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Partially cleaned emeralds ranging from 3.5 to 41.5 carats in weight and 5-25mm in size

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Gravelotte: Excellent Progress Made in Evaluating Sorter Alternatives.

- Testing of both Optical and XRF sorting options is progressing extremely well.
- XRF test work has produced excellent results which is an exciting development for the project.
- Small optical sorter onsite for a one month rental period to enhance understanding of and assessment of this machine and optical sorters more broadly
- External optical sorting test work ongoing with two large European manufacturers with positive results to date

Magnum Mining Limited (ASX: MGU) is pleased to provide an update on the significant progress it has made in its physical sorting test work for emerald recovery. The tests are being undertaken on material from the Gravelotte Emerald Project located in the Limpopo province in South Africa.

Emeralds were discovered in the Limpopo Province in 1927 and, since then, several companies have explored for and mined within the broader region for emeralds.

From 1929 to 1982, the total recorded emerald production from the Gravelotte Project – as well as the area surrounding the nearby Gravelotte township – was nearly 113 million carats.

It is reported that, during the 1960's, the Gravelotte Project itself was the largest mine of its type in the world, employing over 400 sorters.

During the past 36 months, Magnum has worked to re-establish the historical database and develop a strong understanding of the geology, structure and controls of mineralisation within the project area.

The Company has maintained extensive mine site infrastructure at Gravelotte including offices, laboratory, workshops, garages, management accommodation complex and a mine hostel to accommodate mine workers.

In addition, the mine site is serviced by ESKOM grid power, has a sealed road to the mine gate and has a working airstrip.

Why is Magnum evaluating sorting options?

Pursuant to the commencement of Phase 1 of the Trial Mining operation in February 2018, a focus of Magnum has been to analyse the crush characteristics of the emerald bearing material. This has been carried out to determine the smallest crush size possible where the maximum number of emeralds are exposed and/or liberated from the emerald bearing material and the minimum number broken during this crushing process.

Contemporaneous with that testing the Company initiated an assessment of hand sorting of the emerald bearing material to determine the speed, efficiency and cost of this method to recover emeralds.

Magnum also continued to investigate alternate sorting solutions such as optical and x-ray fluorescence but was somewhat limited in this endeavour until the crush characteristics of the emerald bearing material had been confidently determined.

The assessment of hand sorting has demonstrated that it is significantly slower than anticipated which would have processing cost implications in any commercial operation. This test work also highlighted that hand sorting has a sub-optimal efficiency in recovering all emeralds and a higher potential risk of theft during the sorting process.

As previously advised Magnum has now completed its crush test work and believes that this characteristic of the emerald bearing material at Gravelotte is now well understood. This in turn has allowed the Company during past few months to supply for the first time suitably crushed and washed material and a representative sample of emeralds, to various suppliers of optical and x-ray fluorescence sorters.

Continued on Page 2.



Aerial view of the Gravelotte Mine Site showing key infrastructure



Trommel



Optical Sorter

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X-ray Fluorescence sorters

X-ray Fluorescence ("XRF") sorters work by setting an appropriate x-ray wave length that will cause the emeralds partially exposed in the crushed material to fluoresce. When the XRF detects fluorescence it shoots a short burst of air which causes the fluorescing emerald to be blown from the non-emerald bearing material and into a separate container. The fluorescing material is then placed into a locked safe box before final sorting of this resultant concentrate.

Recently completed XRF test work with a leading manufacturer of XRF sorters produced excellent recovery results (detected 100% of the emeralds in the test parcel) in addition to a high efficiency for the final concentrate (less than 3% of the test parcel reported as concentrate). The XRF machine showed excellent durability and Magnum have been advised that it requires low maintenance. The machine is also, very importantly, capable of achieving this high recovery and concentration at high throughput levels.

The Company is extremely excited about the potential of XRF sorting technology to provide an effective, efficient and economic sorting solution.

Discussions and further tests will be ongoing in the near term with various parties to finalise our assessment of this technology.

Optical sorters

The Optical sorting technology utilises cameras to undertake sorting of emeralds by detecting the colour of the emeralds. There are various manufacturers of optical sorters with different

Magnum has been working with a range of leading manufacturers to assess the suitability of their machines to optimise the recovery of emeralds from the Gravelotte material.

Test work completed in early September with one European supplier produced positive results and these are being analysed to identify optimisations for the next phase of tests.

The Company has also delivered material to a second European producer of optical sorters and trials are anticipated to be undertaken over the next week.

In addition, the Company has rented a small optical sorter, from a third manufacturer, and has had it operational on site for the past two weeks.

This has provided a real world environment to assess various parameters which can impact on the effectiveness of the machine and optical sorters in general. The main issues assessed have been moisture content, recovery levels, concentration levels and the throughput capacity of the machine. This information is of vital importance in assessing all optical sorting options.

What Next?

Magnum will continue its collaboration with the various parties on assessing and optimizing the sorting options available.

The various technologies and manufacturers are being assessed against the main variables of performance, cost, throughput capacity and lead times for delivery of machines.

The Company is very satisfied with the progress made to date in assessing the sorting options.

It is intended that this phase of assessing and selecting a sorting solution will be completed early in the March 2019 quarter.

Once Magnum has selected a sorting machine, the Company intends to commence preparations for the Hard Rock Phase 2 Trial Mining Programme at Gravelotte.

Gravelotte Project, Trial Mining Photo Gallery



Excavation of Waste Dump



Excavated Waste Dumps



Excavated Waste Dumps



Aerial Shot of the Waste Dumps

Meet the Team

Wessel Marais, General Manager of Operations Gravelotte Emerald Project, South Africa

I left the South African National Defence Force having served 19 years as an officer in the Infantry Corps and joined a diamond mining company in Angola in 1998 as the Project Risk Manager.

In 2000 I joined African Gem Resources (AFGEM) in Tanzania at their tanzanite operation at the foothills of Mt Kilimanjaro. I served in various roles including logistics, risk management, Human Resources, Administration and was appointed to the position of Assistant General Manager in 2009 and General Manager in 2011. I also supported our marketing and sales teams with our site sales, gaining valuable insight into the world of coloured gemstones.

I joined Magnum Mining and Exploration in 2014 on their Gravelotte emerald project, in the Limpopo province of South Africa. The Gravelotte Emerald Mine had produced over 100 million carats of emeralds, and were widely known in the industry as the "Cobra emeralds", the name being derived from the Cobra north and south pits. An exciting challenge to bring the mine "back on line" lies ahead. With the new technologies available, especially in the recovery of emeralds from the run of mine material, we look forward to re-establishing the "Cobra emeralds" in the market place.

I am keen a sportsman and I have completed over 450 marathons and ultra-marathons, I enjoy my golf, and take pleasure in pursuing my wild life photography hobby when time allows.



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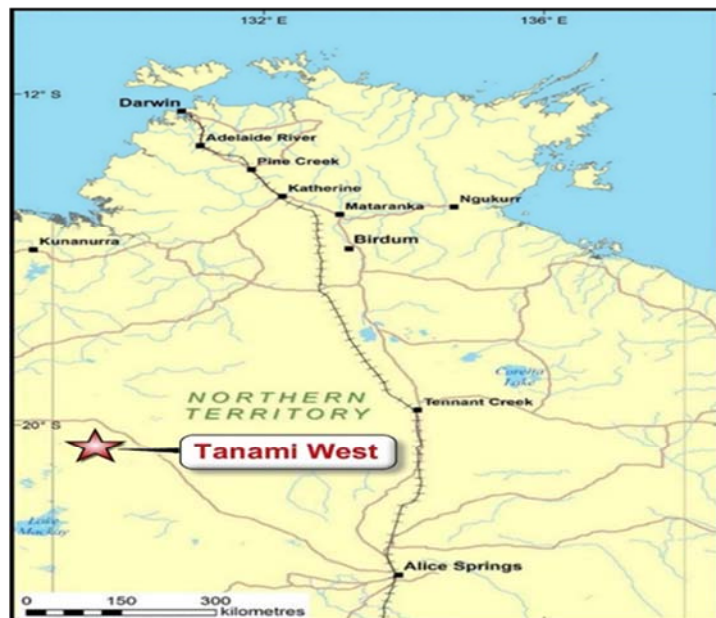


Figure 1: Tanami West Location Map

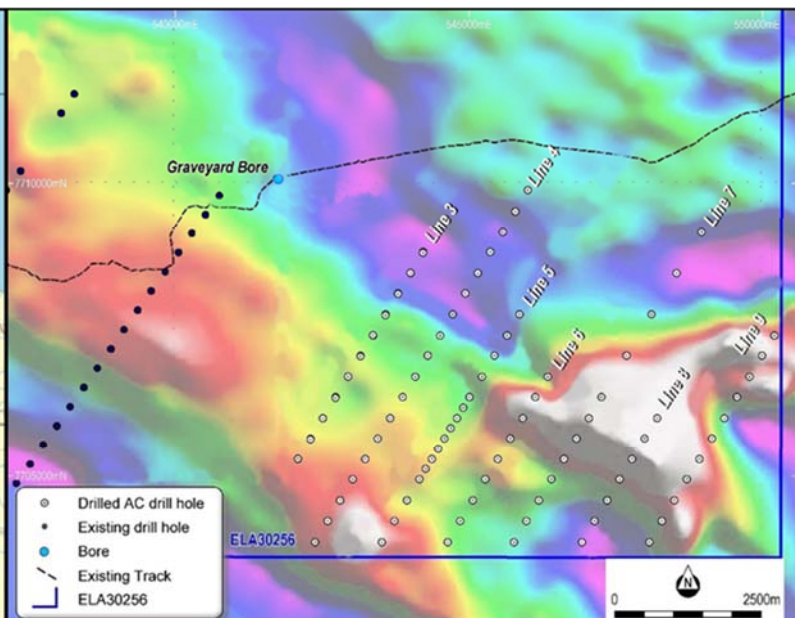


Figure 2: Reprocessed Aeromagnetics

SHARE REGISTRY

Are your
shareholding details
up to date?

Are you currently receiving all
correspondence from Magnum
Mining and Exploration Limited?

Would you like to nominate to
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Printable forms are also
available at the Investor Centre.

First Pass Exploration Programme Completed at the Tanami West Project, Northern Territory

Magnum's Tanami West Project consists of exploration licence 30256 and pursuant to an agreement with the tenement's 100% owner Ferdies Find Pty Ltd ("Ferdies"), Magnum can earn up to 80% of the issued capital of Ferdies subject to an exploration expenditure of \$1.1 million over a minimum of three years.

This is a high risk high reward project being situated in a remote part of the Northern Territory (see Figure 1) but within a sequence of rocks that have hosted very significant gold deposits and present company maker sized targets.

This potential upside together with the identification of a higher priority 50 square kilometre area located in the south east corner of the tenement that could be explored relatively cheaply is what attracted Magnum to this project.

After an in-house study to determine where the major structures and preferred rock types were situated a drilling programme was completed in early September.

The very large majority of the targeted area is aeolian sand covered making surface geochemistry problematical. As a consequence, the drilling programme, whilst targeting a number of specific magnetic and structural features was also very much reconnaissance in design so as to provide important geological and geochemical information over a poorly understood part of the Tanami region.

The dominant lithology's intersected were sandstones, siltstones and vesicular basalts and desk top studies are continuing to determine their stratigraphic position within the Tanami Group sequence.

Drilling on the southern end of lines 4 and 5 (see Figure 2) intersected a wide zone of intensely altered and fractured rocks which appear to be after siltstone and possibly volcanic fragmentals although this needs to be confirmed by petrology. Within this altered sequence on line 4 hard marble (metamorphosed limestone) was also intersected across two drill holes. This may indicate metasomatic alteration which could tie in with the alteration observed in the adjacent holes.

No obvious mineralisation was observed during the drilling but base of hole samples for all holes have been submitted for geochemical analyses.

Based on the drilling and re-logging of holes previously drilled to the west by the tenement holder the project area potentially hosts two volcanic centres and this possibility will be further explored.

It does appear that the Tanami West project may have greater potential for base metal mineralisation (copper) than gold but this will be confirmed through the geochemistry.

A total of 83 vertical air core drill holes were completed for a total of 2,103 metres. The majority of holes were drilled to blade refusal.

Drilling was on a 800 metre by 400 metre grid with each hole logged on 1 metre intervals.

Samples were collected from the base 4-6 metres of each hole as well as higher intervals where alteration was logged. These samples have been submitted for multi-element assay and results are expected in 3-4 weeks.



WE HAVE MOVED

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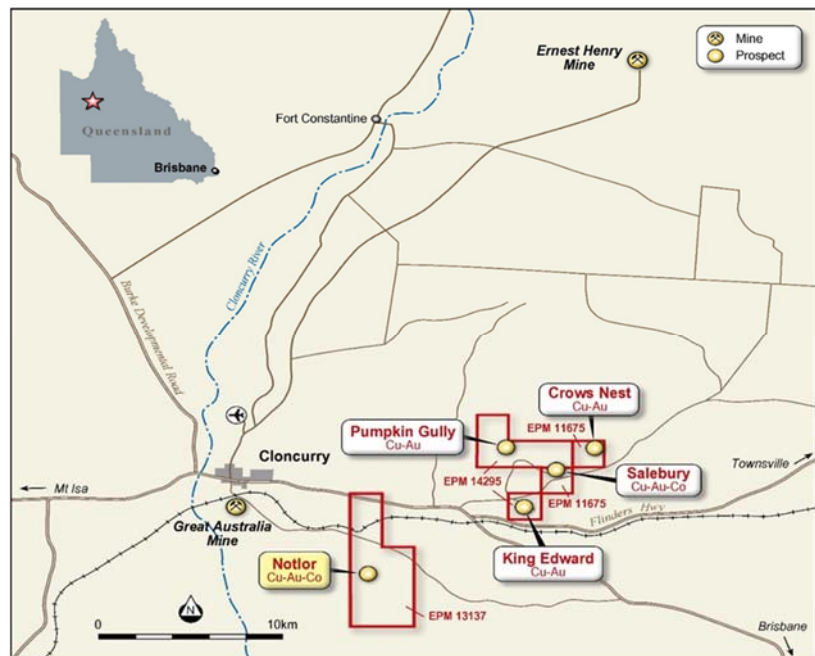


Figure 3: Location of Notlor EPM, Cloncurry East Project

Year 1 Joint Venture Expenditure Commitment Completed at Cloncurry East

Magnum's Cloncurry East Project consists of two tenement groups with both located between 10-20 kilometres east of Cloncurry in North West Queensland.

The Project lies within the highly mineralised Mt Isa Eastern succession with nearby mining operations and advanced projects including Ernest Henry (Cu-Au), Monakoff (Cu-Au-Pb-U), Great Australia (Cu-Au), Rocklands (Cu-Au) and Dugald River (Zn-Pb-Ag).

Magnum is exploring this project under joint venture where Magnum can earn an initial 50% equity stake by expending \$2 million over a three year period and an additional 25% equity stake through the expenditure of an additional \$2 million in year four. The tenement owners retain the right to claw back to 50% ownership in consideration of the payment of \$2.66 million to Magnum.

Magnum has completed year one of the joint venture.

During the first year Magnum completed extensive historic data analysis and review, field reconnaissance and a seventeen hole, 2,004 metre reverse circulation drilling programme. Three of the priority prospects – Notlor, Salebury and King Edward were drill tested.

The results of the drilling were very encouraging and as previously reported the Notlor prospect demonstrated intersection continuity at depth with potential economic grades of copper, gold and cobalt. Metallurgical test work indicated that the copper and gold at Notlor can be recovered through a float but additional test work is required to determine the best way to recover the cobalt.

At King Edward the limited drilling (three holes) indicated potential for a lode continuation of an operating gold mine along strike and abutting the western tenement boundary and additional drilling is proposed. If a drilling rig can be secured this drilling will take place in the December 2018 quarter.

The work completed to date at Cloncurry East indicates a lower tonnage potential across the main prospects than was originally targeted but higher grade zones suggest it has strategic potential for add-on exploration and development plays within the region.

The information in this newsletter that relates to Exploration Results and Mineral Resources complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) and has been compiled and assessed under the supervision of Mr Howard Dawson, Non-Executive Director of Magnum Mining and Exploration Limited. Mr Dawson is a member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Dawson consents to the inclusion in this newsletter of the matters based on his information in the form and context in which it appears.

