the main rocks and their attributes, and to measure and record geological information such as structural orientations. Techniques on how to identify and locate contacts between different rock units in a systematic and scientific fashion were also learnt, together with the recognition of geological features like veins, faults, folds and joints (including using them to determine relative ages by means of their cross-cutting relationships). We also drew representative field sketches of these observed geological features.

Day 3 focused on a visit to the Freda Rebecca Gold Mine at Bindura, the aim being to introduce students to the daily activities of a mine geologist. A brief background was given to us by the mine staff, including an outline of the regional geological setting, the local mine geology, the controls to the mineralization, and a description of resource modeling and ore estimation processes being employed at the mine. After the briefing everyone was equipped with the basic underground safety clothing, hard hat and lamp. The first stop was in the Promoter Open Pit, which has recently been opened. The next stop was the Freda Pit, followed by a demonstration of underground mapping and an explanation of the ground support systems. The information learnt on this day significantly improved our appreciation of the duties of a mine geologist, which also included supervising geological and structural

mapping, diamond drilling, core logging, as well as routine sampling and grade control. A tour of the processing plant was made, and this was accompanied by detailed explanations by the internal laboratory staff.

Day 4 (11 June) started very early in the morning with breaking of the camp at Freda Rebecca and driving to Chinhoyi via several stops across and along the Great Dyke. These stops included the Great Dyke view at a distance while on the road from Concession; the old Royal West Mine, the old Ethel asbestos mine, several chromite seam workings south of Mutorashanga, pyroxenites exposed along the Mupinga pass, and quartz gabbro of the Umvimeela satellite dyke. These sites were particularly important in demonstrating the tectonic setting and stratigraphy of the Great Dyke; sketches of the main geological units were made and descriptions were given of the vegetation associated with the changes in rock type. The team proceeded to Chinhoyi where we pitched our tents at Chinhoyi Caves National Park for the remainder of the trip.

Days 5 was mainly focused on our study of the Magondi Mobile Belt. On this day students were guided to appreciate and understand the main rock units and structures of the area, including the slate at the Slate Quarry, traversing the type section at King's Peak to study the Lomagundi Group stratigraphy from Lower Dolomite, Micaceous Sandstone, Quartzite (often pock marked), Pebbly Arkose, Upper Dolomite, and Slate with the associated Mountain Sandstone. The piggy-back thrusts at Lomagundi College and the Eldorado Shear Zone at Manyame River Bridge were also visited on this day. Detailed descriptions and some basic interpretations of these rocks were made as it was necessary to prepare the students for the main mapping exercise, which was to be done in groups within this area. All information was related to the regional geology, and was developed to give an idea of how mineralization, and hence exploration for particular minerals could be designed in such settings. Environmental issues associated with dolomite mining were also considered.

From the 13th to the 15th June, the geology class carried out geological mapping within the Chinhoyi area covering the Lomagundi Group and part of the basement rocks to the east. Each group was allocated a 5 km² strip, which they sub-divided into a series of mapping traverses parallel to dip direction and would walk along to identify and map out contacts between different rock units and any observed structural features. Structural measurements were particularly important during this exercise, and these, together with the mapped contacts and structures, were used to plot stereograms and to draw at least one cross section of the mapped strip to illustrate down-dip behaviour of the sequence, and to interpret the deformation processes, and hence the tectonic evolution of the Magondi Mobile Belt. This information was summarized in the form of a detailed feedback report for each mapped strip by the respective group members, which was submitted together with the stereoplots, cross sections and notebooks prior to departure for Harare on 16th June. It was an eye opening experience that further enhanced the student's understanding of the activities undertaken by an exploration geologist in the field.

After all the work was done it was time to relax and enjoy the final day. A braai was held at the Chinhoyi Caves camping ground. Members of the 2012-2013 Part-One class and staff of the Geology Department let loose and put on their dancing shoes as they celebrated a

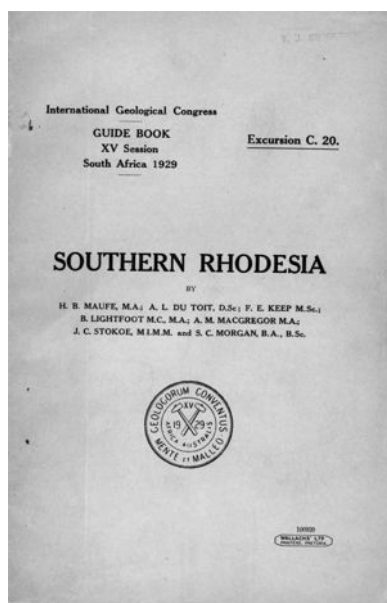
successful field trip. This was further lightened up by the fact that the Mennell Society Patron, Mrs N. Chinguno, had her birthday on the same day. Students also took the opportunity to get to know their lecturers away from the classroom environment, and to discuss basic topics such as career paths with them.

The following morning we submitted all pending assignments and reports, broke up camp, cleaned the site thoroughly, and visited the Chinhoyi Caves before departing for Harare. As a whole the trip was indeed a fascinating, eye-opening and stimulating experience.

The Mennell Society, through this report, would like to extend our sincere thanks to the Freda Rebecca Gold Mine team for being wonderful hosts to both students and staff on the trip. We really appreciate all their efforts in providing the team with accommodation, meals, personnel protective clothing, and most importantly, sacrificing their valuable production time to be with us throughout the day. We would also like to thank the Geological Society of Zimbabwe for the donations they put towards our first-year field trip. As upcoming geologists, we would like to say that we still need your help, and we appeal to the geological society as a whole, and to individual mines and organizations to continue to support us in 'cash or kind' throughout our learning process.

Lastly, we would like to thank the Geology Department members of staff who worked so hard to ensure successful completion of this trip, including Mr G. Chinoda, Dr M. Meck, Prof I. Manuel, Dr T. Njila, Mr D. Maguze (Chief Technician), Mr F. Zihanzu (Technician), Mr D. Mupambo (Technician) and Mr P. Sena (Technician). Mrs N. Chinguno and Mr T. Marova also volunteered to take their time out and be with us in the field. We appreciate all your efforts in improving our student learning process.

Compiled by Members of the Mennell Geological Society and edited by Mr G. Chinoda



This 1929 Field Trip for the International Geological Congress to Zimbabwe was undertaken entirely by train, and it included a visit to the Victoria Falls and Hwange.

**ZIMBABWE**

Geological Survey Department

Forbes Mugumbate

Rumbidzayi Shereni, a final year geology student at a university in Algeria, was on attachment at the department for two and half months. She is going back at the end of October to complete her studies. We hope her time at the Survey was well spent, and we wish her success. **Sibongubhle Mpindiwa** remains attached to the Ministry of Mines as the Secretary to the Mining Affairs Board. We hope she is enjoying rubbing shoulders with the top hierarchy in the Ministry. Otherwise there is no change to the staffing situation at the Department.

Editorial corrections to the draft of **Bulletin 95** (Dorowa-Shawa) are almost complete. The department will make all necessary efforts to have the bulletin published during the first quarter of 2014.

There is a new impetus towards production of the 1:1 million-scale geological map of the country. Discussions have been held with a cartographic expert on the way forward. We hope to be reporting positive developments on this in the next issue of the Newsletter.

The second part of a project, in which the Zimbabwe Geological Survey and the China Geological Survey, Tianjin Branch, have entered into an agreement to carry out systematic regional geochemical stream sediment sampling of the country, has commenced. If you remember, the first part was conducted between 2008 and 2011 and involved the collection of 30,334 samples over an area of 12,000km² (3.3 samples per km²) across south-eastern Zimbabwe. That has resulted in production of a geochemical atlas depicting the distribution of 39 elements. In the current programme, two areas in the north and central parts of the country will be investigated and are bounded by co-ordinates 30° 30' to 32° 00'E and 17° 00' to 18° 00'S and 29° 00' to 30° 30'E and 19° 00' to 20° 00'S.

MINING INDUSTRY NEWS

Forbes Mugumbate & Mitshell Maisera

fmugumbate@gmail.com

Ministry of Mines and Mining Development

The much awaited general elections were held on 31st July 2013 in a peaceful environment, and resulted in the inauguration of a new government. The consequence of this process is that the top three posts within the Ministry of Mines and Mining Development are now occupied by new faces. We welcome as Minister Walter Chidhakwa, with his deputy Fred Moyo, and ‘Permanent’ Secretary Professor Francis Gudyanga. Industry eagerly awaits the approach these gentlemen will take to facilitate revival of the mining industry. We hope these new ‘brooms’ will sweep cleaner, as the old adage goes. Fred Moyo is a mining engineer with extensive experience in running the business of mining while Francis Gudyanga is a metallurgist with a strong academic background. Francis is a keen follower of Geological Society activities, having attended several sessions of the Summer Symposium when he was Secretary for the then Ministry of Science and Technology.

Minerals Development Policy

Judging from the various speeches by the President and other high-ranking government officials, the mining sector is under the spotlight. Mining is expected to take a lead in the economic development of Zimbabwe. The new government has to work extremely hard to fulfill the expectations of the populace. As a result of these expectations, the Ministry of Mines is coming up with a Minerals Development Policy that will form the foundation upon which a New Mines and Minerals Act will be developed. It is intended that the new policy will have attributes that will help to foster development of the mining industry. The Policy document is now being crafted following highly successful stakeholder consultation workshops.

Mining Promotion Corporation

Also in an attempt to promote mining, government is resuscitating the Mining Promotion Corporation (MPC). This is an exploration company formed in 1967 under the IDC, but the structure was transferred to the ZMDC in 1984. It went dormant in 1994 as a result of financial constraints. It remains to be seen what form the company will take, and how it will assist in promoting development of the mining industry.

Mine Entra

The annual mining, engineering and transport expo, *Mine Entra*, was held in Bulawayo in July under the theme “Extract Value, Boost Economic Growth”. The exhibition was officially opened by the then Deputy Minister of Mines and Mining Development, Gift Chimankire. It was considered to be a success considering that exhibitors occupied only 82 per cent of the space that had been set aside for them. This was despite the fact that it was held a few days before the general elections. A total of 234 exhibitors participated of which 23 were foreigners mainly from China, South Africa and the United Kingdom. This year’s expo was conspicuous by a strong presence of small-scale miners and manufacturers of small-scale mining equipment. The small-scale miners and the large-scale sector, together with suppliers of service, held well-attended conferences during the Expo.

Mining Indaba 2013

The Indaba annual mining conference organised by Utho capital was held at the Harare International Conference Centre from 25 to 27 September 2013 under the theme ‘Redefining Africa: Harnessing our Resources Collectively’, and amid concerns from visitors that there were no new developments in the mining sector since previous conferences. The participants were, however, given a dose of what to expect from the forthcoming Mining Development Policy and the consequent Act. The conference was held just as the new Minister, his deputy, and Permanent Secretary had been appointed to lead the Ministry of Mines. Presentations indicated that Zimbabwe’s mining sector continues to lead in export earnings for the country, rising to \$2 billion in 2012, from \$1.8 billion in 2011. The major drivers in this growth include diamonds, platinum and gold. The sector also continued to lead economic performance, contributing an estimated 16% to gross domestic product in 2012, up from 13% in 2011. Militating against higher growth rates, however, is the non-availability of medium- to long-term credit facilities for working capital and recapitalization requirements, as well as perennial power shortages owing to deteriorating energy infrastructure. Other challenges facing the Zimbabwe mining industry include the adoption and implementation of indigenization legislation and regulations; upgrading infrastructure such as rail and road links; instituting mining legislation, policies and strategies that are transparent and certain; attracting funding and finance; as well as managing the negative perceptions that have pervaded Zimbabwe.

ZMDC and Sanctions

The European Union has indicated that it is withdrawing all sanctions against the state-run Zimbabwe Mining Development Corporation (ZMDC) following increasing pressure from members, especially Belgium, the global diamond trade centre. ZMDC operates five joint-venture mines in the Marange diamond fields, producing eight million carats last year and generating \$685 million in exports. Diamond production from Marange increased from 8.7 million carats in 2011 to 12 million carats last year. This year, production is expected to rise further.

The World Federation of Diamond Bourses (WFDB) has welcomed the European Union’s lifting of sanctions against the ZMDC. This would enable Zimbabweans to benefit from the country’s rich mineral resources and would mitigate any illegal exports.

Mining Highlights

Small-scale mining

Although small-scale mining has deteriorated in terms of the quality of mines, now being mainly artisanal in character, there are reports that gold output from this sector has increased significantly. For instance, deliveries by the sector went up by 28.6% to 211.66kg in May from 164.55kg delivered in April.

The current character of mining in Zimbabwe is the domination of the sector by thousands of artisanal miners and a few large mines. Missing between the two ends are the well-structured small producers, which simply suggests that there is great potential for growth within the sector. The challenge that the country faces is to transform many of the artisanal mines into

professionally run small mines. The Ministry of Mines is in this regard reviving comprehensive assistance to small-scale miners, including the setting up of mining service centres similar to the now defunct Shamva Mining Centre. Small-scale mining associations have also become very active, with some forging strategic partnerships with manufacturers of small-scale mining equipment.

Bindura Nickel Corporation (BNC)

The BNC has announced completion of a competent person's review of its business plan to restart operations at Trojan Mine. The report enables the company to update its ore reserve statement. The reserves now stand at 3.168 million tonnes of ore at an average grade of 1.04% nickel, a 28% increase on the previously reported reserves as of March 2010. The business plan is based on exploitation of reserves on and above the 49-Level, which are projected to support mining for 10 years. Construction of infrastructure required to access deeper levels has already begun.

Platinum Refinery

The Platinum Producers Association of Zimbabwe reports that it has completed the feasibility study for a platinum refinery, in line with government's demand for the local beneficiation of high-value minerals prior to export. Platinum producers have been under pressure from government to take steps to beneficiate their production before export. The producers namely Unki, Mimosa and Zimplats suggest that work towards the establishment of the country's first centralized platinum refinery is already under way. The refinery is expected to cost at least \$2 billion.

Caledonia Mining

Caledonia Mining has reported a 3.9% quarter-on-quarter increase in gold production at its Blanket mine for the quarter ended September 30. Gold production for the quarter amounted to 12,042 oz, compared with the 11,588 oz produced during the second quarter. Production for the second quarter reflected a 10.7% increase on the 10,472 oz produced in the first quarter of the year. Total gold production for the nine months ended September 30 increased by 1.4% year-on-year to 34,103 oz, compared with the 33,643 oz produced in the first nine months of 2012.

RHA Tungsten Project

Premier African Minerals is preparing to start tungsten production on RHA tungsten project, in the Kamativi tin belt, during the second half of 2014 following positive results from a recent technical assessment. The deposit will be exploited both by open pit and underground. The technical assessment followed an earlier preliminary economic assessment (PEA) and mining concept report, which confirmed the economic viability of the site supporting a low-capital 192,000 t/y tungsten-bearing ore operation with a six-year mine life.

Ban on alluvial gold mining

The success of an alluvial gold project along the Mutare River has triggered intense evaluation of other rivers for the resource. This has resulted in some substantial discoveries. However, some companies have rushed into mining without following the prescriptions of their EIAs. As a result a great deal of damage has been caused to some rivers, especially the Mazowe,

which prompted the EMA to ban the mining. Some of these rivers contain a lot of gold, as shown by the Mutare that was at one stage producing over 60kg per month. Thus with this knowledge, it will always be difficult to just impose a blanket ban, as illegal miners will move in. Perhaps the solution is to ensure organized mining under guidance of approved EIAs.

Dalny Mine closes

New Dawn Mining Corporation reports the shutting down of its subsidiary Dalny Mine in Kadoma after Zesa Holdings disconnected power supplies to the mine over debts. New Dawn wholly owns Dalny through Falgold in which it has a 84.7% equity. As a result of the closure, New Dawn said Dalny will be placed under care and maintenance while its 900 employees are being placed on unpaid leave. The decision to terminate mining operations at the Dalny Mine was also influenced by other factors including increasing payroll and power costs and high domestic royalties, taxes and fees, as well as a damaging and costly illegal strike and the lack of full electrical power.

News about Zim Geoscientists

We hope your contributions may improve with the Facebook initiative. Talk to you on the Geological Society of Zimbabwe Group, an open link. Join us there for better communication.

Please provide us with news about yourself or other geologists. We need to keep in touch with all of you out there. E-mail: hgumbo@mweb.co.zw or makari@zol.co.zw

Conferences

TANZANIA TO HOST THE THIRD YOUNG EARTH SCIENTISTS CONGRESS

AUGUST 2014: Geology (CAG-25)

The Congress will be organised in co-operation with government and other non-governmental organizations under the auspices of the Geological Society of Africa (GSAf) and other development partners. The congress is expected to bring together more than 300 early-career earth scientists, both practitioners and students, from different countries around the world. Young and prospective earth scientists are encouraged to join the network and register for free on the web site www.networkyes.org.

The congress will be held in Dar es Salaam from 18th -21st, August 2014. This event is scheduled as part of an on-going effort to enhance youth's participation in earth resources for sustainable development and economic integration. This will be the first time for such auspicious congress to be hosted in Africa said the National Representative of Young Earth Scientist Network in Tanzania Stephen Nyagonde.

The 23rd International Geological Congress, Cape Town, South Africa – 2016.



Geological Society of Zimbabwe



SUMMER SYMPOSIUM AT VICTORIA FALLS 28-30th November 2013

The Geological Society of Zimbabwe holds an annual symposium towards the end of each year where presenters, from amongst the membership and invited guests, talk on a wide variety of topics of interest to the geological community.

SCHEDULE

Pre-Symposium Field Excursions

28th November 2013

Around the Falls area on the Zambian and Zimbabwean sides of the border - lead by Andy Moore
Costs and details to be advised

Symposium

29th November 2013

Indaba Conference Room at Victoria Falls Safari Lodge

Name	Proposed Talk
Sharad Master	New U-Pb zircon geochronology of the Palaeoproterozoic Dete-Kamativi Inlier, Magondi Belt, Zimbabwe, and implications for the western boundary of the Archaean Zimbabwe Craton.
Allan Wilson	The Archaean Pongola Supergroup in South Africa; a glimpse at Earth's earliest preserved stable continental margin.
Thomas Oberthur	Platinum mineralization of the Great Dyke - from sulphide ore via the weathering cycle into placers.
Tony Martin	The impact of hydrothermal solutions on the world economy.
Axel Hoffman	A new search for ancient detrital zircons in Zimbabwean sediments.
Ali Ait Kaci	Dinosaurs of Zimbabwe: a review.
David Love	An introduction to the Environmental Mineralogy of Zimbabwe.
Lovemore Chimuka	Exploration Techniques: Discovery of Sese and Murowa Kimberlite Fields.
Lynsey Singh	X-ray and Micro Computed Tomography.
Zibisani Bagai	Is the Moroka Granite on south-western margin of the Zimbabwe Craton in NE Botswana part of the Chilimanzi Granite?
Marina Yudovskaya	Origin of the zonal PGM and PGE distribution in the platinum reefs of the layered intrusions.
Judith Kinnaird/Freddy Chikwiri	Preliminary results on oxidised PGE ore section on Mimosa (Great Dyke).
Herwig Marbler	Introduction to German Mineral Resources Agency (DERA).
Peter Nyabeze	Using GIS datasets to delineate groundwater-bearing structures at hot springs in southern Africa: Case Studies from South Africa and Namibia.
Benjamin Mapani	A fingerprinting method for the identification of uranium sources in alluvial aquifers, Namibia.
Gordon Chunnnet	TBA

After Dinner Talk

Sharad Master	Journey to the hottest place on Earth: the bizarre geology of the Danakil Depression (Ethiopia) - active volcanoes, deadly hot springs and hypersaline lakes.
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Post-Symposium Field Excursion**30th November 2013**

Visit to the Kamativi Area - lead by Sharad Master (WITS)

Costs and details to be advised

Accommodation

Several self-catering lodges have been reserved for participants at the adjacent Lokuthula Lodges. This sharing, self-catering accommodation at Lokothula will be range from \$45 to \$60 per person, per night.

Please reserve and pay for your accommodation directly with Lokuthula Lodges, email reservations@saf lodge.co.zw and indicate that you are part of the Geological Society group. You will need to book and pay deposit before **1st October**.

There is also bed and breakfast or full hotel accommodation at the Safari Lodge (reservations@saf lodge.co.zw) and the possibility of camping or staying in the nearby rest camp :- (reservations@restcamp.co.zw)

Costs

Registration \$50 for the Symposium, includes symposium attendance, lunch, teas and abstracts only. You need to book and pay for accommodation separately and direct with the lodge or camp of your choice.

Please reserve your place before 15th September 2013 by paying \$50 into:-

Bank Details

Acc No 6533195

Barclays Bank

Kurima House 2157

Please let us have confirmation of your payment for reconciliation purposes.

Please let us know if you are interested in attending either or both of the field trips.

Address all inquiries, replies and other correspondence

To:

The Secretary

Email: geol.soc.zimbabwe@gmail.com



Leaping Waters by Thomas Baines



GSZ Research and Development Fund

Enquiries relating to the distribution of funds through this facility should be made through the standing Chairperson.



SEG Timothy Nutt Scholarship Memorial Fund

This fund will be available to provide financial support for geology students and young economic geologists located in Zimbabwe or in Southern Africa with ties to Zimbabwe. The fund may be used to support SEG student chapter activities, travel to meetings, field trips, for research or study grants, technical lectures or any other activities approved by the SEG Regional Vice President for Africa.

- # Applicants must describe what the project is, why the research is important and how it is to be done.
- # An estimate of expenses for the project must be included with the application.
- # Grants are expected to be fully utilized by year-end.
- # Grant recipients are required to provide a year-end accounting of how the money was spent together with a suitable progress report or final abstract.

See the Society of Economic Geologists website for further details and the next call for applications.

3D EARTH EXPLORATION (Pty) LIMITED

Geophysical Contractors & Mineral Exploration Consultants

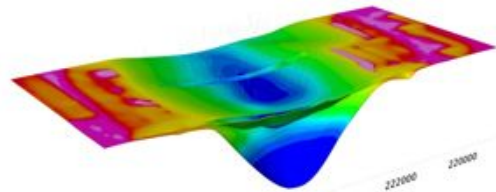
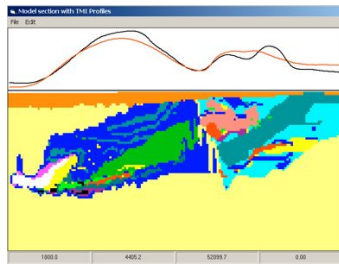
3D Earth Exploration is a Botswana-registered company operating in the Africa theatre and provides the following services:

- Ground geophysics surveys
- Physical rock properties measurements ...&... 3D Data processing and interpretation

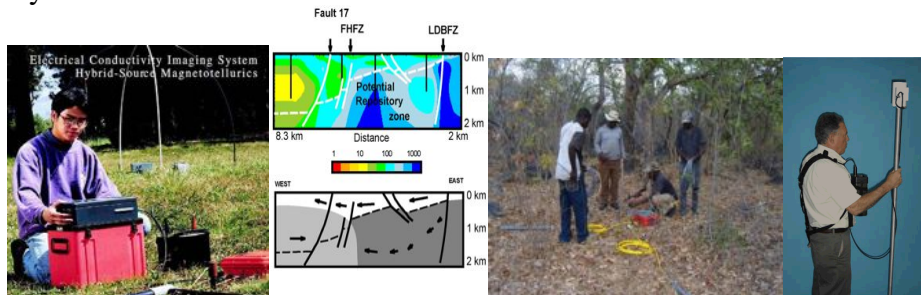


GDD MPP-EM2S+ Magnetic susceptibility and conductivity probe and aximOnsite data processing

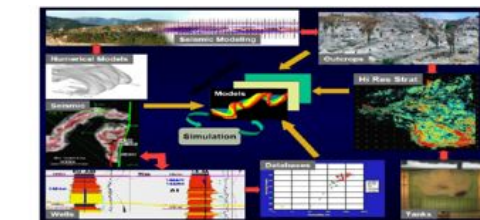
- 3D magnetic and gravity data modelling



- CSAMT, ground magnetic surveys, Induced Polarisation, gravity (CG3/5, La Coste), rock properties, EM, GPR, radiometrics and a wide range of other ground geophysics surveys.



- 3D Data integration and visualisation



CONTACT:

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Institutional Membership, 2013

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 Unki Mines (Pvt) Limited
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