BACKGROUND INFORMATION DOCUMENT

MIGHTY FORTUNE TRADING (PTY) LTD

Prospecting Right Ref: KZN30/5/1/1/2/10931PR

Prospecting Right and Environmental Authorisation for the

Proposed Mighty Fortune Trading (PTY) LTD Project

Geopoint Africa (pty) ltd
18 Biccard Street
Polokwane
0699

P.O Box 581
Bendor
0713

Tel: 015 291 2341
Fax: 0866056763
Email: martha@geopointafrica.co.za
Website: www.geopointafrica.co.za

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EXPLORATION | MINING | BENEFICIATION

PURPOSE OF THE DOCUMENT

The purpose of this Background Information Document (BID) is to consult with lawful landowner(s) and all Interested and Affected Parties (I&APs) of the proposed prospecting project and to provide the I&APs with the opportunity to receive information, provide comments, and to raise any concerns related to the prospecting right application process as required.

INTRODUCTION

Mighty Fortune Trading (PTY) LTD submitted an application for a Prospecting Right and an Environmental Authorisation in order to prospect for coal. The application for the Prospecting Right was given provisional acknowledgement by the Kwa-Zulu Natal Province Department of Mineral Resources on the 22nd of October 2019. The aim of the proposed project is to explore and quantify the potential coal reserve. In order to undertake prospecting activities, Mighty Fortune Trading (PTY) LTD requires a granted Prospecting Right (PR) in terms of the Mineral and Petroleum Resources Development Act (MPRDA, Act No.28 of 2002). Mighty Fortune Trading (PTY) LTD is also required to obtain an Environmental Authorisation (EA) in terms of the National Environmental Management Act (NEMA, Act No. 107 of 1998) which requires the submission of a Basic Assessment Report (BAR) and an Environmental Management Programme (EMPR). Geopoint Africa (Pty) Ltd has been appointed by Mighty Fortune Trading (PTY) LTD as the Environmental Assessment Practitioner (EAP) to assist in complying with these requirements.

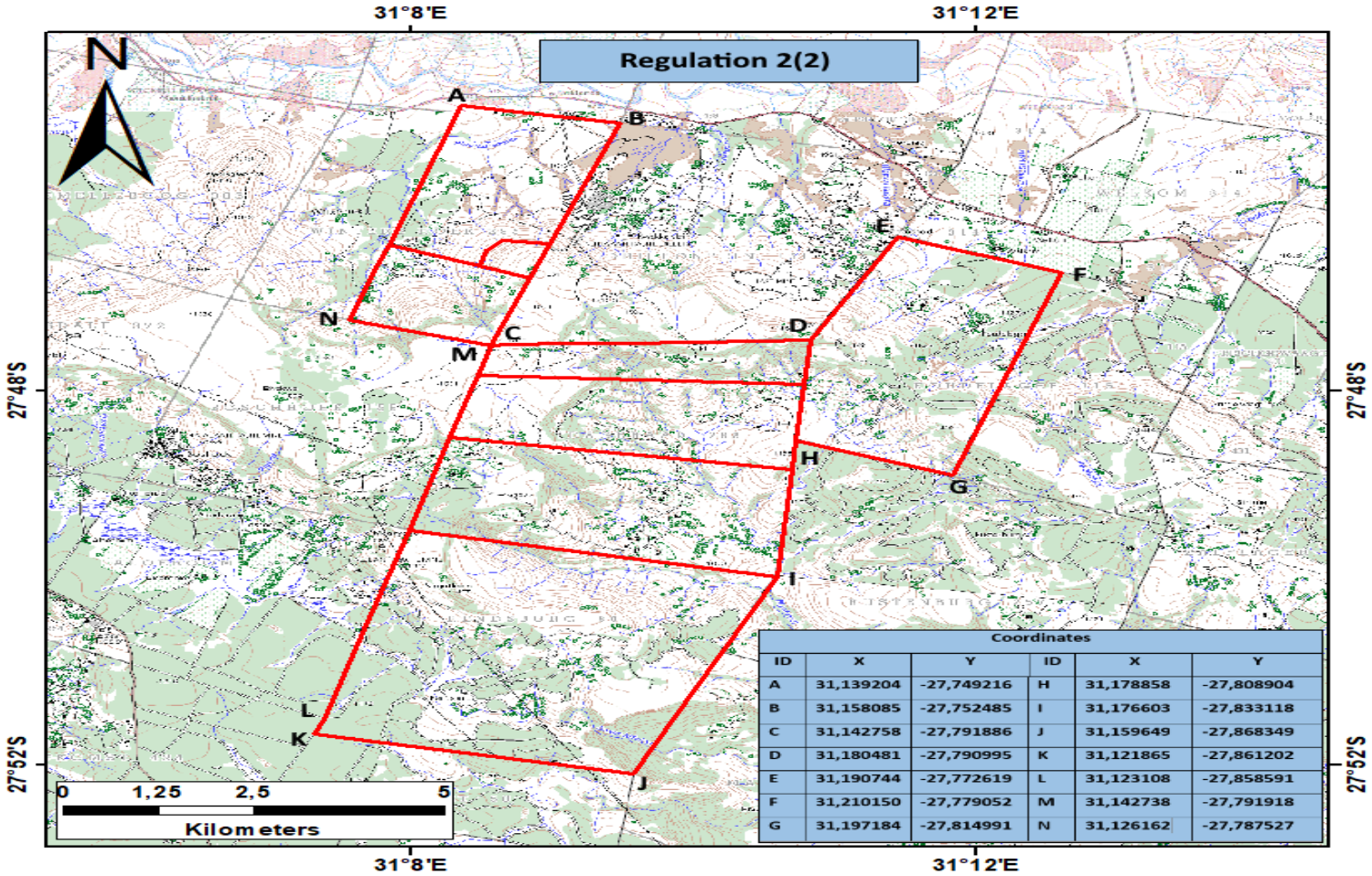
AIM OF THE BID

This document aims to provide the following:

- To provide background information to landowners and interested and affected parties (I&APs) on the proposed prospecting activities and the legal framework.
- To give an overview of environmental baseline information and environmental impacts that may potentially occur.
- To explain the Public Participation Process (PPP) to be followed.
- To consult stakeholders and provide them the opportunity to register as I&APs.

LOCALITY

The area of interest is approximately 5 255.43Ha and is 35km east of Vryheid. The proposed prospecting area is located within the Vryheid Magisterial District. Figure 1 below indicates the locality map.



Coordinates					
ID	X	Y	ID	X	Y
A	31,139204	-27,749216	H	31,178858	-27,808904
B	31,158085	-27,752485	I	31,176603	-27,833118
C	31,142758	-27,791886	J	31,159649	-27,868349
D	31,180481	-27,790995	K	31,121865	-27,861202
E	31,190744	-27,772619	L	31,123108	-27,858591
F	31,210150	-27,779052	M	31,142738	-27,791918
G	31,197184	-27,814991	N	31,126162	-27,787527

Figure 1: Locality Map of Dageraad 288HU portions 0, 1 & 2, Rendsburg 80HU portions 0, 1 & 3, Kouderlager 115HU portion 0 and Wintershoek 295HU portons 0, 1 & 3

THE NEED FOR THE PROJECT

The proposed mineral to be mined is coal with the purpose of supplying it to local, regional and international customers. Coal dominates South Africa's indigenous energy resource base. It provides approximately 77% of South Africa's primary energy need. This is unlikely to change anytime soon because there is a lack of a suitable alternative to coal as an energy source. Many of the deposits can be exploited at relatively favourable costs and as a result, a large coal mining industry has developed. Approximately 28% of the country's coal production is exported.

This project will not only benefit the company but the community as well. The project will contribute to the economic development in the Local Municipal area. This is because:

- The project has the potential to improve the living standard of people residing within and around affected communities by offering job opportunities for the locals and will therefore alleviate poverty. The jobs created would change their lives for the better, they shall be given an opportunity to gain experience within the prospecting sector of the mining industry and earn an income.

LEGISLATIVE REQUIREMENTS

The prospecting right application is subjected to the following Acts:

- The Mineral and Petroleum Resources Development Act, 2002 (act no.28 of 2002) ("MPRDA"). In terms of the MPRDA, the application for a prospecting right is subject to an application for an environmental authorisation in terms of NEMA.
- NEMA GN 983, Listing Notice 1, Activity Number 20: Any activity including the operation of that activity which requires a prospecting right in terms of section 16 of the MPRDA (Act No. 28 of 2002), including associated infrastructure, structures and earthworks, directly related to the prospecting of a mineral resource, including

activities for which an exemption has been issued in terms of section 106 of the MPRDA.

BASIC ASSESSMENT PROCESS

The Basic Assessment (BA) Process is a tool used to obtain an objective view of the potential impacts of a proposed project including environmental, social and economic impacts. A BAR is compiled as part of the Prospecting Right Application to ensure that potential impacts associated with the proposed prospecting activity are identified, considered and mitigated. It is intended to supply the competent authority with sufficient information to make an informed decision in granting or refusing an environmental authorisation associated with the prospecting right application.

The Basic Assessment Report will encompass the following:

- Description of the local environment including environmental conditions, historic and cultural aspects and socio economic conditions,
- Identification and assessment of the significance of potential impacts of the proposed prospecting activities on the local environment,
- Evaluation of the proposed mitigation and management options available to minimise any negative impacts and to enhance any positive impacts,
- A record of any issues, comments and concerns raised by I&AP's and minutes of any meetings held with stakeholders.

The BA can be described as two interlinked processes which result in a BAR. Namely the Technical Process and the Public Participation Process:

I. **Technical process involves** :
   - ✓ Submitting an Application form to the DMR via online portal;
   - ✓ Compiling the Draft BAR
   - ✓ Submit the Drat Bar to the DMR and I&APs for comment
   - ✓ Incorporate comments into final Draft BAR
   - ✓ Submit final BAR to the DMR

II. Public participation:

Public input is an important legislated requirement of the prospecting right application process. The proposed PPP for this study will include a number of steps, as listed below:

- ✓ Issuing notification of this proposal to:
  - ❖ Owners and occupiers of the farms as well as those adjacent to the site;
  - ❖ The municipal councillor and local taxpayers association;
  - ❖ The municipality which has jurisdiction;
  - ❖ Any organ of the state having jurisdiction;
- ✓ Placing an advert in a local newspaper;
- ✓ Placing a notice on the site;
- ✓ Meetings with landowners and key I&APs, as required; and
- ✓ Public review of the BAR.
- ✓ Documenting stakeholder correspondence within the Draft BAR that will be made available for public review.
- ✓ Notifying the stakeholders when the final BAR is available for public review and the submission thereof
- ✓ Notifying stakeholders when the Environmental Authorisation is issued.

PROJECT DESCRIPTION

Invasive and non-invasive prospecting activities will be undertaken as part of the proposed Prospecting Work Programme. The main activities to be undertaken includes:

PROPOSED PROSPECTING ACTIVITY DESCRIPTION

PHASE 1: RESEARCH AND CONCEPTUAL DESIGN

Phase 1 is made up of the non-invasive prospecting methods. Activities are as follows:

- **Desktop studies**

A desktop study report was compiled by a team of geologists after thorough research was conducted. Previous geological reports and maps were used to compile as much information as possible on the occurrence of coal in the farm. The desktop study consists of the description of topography, climate, regional geology, geotechnical conditions and previous and current mining activities in the vicinity of the farm..

- **Reconnaissance**

After the Prospecting Right is granted, the team will make a reconnaissance visit to the farm to assess access roads, outcrops and other features such as waterbodies and vegetation which are essential in assisting the prospecting process. Casual workers, guards availability, weather patterns, fauna and flora in the project area and security issues will be looked at to assess and prepare working conditions on site.

PHASE 2: TARGET GENERATION

- Detailed geological mapping

An initial prospecting site plan of farm has been prepared whereby traverse lines were drawn in a direction perpendicular to the strike direction of rocks. The site plan consists of 17 traverse lines with a spacing of approximately 500m apart. The traverse lines are trending in a NNE-SSW direction and are ranging between 2 and 12 kilometres. The prospecting plan was prepared by a team of geologists in preparation for the actual field mapping. When mapping is completed a geological map and report will be compiled. Furthermore, different rock units on the map will be shown on the map to indicate where they are exposed on surface. The area will be divided into smaller sections to avoid mapping over huge areas at a time. Moreover, mapping that was done previously will be confirmed in a more detailed manner and to accuracy as it will be done on a smaller scale.

- Detailed rock-chip and soil sampling for geochemistry;

During mapping, samples exposed on surface will be collected in different locations within the project area. The samples of coal collected will weigh approximately 5kg each and will be packaged and labelled appropriately. The samples of coal collected will then be taken to the laboratory for assay analysis so as to determine the quality and grade of the coal.

- Detailed geophysical surveys;

Ground magnetic survey will be conducted by geologists moving along traverse lines, which have been laid out on the prospecting site plane, of about 2-12km with spacing of approximately 200m. This survey will be used to provide further information on basement geological structures and to map out any bodies of igneous materials such as sills, dykes and lava flows that may occur within the area.

- Shallow pattern drilling/trenching for regolith or bedrock geochemistry and drilling aimed at increasing geological knowledge;

Phase 1 of drilling will comprise of points spaced at 5km away from each other to check for continuity of the seams. Drilling allows geologists to extract and examine sample core profiles at the surface with reduced environmental impact and lower costs. Diamond core drilling method will be applied as it is much faster and efficient and requires fewer labour hours. It is effective at creating precise holes with minimal damage to the surrounding, thus eliminating amount of debris and dust.

PHASE 3: TARGET TESTING

- **Infill drilling**

Infill drilling will be conducted between existing boreholes and will be spaced at 500m apart. At least twenty boreholes will be drilled, at depths determined by the lithology. The area has a very difficult terrain whereby the drill rig might

face challenges in accessing some of the planned locations. The location of the boreholes can be regarded as a rough estimation, therefore the actual coordinates will be made known to the department when finalized.

- **Trenching**

Trenches will be excavated where coal outcrops to establish characteristics such as thickness, continuity, strike and dip direction of the seams. Samples will be taken at shallow depths. After sampling, coal will undergo crushing and washing, then will be taken to laboratory for analysis whereby its metallurgical characteristics will be identified. Metallurgical characteristics of coal are determined by several factors such as moisture content, the amount of volatile content present in the coal, ash content, fixed carbon and the calorific value. For environmental purposes, coal is also tested for its Sulphur and Phosphorus content to know what measures should be taken during the combustion process.

PHASE 4: RESOURCE EVALUATION

In this phase, the coal seams will be modelled with a geological software. The geological, geophysical and geochemical data are all consolidated to produce the grade, structural deformities and intrusions present in the area. Moreover, the developed model will be used to define the ore tonnage and estimate indicated and proven reserves.

PHASE 5: MINING AND PRE-/FEASIBILITY STUDY

- **Mining studies**

From all the information gathered by geologists, mining engineers will be able to design mining plans best suitable for the area. This will also determine if mining will occur through open-pit or underground methods. If open pit, factors such as stripping ratio, bench sizes and type of machinery will be determined.

If underground, factors such as adit or shaft locations, support structures to avoid rockfall, and the type of machinery will also be determined. Mitigation strategies for other processes involved in mining will be developed. These processes include dust generation, noise pollution, topsoil removal and erosion.

- **Pre-/feasibility studies**

The feasibility study will cover many important factors including technical, economic, legal, operational and scheduling issues. This will include the cost of operation, if the project is in compliance with the law (environmental issues), how the operations will work and when it can be completed. Moreover, market research will be included so as to ensure there is demand for the coal.

In summary, feasibility studies will consist of the following:

- Cut-off grade optimization.
- Mining method and equipment selection.
- Mine access trade-off studies.
- Material handling trade-off studies.
- Capital and operating costs estimation.
- Mine economic cost modelling.
- Ore Reserve Reporting

POSSIBLE IMPACTS OF THE LISTED ACTIVITIES

The majority of impacts will be associated with the invasive prospecting stage of the project. The invasive prospecting is comprised of borehole drilling at various locations within the

Prospecting Area in order to determine the viability of any future mining operation. Impact assessment methods were developed to:

- ✓ Identify the potential impacts of a proposed development on the social and natural environment;
- ✓ Predict the probability of these impacts.
- ✓ Evaluate the significance of the potential impacts.

Impacts associated with listed activities:

I. **Waste Management**

All waste generated at the drilling site will be collected in plastic or steel drums and removed from site and disposed of at an appropriate waste facility. Hazardous waste will be collected and stored separately and disposed of at an appropriate facility. Chemical toilets will be provided for the employees and sewage will be disposed of at the nearest waste tip or sewage farm. Potential impacts associated with waste management on site include potential contamination of soil and surface water bodies with waste. If the appropriate mitigation measures are adhered to, including making use of portable toilets, buffering of sensitive landscapes, using reputable contractors and disposing of waste at a registered waste facilities the potential impact significance shall be low.

II. **Access roads**

The applicant will require access to the site for both personnel and machinery associated with prospecting activities. Existing routes will be used as much as possible and new access routes will be created only when necessary. Potential impacts associated with the creation and use of access roads include soil compaction, potential hydrocarbon contamination of soil, potential disturbance to wetlands and buffer zones (in instances where prospecting activity proceeds indiscriminately), generation of dust on gravel roads, emissions into the atmosphere through the use of diesel powered equipment, machinery and vehicles, increased noise levels and potential road degradation. However, with the appropriate mitigation strategies in place, including applying buffers to sensitive landscapes and using existing roads and access

tracks wherever possible, the significance of these potential impacts can be reduced to low/ moderate-low.

III. **Water Use**

Water required for the operation of the drilling rig as well as the potable water for domestic use will be brought in with a water bowser. The details of where the water will be sourced from and the amount required will be finalised at a later stage.

***NB: All the possible impacts will be discussed in detail during the public meeting.**

REHABILITATION

Upon completion of the drilling of each borehole, those that have production potential will be capped, while those with no potential will be sealed and closed. The site will be cleared of all incidental oils and chemicals. All imported materials with potential for contamination will be removed and disposed of at the nearest appropriate waste facility. The sludge pond created by the drilling operations will be pumped out and the mud disposed of at the nearest appropriate waste facility. The running surface of the drilling site will be scarified and the topsoil returned as and where it was removed. Vegetation establishment will be monitored and supplemented as necessary. All works and procedures will be conducted in terms of a written agreement with the land owner and communities. Rehabilitation of the boreholes will be undertaken as soon as drilling has been completed at each site.

DECISION MAKING BY THE COMPETENT AUTHORITY

The Department of Mineral Resources (DMR) is the competent authority in respect of both the NEMA and the MPRDA processes. Based on the information provided in the BA, the DMR will make a decision regarding the granting of the Prospecting Right authorisation. A Prospecting Right requires an approved environmental authorisation and technical and financial competence which will form part of the decision making for the Prospecting Right

application. I&APs will be notified and given direction and information about the appeals process once an Environmental Authorisation has been granted or rejected.

TIME FRAMES AND IMPORTANT DATES

The Draft BAR and EMP Report will be available as an electronic copy and will be made available for download via dropbox upon request.

In due course a public notice will be advertised within a local Newspaper that will inform I&APs about the public meeting date, venue and time.

I&AP's are invited to review the report and kindly submit any comments to Miss Martha Monoke by no later than the 15th of December 2019 using the contact details provided below.

GeoPoint Africa (Pty) Ltd

Contact person:	***Martha Monoke***
Email Address:	***martha@geopointafrica.co.za***
Fax Number:	***086 605 6763***
Telephone number:	***015 291 2341***
Postal Address:	***P.O. Box 581***
	Bendor
	0713
Physical Address:	***Office 18 Biccard Street***
	Polokwane
	0699

The I&APs Registration form to be used has been attached.

THIS SERVES AS YOUR INVITATION TO PROVIDE COMMENTS ON

THE PROPOSED COAL PROSPECTING PROJECT BY MIGHTY FORTUNE TRADING (PTY) LTD ON FARM DAGERAAD 288HU PORTIONS 0, 1 & 2, RENDSBURG 80HU PORTIONS 0, 1 & 3, KOUDERLAGER 115HU PORTION 0 AND WINTERSHOEK 295HU PORTONS 0, 1 & 3 LOCATED IN THE VRYHEID MAGISTERIAL DISTRICT, KWA-ZULU NATAL PROVINCE.

We appreciate your interest and participation in this process. If you have any issues, questions or concerns regarding this proposed activity, contact the following:

GeoPoint Africa (Pty) Ltd

Contact person:	Martha Monoke
Email Address:	martha@geopointafrica.co.za
Fax Number:	086 605 6763
Telephone number:	015 291 2341
Postal Address:	P.O. Box 581, Bendor, 0713

SHOULD YOU WISH TO REGISTER AS AN I&AP PLEASE COMPLETE YOUR CONTACT DETAILS BELOW. PLEASE WRITE NEATLY AND LEGIBLY.

NAME & SURNAME:	
ORGANISATION:	
POSTAL ADDRESS:	
TEL/ CELL NUMBER:	
E-MAIL ADDRESS:	

COMMENTS:

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