



**MAGNUM**  
MINING & EXPLORATION LIMITED

- *Gravelotte Emerald Project*
- *Hard Rock Trial Mining to commence in early 2019, after successful Phase 1 Trial Mining of dump material*



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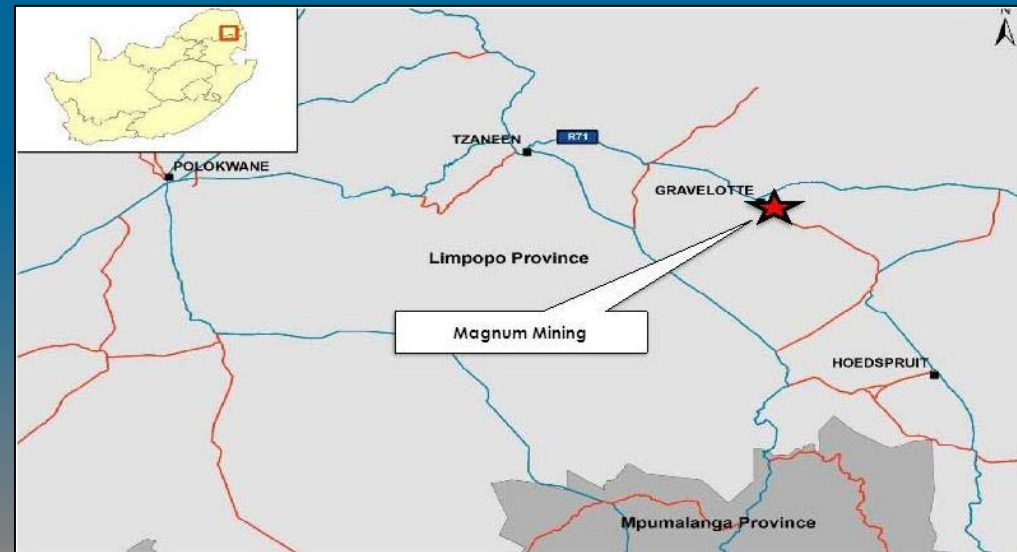
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## Key Points

- ✓ Near term commercial development opportunity.
- ✓ Granted Mining Licence and Permits.
- ✓ Significant mining history and geological data.
- ✓ Extensive infrastructure.
- ✓ Emerald brand awareness.
- ✓ Gravelotte is located in the Limpopo Province, South Africa

Gravelotte





## Strong Production History

- In the 1950's & '60's , Gravelotte was the largest emerald mine in the world, employing over 400 sorters, recovering a total of 112.7 million carats of emeralds over the life of operations.
- Whilst a complete historical data package is not available, the data that has been sourced has provided high confidence for the projected re-development of Gravelotte.
- Operations in the early 1980's are reported to have returned a recovered grade in excess of 6 g/t (30 carats/t) of exportable emerald.
- Anecdotal evidence from previous owners indicates that processing security was poor and as a result the historical recovered grade is considered to be very conservative.
- Magnum's evaluation of Gravelotte is at an advanced stage with the Company's studies targeting an initial production level of around 3 million carats per annum.



# Phase 1 – Dump Mining

Successful completion of Phase 1 Trial Mining has allowed the Company to finalise the Phase 2 Hard Rock Plant Parameters.

## *Results of Phase 1 Dump Mining:*

- Treated **256.6 tonnes** of crushed dump material from four dumps and recovered **11,775 carats of emeralds**. This is an average recovered grade of **46 carats** per tonne.\*
- ✓ Successfully determined the optimum crushing methodology to maximise the liberation of emeralds from the host rock, whilst minimising damage to the emeralds (9.5mm – 12.5mm).
- ✓ Determined the critical data for the design and construction of a trial mining plant capable of processing 2,000 tonnes of ore per month.
- ✓ Allowed detailed assessment of Optical and XRF sorting solutions specific to Gravelotte material.
- ✓ Testing of both sorting technologies has been successful, however XRF technology appears most favourable. Detailed tests to be concluded shortly.

\* Refer to ASX announcement 9 July 2018



## Phase 2 Trial Mining – Key Parameters

- Tonnage to be mined : 8,000 tonnes - hard rock.
- Hard Rock Pits – Cobra North, Discovery.
- Processing: On site, crushing, washing and XRF/optical sorting.
- Projected recovered volume: +250,000 carats.
- Projected all up operating costs: <US\$2/ct.
- ✓ Crush size determined.
- ✓ Plant designed.
- ✓ Crusher, washing plant and sorter budgeted \$750,000 (2,000 tonne/month)



Excavation of waste dump



Excavated waste dumps stockpiled for processing







## Phase 2 Trial Mining – Planned Timetable

### November 2018

- Select and purchase/lease sorting option
- Purchase refurbished cone crusher
- Fabricate/refurbish washing plant

### February 2019

- Commission plant and sorter
- Mine 8,000 tonne
- Commence treating 2,000 tonne per month

### June 2019

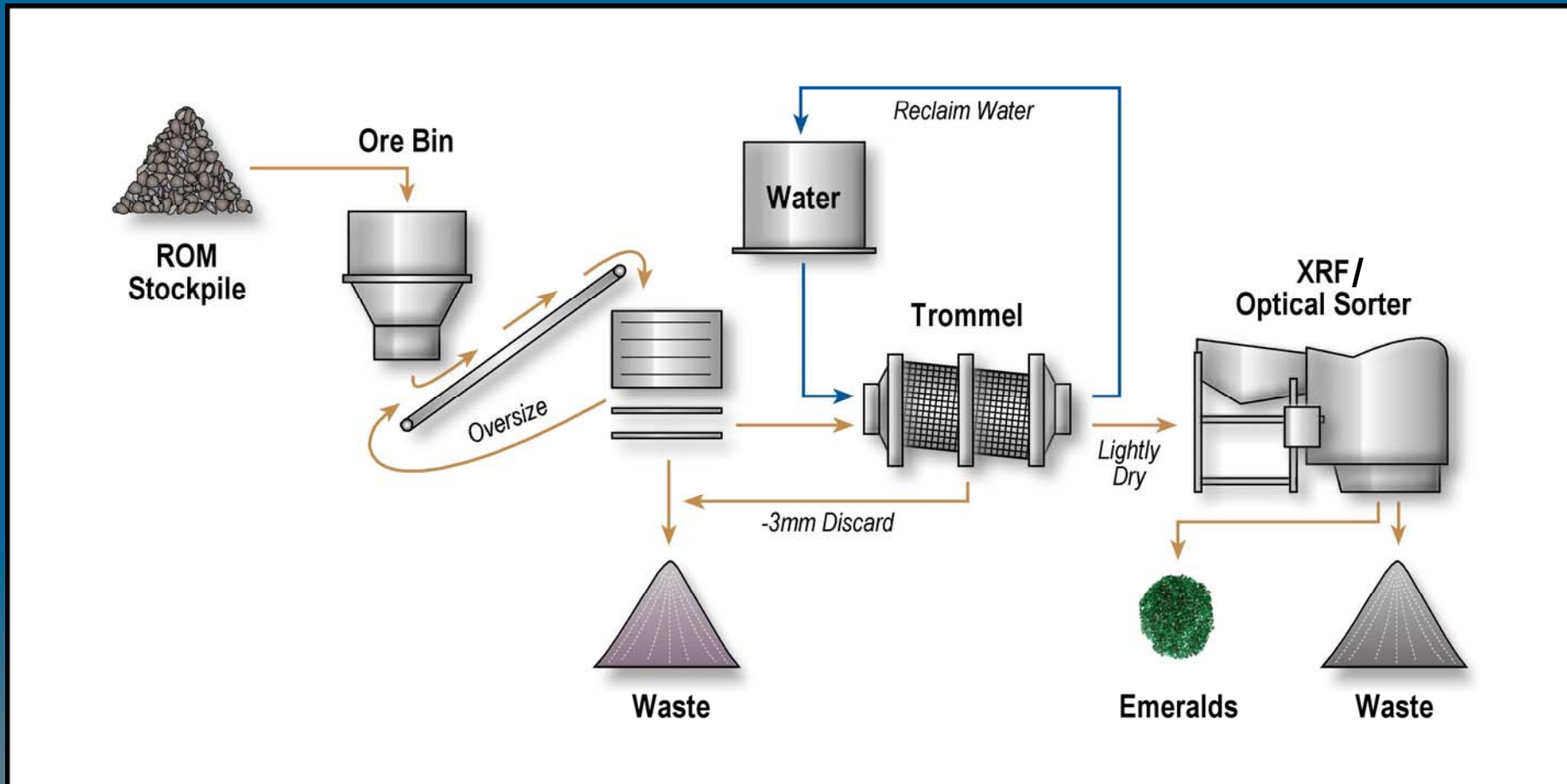
- Completion of processing 8,000 tonne
- Cleaning, sorting grading of emeralds commences

### August/September 2019

- Marketing of emeralds
- Auction of emeralds



# Phase 2 Trial Mining – Processing Flowsheet

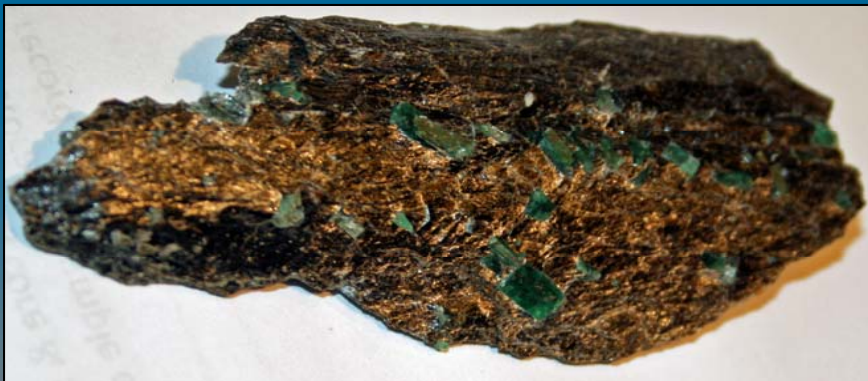






# Advanced Development Potential

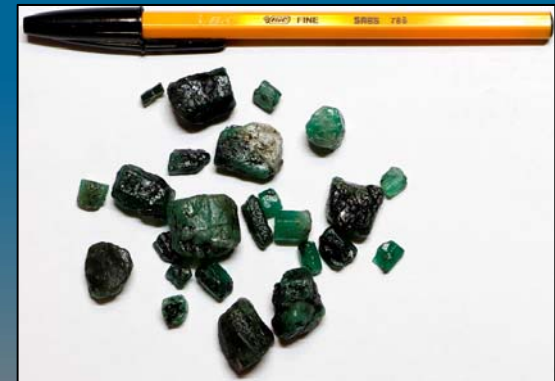
- Historic drilling and mining data confirms continuation of emerald grades and schist thickness at depth.
- Significant tailings opportunity situated onsite.
- Existing infrastructure.
- Historic Cobra and Discovery pits targeted for near term hard rock development.
- Sales and demand information from the sale of emeralds recovered from the Phase 2 Trial Mining will underpin commercial development decision.



Schist host with emeralds



41.5 carat emerald



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



## Extensive Infrastructure

- ✓ 55km from Phalaborwa and the Kruger National Park.
- ✓ Serviced by ESCOM grid power.
- ✓ Major sealed road to mine gate.
- ✓ Guest house, 17 x 3 bedroom houses, club house, and amenities.
- ✓ Mine offices, laboratory, admin offices and clinic.
- ✓ Workshop and garages.
- ✓ Mine hostel that can accommodate 350 mine workers.





## Gravelotte Summary

- ✓ Historic mining area
- ✓ Geology well known and understood
- ✓ Hard rock as well as tailings resource potential once economic values have been established
- ✓ Cobra branded emeralds well known in market place
- ✓ Existing infrastructure
- ✓ Granted Mining Licence and permits
- ✓ Simple pathway to commercial operations
- ✓ Reduced capex compared to green fields development
- ✓ Attractive economics
- ✓ In demand commodity
- ✓ South Africa open again for mining



## Issued Capital and Company Directors

- No. of Shares on Issue: 279,578,818
- No. of Unlisted Options: 9,000,000

### Directors:

Howard Dawson – *Non-Executive Chairman*

Grant Button – *Chief Executive Officer*

Francesco Cannavo – *Non-Executive Director*



# Magnum Summary

- Phase 2 Trial Mining to commence in early 2019.
- Near term production opportunities.
- Tight company structure.
- Parcel of emeralds to be produced will provide feedback on demand and value of emeralds.

*The information in this presentation 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 presentation of the matters based on his information in the form and context in which it appears.*