#### **BASIC ASSESSMENT REPORT & ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT**

PROSPECTING RIGHT APPLICATION FOR MANGANESE, NICKEL AND CHROME AT TWEEKOPPIESFONTEIN 143 KP ON RE OF PORTION 1, RE OF PORTION 2, PORTIONS 3, 4, 5 AND RE.SITUATED UNDER THE MAGISTERIAL DISTRICT OF MADIKWE, NORTH WEST PROVINCE.

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DMR Ref: NW 30/5/1/1/2/12710 PR

**DRAFT REPORT** 



# BASIC ASSESSMENT REPORT and ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

SUBMITTED FOR ENVIRONMENTAL AUTHORIZATIONS IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 AND THE NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT, 2008 IN RESPECT OF LISTED ACTIVITIES THAT HAVE BEEN TRIGGERED BY APPLICATIONS IN TERMS OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (MPRDA) (AS AMENDED).

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# **IMPORTANT NOTICE**

In terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002 as amended), the Minister must grant a prospecting or mining right if among others the mining "will not result in unacceptable pollution, ecological degradation or damage to the environment".

Unless an Environmental Authorisation can be granted following the evaluation of an Environmental Impact Assessment and an Environmental Management Programme report in terms of the National Environmental Management Act (Act 107 of 1998) (NEMA), it cannot be concluded that the said activities will not result in unacceptable pollution, ecological degradation or damage to the environment.

In terms of section 16(3)(b) of the EIA Regulations, 2014, any report submitted as part of an application must be prepared in a format that may be determined by the Competent Authority and in terms of section 17 (1) (c) the competent Authority must check whether the application has taken into account any minimum requirements applicable or instructions or guidance provided by the competent authority to the submission of applications.

It is therefore an instruction that the prescribed reports required in respect of applications for an environmental authorisation for listed activities triggered by an application for a right or a permit are submitted in the exact format of, and provide all the information required in terms of, this template. Furthermore, please be advised that failure to submit the information required in the format provided in this template will be regarded as a failure to meet the requirements of the Regulation and will lead to the Environmental Authorisation being refused.

It is furthermore an instruction that the Environmental Assessment Practitioner must process and interpret his/her research and analysis and use the findings thereof to compile the information required herein. (Unprocessed supporting information may be attached as appendices). The EAP must ensure that the information required is placed correctly in the relevant sections of the Report, in the order, and under the provided headings as set out below, and ensure that the information not cluttered with un- interpreted information and that it unambiguously represents the interpretation of the applicant.

# **OBJECTIVE OF THE BASIC ASSESSMENT PROCESS**

The objective of the basic assessment process is to, through a consultative process-

- a) determine the policy and legislative context within which the proposed activity is located and how the activity complies with and responds to the policy and legislative context;
- b) identify the alternatives considered, including the activity, location, and technology alternatives;
- c) describe the need and desirability of the proposed alternatives,
- d) through the undertaking of an impact and risk assessment process inclusive of cumulative impacts which focused on determining the geographical, physical, biological, social, economic, heritage, and cultural sensitivity of the sites and locations within sites and the risk of impact of the proposed activity and technology alternatives on these aspects to determine:
- e) the nature, significance, consequence, extent, duration, and probability of the impacts occurring to; and
- f) the degree to which these impacts—
  - can be reversed;
  - may cause irreplaceable loss of resources; and
  - can be managed, avoided or mitigated;
- g) through a ranking of the site sensitivities and possible impacts the activity and technology alternatives will impose on the sites and location identified through the life of the activity to
  - identify and motivate a preferred site, activity and technology alternative;
  - identify suitable measures to manage, avoid or mitigate identified impacts; and identify residual risks that need to be managed and monitored.

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# PART A

### SCOPE OF ASSESSMENT AND BASIC ASSESSMENT REPORT

# 1 Contact person and correspondence address

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c) Expertise of the EAP and R	c) Expertise of the EAP and Reviewer				

Please refer to Annexure B for qualifications and Curriculum Vitae.

# 2 Location of the overall activity

The following table presents the location and associated cadastral details associated with the area in question.

#### Table 1: Location of the prospecting area

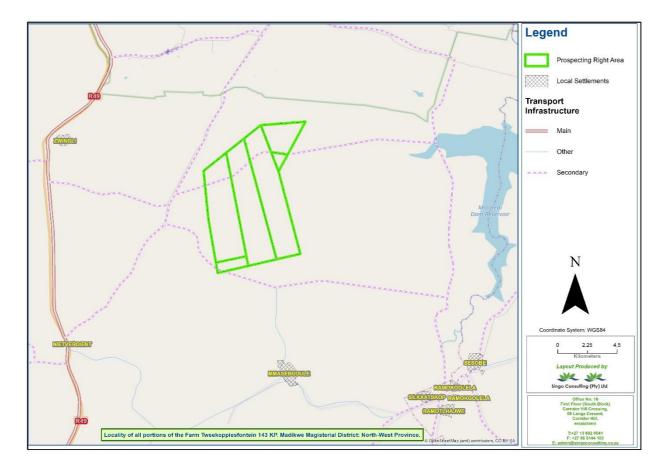
Application Area (ha)	5947.71 Ha	
Magisterial District	Madikwe	
Distance and direction from nearest town	North-West of Phalane, 74.09km North of North-East of Zeerust.	

#### Table 2: Property details

Farm Name & Number	Farm Portion	SG Code (s)
TWEEKOPPIESFONTEIN 143 KP	RE OF PORTION 1, RE OF	T0KP0000000014300000
	PORTION 2, PORTIONS 3,4,5 AND	T0KP0000000014300001
	RE.	T0KP0000000014300002
		T0KP0000000014300003
		T0KP0000000014300004
		T0KP0000000014300005

#### Locality Map

(Show nearest town, scale not smaller than 1:250,000)



#### Figure 1: Locality of proposed site project

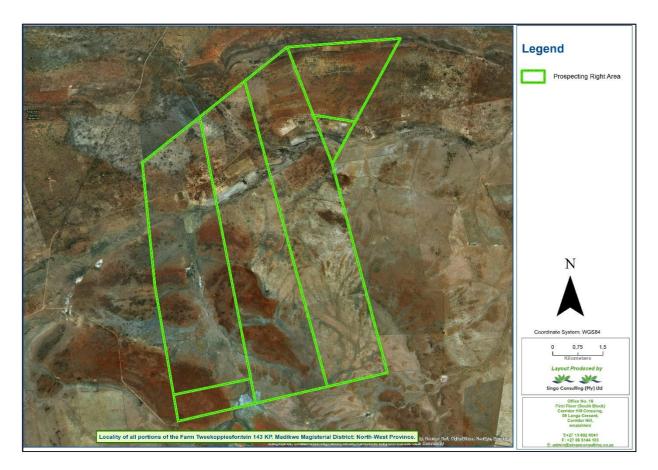


Figure 2: Aerial photo of proposed area

The area is close to Madikwe Nature Reserve on the north at approximately 20km away. The boundary is close to the three Gravel roads with one of the gravel roads passing between the northern boundaries of the prospecting right area. An R49 route is located at approximately 22.5km west of the project area. The project area is approximately 26.4km North West of Loubsersrus. The project is close to the Molatedi Dam with a non-perennial river that pass through the project area boundary towards the north. Few farmhouses were noticed with the boundary of the project area and the area is mostly natural with no major cultivations or grazing occurring, apart from the nature reserve. The area is close to zeerust chrome mine which is located at approximately 5.81km southwest of the prospecting area.

# 2.1 Description of the scope of the proposed overall activity

Provide a plan drawn to a scale acceptable to the competent authority but not less than 1: 10,000 that shows the location, and area (hectares) of all the aforesaid main and listed activities, and infrastructure to be placed on site.

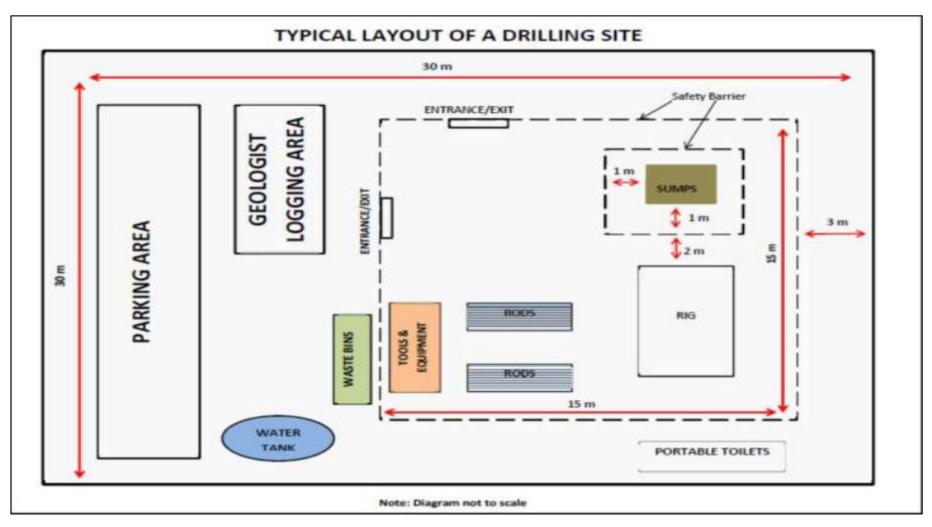


Figure 3: Typical drilling activity layout

The area's detailed geology and the potential of Manganese, nickel and chrome is well-known. As such, exploration work will commence from a very advanced level. The Prospecting Work Programme (PWP) was designed in phases, each phase conditional on the success of the previous phase. These phases include:

#### 2.1.1 Phase 1: Data acquisition and a desktop study

A desktop study of all available data for the area was undertaken to accumulate as much regional and historical data around the area as possible. This include published geological reports, infrastructure mapping, satellite imagery and existing geophysical information. Many sources have been used to consolidate this report.

#### 2.1.2 Phase 2: Drilling

Targets that have been prioritised through detailed desktop studies will be tested by initial diamond or percussion drilling. Should the initial evaluation of the deposit indicate a sufficient size and grade, bulk sampling may be required. In this event, the PWP has already covered this activity and current Environmental Authorisation Process does not include bulk sampling. Should bulk sampling required then an amendment of the EA Authorisation will be applied. The activities associated with the PWP will be scheduled over a period of five years, as detailed in the following table.

Phase	Activity	Skills	Timeframe	Outcome	Outcome timeframe
1	Acquire historical geological/ exploration data over area applied for and surrounds	Geologist	6 months	<ul> <li>Compile data</li> <li>Refine exploration strategy</li> </ul>	6 months
2	Drilling (5 boreholes)	Geologist	6 months	Drilling to test for Manganese, Chrome and Nickel ore.	6 months
3	Drilling (5 boreholes based on phase 1 drilling results)	Geologist	30 months	<ul> <li>Assess what further work is warranted.</li> <li>Amend PWP</li> </ul>	24 months
4	Analytic stage EIA and Mining Right Application (MRA)	Geologist, Environmentalist	30 months	<ul> <li>Feasibility studies</li> <li>Resource statements</li> </ul>	24 months

#### Table 3: Prospecting timeframes and activities

As is clear from the information provided in Table 3, each of the phases is dependent on the results of the preceding phase. The location and extent of drill sites and possible diamond drilling cannot be determined at this stage and, as such, mapping of the prospecting activities could not be undertaken. In the subsequent sections (Part B) more details are provided in terms of each of the prospecting activities. The applicant must submit a plan indicating the location of drilling activities, once these areas have been finalised, to at least all landowners, as well as the DMR and the Department of Water and Sanitation (DWS).

# 2.2 Listed and specified activities

Section 16 of the Mineral and Petroleum Resources Development Act (MPRDA), 2002 (Act No.28 of 2002) requires, upon request by the Minister, that an Environmental Management Plan (EMP) be submitted and that the applicant must notify and consult with Interested and Affected Parties (I&APs). Section 24 of the National Environmental Management Act (NEMA) requires that activities, which may impact the environment, be authorised by a relevant authority before commencing with the activities. Such activities are listed under Regulations Listing Notice 1 Government Notice (GN) 983, Listing Notice 2 GN 984 and Listing Notice GN 985 (dated 4 December 2014) of the NEMA. The proposed prospecting activity triggers the following:

# NEMA Government Notice 983: Listing Notice 1

Activity 20: "Any activity including the operation of that activity which requires a prospecting right in terms of section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource..."

Activity 27: "The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation..."

Please refer to Table 4 for the details in terms of the listed activities.

NAME OF ACTIVITY	Aerial extent of the Activity Ha or m <sup>2</sup>	LISTED ACTIVITY	APPLICABLE LISTING NOTICE	WASTE MANAGEMENT AUTHORISATION
(E.g. For prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route etc. E.g. for mining, excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.)		(Mark with an <b>X</b> where applicable or affected).	(GNR 983, GNR 984 or GNR 985)	(Indicate whether an authorisation is required in terms of the Waste Management Act). (Mark with an X)

### Table 4: Prospecting timeframes and activities

The demarcated working area per site is 00 m <sup>2</sup> (900 m <sup>2</sup> per drilling site based on a 30m x 30m grid) The total area to be disturbed per site is 900m <sup>2</sup> (900 m <sup>2</sup> X 10 boreholes = 9000 m <sup>2</sup> or 0.9 Ha	900m <sup>2</sup> *10=9000m <sup>2</sup> 9000m <sup>2</sup> /10 000= 0.9Ha. Thus only 0.9Ha will be disturbed from the total hectors of 5947.71Ha.	X	GNR 327 Listing Notice 1, Activity 20.	Not required
Therefore 0.9 ha of 5947.71ha will be affected in the process of drilling Vegetation clearing			Not Listed	
Site camp	900 m <sup>2</sup>		Not Listed	
Drilling	0.5ha		Not Listed	
Equipment storage	50 m <sup>2</sup>		Not Listed	
Site offices	40 m <sup>2</sup>		Not Listed	
Ablution facilities	30 m <sup>2</sup>		Not Listed	
Sample storage	40 m <sup>2</sup>		Not Listed	

# 2.3 Description of the activities to be undertaken

Describe methodology or technology to be employed, including the type of commodity to be prospected/mined and for a linear activity, a description of the route of the activity.

The following section presents a detailed description of all the activities associated with the proposed Prospecting Application. Due to the nature of the PWP and the fact that the specific prospecting activities depend on the preceding phase, assumptions are presented where required. These assumptions are based on similar projects undertaken by the applicant and therefore be regarded as indicative of what will be undertaken.

### 2.3.1 Access roads

Site access will be required during hole pegging and drilling activities (Phase 2 and 3). Access requirements can only be determined after Phase 1 has been concluded. A number of existing roads and tracks already traverse the proposed prospecting site and, where practicable, these roads will be used. During pegging activities, vehicles will access the site through the existing road. Establishing a track to gain repeated access to a borehole site will not be required. Once drill sites have been identified, temporary access roads may be established for repeated access to the drill site if the identified drill site cannot be accessed via existing roads and tracks. The proposed area has multiple of access roads that can be used.

### 2.3.2 Water supply

The prospecting activity will involve drilling of boreholes and air flush drilling is preferred by the applicant. This signifies that no water resource will be used for the purpose of drilling purpose

however, water requirements relates to the potable water supply for employees and workers. A temporary 260 L on-site vertical water storage tank (for drinking water and general use by persons) will be provided at the drill site.



Figure 4: Example of water storage tank

# 2.3.3 Ablution

On-site ablution facilities will include the installation of drum/tank-type portable toilets. This will be done because the prospecting activity is temporal for limited duration hence portable toilets is preferred.



Figure 5: portable toilets that will be adopted

# 2.3.4 Temporary office area

A temporary site office shaded area will be erected at the drill sites. No on-site electricity will be generated by generators. Meals will be provided to staff and workers as no heating and/or cold storage facilities will be available. A shaded eating area will be provided.



Figure 6: Temporary site office to be used

# 2.3.5 Accommodation

No accommodation for staff and workers will be provided on-site; all persons will be accommodated in nearby villages. Workers will be transported to and from the prospecting site on a daily basis. Night security staff will be employed once equipment has been established on site.

### 2.3.6 Blasting

There will be drilling, no trenching and no blasting will take place.

### 2.3.7 Storage of dangerous goods

During the drilling activities, limited quantities of diesel fuel, oil and lubricants will be stored on site. The only dangerous goods that will be stored in any significant quantity is diesel fuel. A maximum amount of 60 m<sup>3</sup> will be stored in above-ground diesel storage tanks.



Figure 7: Typical example of storing dangerous goods

### 2.3.8 Detailed prospecting activities

#### 2.3.8.1 Phase 1: Data acquisition and a desktop study

A desktop study of all available data for the area will be undertaken to accumulate as much regional and historical data as possible. This includes published geological reports, infrastructure mapping, satellite imagery and existing geophysical information.

#### 2.3.8.2 Phase 2: Drilling

Targets generated during the desktop study will be investigated on the ground and tested by initial diamond or percussion drilling. A drilling programme will be undertaken in order to delineate and give a preliminary assessment of the Manganese, Nickel and Chrome potential of the identified deposit. Should delineation and initial evaluation of the deposit indicate a sufficient size and grade to warrant further evaluation, an appropriate bulk sampling programme will be undertaken in order to establish grade and confirm its viability for mining.



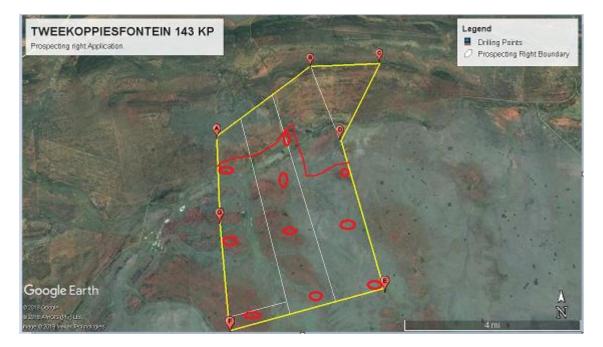


Figure 8: Drilling setting, equipment and drilling area plan

# 2.4 Policy and legislative context

Applicable legislation and	Reference	Development's compliance with and response to the
guidelines used to	where applied	policy and legislative context
compile the report		
Specific Environmental M	anagement Acts	(SEMAs)
National legislation		
National Environmental Management Act (NEMA), 1998	This Basic Assessment Report and Environmental Management Plan	An Application for Environmental Authorization was submitted to the North West DMR and the application was acknowledged.
National Water Act (NWA), 1998	Groundwater abstraction as part of drilling activities	As per Government Notices Regulation 399, the applicant may abstract 75m <sup>3</sup> of groundwater per ha per annum from the C33B Quaternary Catchment. This use will be generally authorized. The proposed drilling method won't hamper with National Water Act (NWA), 1998.
Mineral and Petroleum Resources Development Act (MPRDA), 2002	Application for prospecting as per Section 16	The applicant submitted a Prospecting Right Application to the DMR.
Municipal plans		
Commission on Restitution of Land Rights	Land claims	One of the key issues identified by the Commission on Restitution of Land Rights is the need to facilitate the land claims process. The request for a Land Claim Letter was e-mailed to Keabetswe Mothupi on the 1 <sup>st</sup> of November 2019. Feedback was then received on the 20 <sup>th</sup> of November 2019, see Appendix D.
Strategic Development Framework (SDF)	Alternatives	As per the Moses Kotane's plan, various strategies and policies must be adopted to ensure effective spatial development. As per Section 5.1 of the SDF, the municipality must provide alternative means of support to the rural population to decrease dependence on the environment and subsistence agriculture. As such, the following policies have been adopted: Maximize economic benefit from mining industrial, business, agricultural and tourism development within the
		area.
		Promote a climate for economic development.
		Improve public and investor confidence in the region through crime reduction and infrastructure development. The municipality was consulted so that the prospecting activity won't hamper with municipality's development plans. Mrs Dineo D. Lesejane who is under Town Planning in Moses Kotane Local Municipality was consulted on 26 November 2019 with the original municipality email address, utilized on the 19 <sup>th</sup> of November 2019.

CARA (Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983)	The conservation of soil, water resources and vegetation is promoted. Management plans to eradicate weeds and invader plants must be established to benefit the integrity of indigenous life. The prospecting activity ensure that disturbance to the environment is minimal and rehabilitation of the disturbed land is done.
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# 2.5 Need and desirability of the proposed activities

Motivate the need and desirability of the proposed development including the need and desirability of the activity in the context of the preferred location.

Prospecting activities do not offer many tangible benefits as it is the initial phase of mining. Prospecting precedes mining; however, it is during the prospecting phase that findings are established on whether the available reserves can be mined at an economic gain. It is understood that the mining plays a pivotal role in South African economy and boast a large labour force; hence a greater significance is placed on prospecting for realization of mining benefits.

Although prospecting activities are not labour intensive, few people will be hired to assist with general activities. The services required can also be sourced locally depending on their availability thus growing the economy of Moses Kotane. With the existence of Zeerust Chrome mine located near the prospecting area collaboratively with the geological information, the area has the potential of the Manganese, Chrome and Nickel ore resources. Niche Mining Resources 247 (Pty) Ltd intends to start mining after the prospecting right application has been granted. It is viable to prospect in the area as economic importance of the area is crucial to prove for the benefit of the community at Molatedi where the landowner resides.

### 2.6 Motivation for the overall preferred site, activities and technology alternative

### 2.6.1 Preferred site

As previously mentioned, Niche Mining Resources 247 (Pty) Ltd applied for prospecting right over the area in question. Based on the outcomes of the competitor study, the likelihood of encountering further Manganese, Chrome and Nickel ore reserves was identified. The site is therefore considered the preferred site as there's no information on the said site and viability of the area is crucial to know in order for extra jobs to be created as compared to jobs provided by Madikwe nature Reserve; alternative sites were not considered.

The site falls under the Rustenburg Layered Suite of the Bushveld Complex which contains mainly mafic rocks and is divided into a number of different zones. The marginal zone is found around the edge of the intrusion, while from the base of the complex up is the Lower Zone, the Critical Zone, the Main Zone and lastly the Upper Zone.

# 2.6.2 Technological and site activity alternatives

Due to the nature of the proposed prospecting activities, future land use alternatives will not be compromised and where activities of doing research at the upper areas of the proposed site will not be disturbed. Once a viable reserve has been confirmed, a comprehensive social and environmental impact assessment (EIA) will be required (in accordance with legislation), which will determine alternative land to mining. The technologies proposed have been chosen based on the long-term success of the company's prospecting history. The prospecting activities proposed in the PWP depends on the preceding phase, therefore no alternatives are indicated, but rather a phased approach of trusted prospecting techniques. The location of intrusive drilling activities will be determined during Phase 1 of the PWP. All infrastructure will be temporary and/or mobile.

# 2.7 Description of process followed to reach proposed preferred alternatives within the site

This section is about the determination of the specific site layout and the location of infrastructure and activities on site, having considered the issues raised by interested and affected parties (I&Aps) and the consideration of alternatives to the proposed site layout.

All drill sites were located after careful investigation of environmental sensitiveness of the project area hence all drill sites are located out of environmental critical areas. All environmental sensitive areas within the prospecting site will regarded as no-go areas and this will maintain the status quo of the area.

# 2.8 Details of the development footprint alternatives considered

With reference to the site plan provided as Appendix A and the location of the individual activities on site, provide details of the alternatives considered with respect to the:

- Property on which or location where it is proposed to undertake the activity
- Type of activity to be undertaken
- Design or layout of the activity
- Technology to be used in the activity
- Operational aspects of the activity
- Option of not implementing the activity

#### 2.8.1 The property on which or location where it is proposed to undertake the activity

Niche Mining Resources 247 (Pty) Ltd applied for Manganese, Chrome and Nickel ore resource prospecting on: Tweekoppiesfontein 143 KP On Re Of Portion 1, Re Of Portion 2, Portions 3,4,5 and RE, situated under the Magisterial District of Madikwe, North West province based on the existing knowledge of the geology of the area, desktop studies and knowledge of nature of occurrences of Manganese, Chrome and Nickel ore deposits in the area.

The site has been identified based on the knowledge of the above-mentioned deposits and such, no site alternatives have been considered for the proposed activities. However, the following buffers will be applied to the final site selection:

- No drill site will be positioned within 50m of a structure (i.e. for wetland-within 500m radius, 100m away from a stream/river).
- Existing access roads will be utilized to access the drill sites.

# 2.8.2 The type of activity to be undertaken

The technologies proposed have been chosen based on the long-term success of the company's prospecting history. The prospecting activities proposed in the PWP depends on the preceding phase, therefore no alternatives are indicated, but rather a phased approach of trusted prospecting techniques.

# 2.8.3 The design or layout of the activity

The preferred site layout is considered to ensure that break areas and ablution facilities are located away from the drilling activities to minimize the noise impacts. Site establishment are done with closure in mind to ensure that only the required size is disturbed. Due to the location of the proposed drilling (nearby towns will be used for accommodation), no camp site will be required. The drilling contractor may arrange accommodation within the farm with the farm owner.

# 2.8.4 The technology to be used in the activity

The method and techniques employed for the investigation of potential targets and deposits are suitable for the proposed prospecting activities. They have been selected based on their minimal invasiveness which is envisaged to have minimal impact on the receiving environment.

### 2.8.5 The operational aspects of the activity

Due to the nature of the prospecting activities, no permanent water supply, electricity, or sewerage facilities are required. The activities will commence with a desktop study, which will comprise a literature search. This approach will ensure that the client clearly delineates areas suitable for further investigation and prevent unnecessary surface disturbance.

Based on the outcomes of the desktop study, drilling and sampling of the above mentioned minerals will be undertaken for target areas only. Drilling and sampling is a low-impact exploration method in terms of environmental disturbance. After the preliminary exploration work, the anomalies identified will be ranked for exploratory drilling. Site activities as they relate to exploratory drilling, will comprise the establishment of the drill pad (drill pad clearing and compaction), drilling operations (drill maintenance, refuelling, core extraction and core storage) and rehabilitation activities (drill pad ripping and re-vegetation). No feasible alternative to the proposed exploratory drill methods currently exists. Impacts associated with the drilling operations will be managed through the implementation of a management plan, developed as part of the application for authorisation.

# 2.8.6 The option of not implementing the activity

Drilling is required to investigate the potential and feasibility of the resources as well as being used to generate a DMR compliant mineral resource statement. There is no potential for any future investment in a mine without the confirmation of the mineral resources which can only be obtained from drilling activities. Should the prospecting right be refused, effectively a potential Manganese, Chrome and Nickel ore resource development will be sterilized. The socioeconomic benefit and most notably the future employment potential of mine development will also be lost if the prospecting activities are not implemented to determine the feasibility of the above-mentioned deposit that occurs within the area.

# 2.9 Details of the public participation process followed

Describe the process undertaken to consult I&APs, including public meetings and one-on-one consultation. The affected parties must be specifically consulted regardless of whether or not they attended public meetings. Information to be provided to affected parties must include sufficient detail of the intended operation to enable them to assess what impact the activities will have on them or on the use of their land.

# 2.9.1 Identification of I&APs

The Basic Assessment Report was submitted for comment to the competent authority, commenting authorities, non-governmental organizations (NGOs), landowners, surrounding property owners and other identified stakeholders for review (see Table 5 for a list of identified stakeholders). Comments received were recorded and are reflected in this Final Basic Assessment Report.

(Please refer to Appendix C for the detailed public participation process and the Consultation Report). The following public participation has been conducted for the proposed project to date:

Identification of stakeholders, including occupiers of the property, owners and occupiers
of land adjacent to the site, municipal officials and relevant State Departments as part of
the Public Participation Process. All respondents are placed on the project database. The
database was used throughout the process to inform the stakeholders of the project.

# 2.9.2 Methodology of notification

To canvass the issues and concerns of the broader public and to ensure that all IAPs are afforded the opportunity to comment on the application, the proposed project was announced as follows:

- Erection of site notices, (size A3) advertising the proposed development and displaying the contact details of the EAP was prepared and displayed on-site and other public places. The site notices serve the purpose of informing potential I&APs of the project and therefore afford them the opportunity to comment.
- Distribution of the notification letter with a registration and comment sheet, and the locality map to state departments and other potential stakeholders through emails.
- An advert was placed in the Potchefstroom Herald newspaper on the 1st of November 2019 to notify the public about the Basic Assessment process, invite members of the public to register as I&APs on the project's database and notify the public of the availability of the Draft Basic Assessment Report.

# 2.9.3 Land claims

An email of consultation for land claims was sent to Keabetswe Mothupi on the 1<sup>st</sup> of November 2019 and a respond was received from Keabetswe Mothupi from DRDLR on the 4<sup>th</sup> of November 2019, stating that a formal respond with regards to the request will be sent through within the next 7(Seven) working days. Another email was sent to alert keabetswe about the claim results outstanding and she responded to say she is still waiting for the letter to be signed off on the 20<sup>th</sup> of November 2019. See attached



#### OFFICE OF THE REGIONAL LAND CLAIMS COMMISSIONER: HORTH WEBT Circ Jamas Musska and Skkame drive, West gallery, Megacity, MMARATHD Tec (2018) 398 700

#### Reference: R/7/04/11/2019 Enquiries: Kesbetswe Mothupi Tel: (018) 388-7220 / E-mail: kesbetswe.mothupi@drdir.gov.z8

By E-Mail: rudzani@singoconsulting.co.za

Dear R Shonisani

LAND CLAIM ENQUIRY: PORTIONS 3, 4, 5, REMAINING EXTENT, R/E OF PORTION 1 AND R/E OF PORTION 2 OF THE FARM TWEEKOPPIESFONTEIN 143 KP

I acknowledge receipt of your letter dated the 01st of November 2019 regarding the above-mentioned matter.

Kindly note that a formal response could be expected from our office within the next 7(seven) working days.

Should you however required any additional information, you can contact Ms K.W Mothupi at the above mentioned contact details.

Yours faithfully



WIR E-3 BOGATSU CHIEF DIRECTOR OFFICE OF THE REGIONAL LAND CLAIMS COMMISSIONER NORTH WEST PROVINCE DATE: 04/11/2019



OFFICE OF THE REGIONAL LAND CLAIMS COMMISSIONER: NORTH WEST Chr. James Moroka and Skatna Driva, Wasi Galery, Mega City, MMABATHO 2735 Tel: (1015) 388 7000/7008

Enquiries: Keabetswe Mothupi E-Mail: keabetswe.mothupi@drdir.gov.za Tel: 018 388 7220

By E-Mail: rudzani@singoconsulting.co.za

Dear R Shonisani

#### LAND CLAIM ENQUIRY – PORTIONS 3, 4, 5, REMAINING EXTENT, REMAINING EXTENT OF PORTION 1 AND REMAINING EXTENT OF PORTION 2 OF THE FARM TWEEKOPPIESFONTEIN 143 KP

We refer to your letter dated 01st of November 2019.

We confirm that as at the date of this letter no land claim appears on our database in respect of the above properties. This includes the database for claims lodged by 31 December 1998; and those lodged between 1 July 2014 and 27 July 2016 in terms of the Restitution of Land Rights Amendment Act, 2014.

Whilst the Commission takes reasonable care to ensure the accuracy of the information it provides, there are various factors that are beyond the Commission's control, particularly relating to claims that have been lodged but not yet gazetted such as:

- Some Claimants referred to properties they claim dispossession of rights in land against using historical property descriptions which may not match the current property description; and
- Some Claimants provided the geographic descriptions of the land they claim without mentioning the particular actual property description they claim dispossession of rights in land against.

The Commission therefore does not accept any liability whatsoever if through the process of further investigation of claims it is found that there is in fact a land claim in respect of the above property.

If you are aware of any change in the description of the above property after 19 June 1913 kindly supply us with such description so as to enable us to do further search.

Yours faithfully

HAR LJ, BOGATSU CHIEF DIRECTOR OFFICE OF THE REGIONAL LAND CLAIMS COMMISSIONER: NORTH WEST DATE: 2 DATE: 2 J (1) H H H J

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# 2.9.4 Traditional authorities

No traditional authority was identified around the prospecting area.

### 2.9.5 Municipalities

The project is located in the Magisterial District of Madikwe, under Moses Kotane Local Municipality and Bojanala Platinum District Municipality, North West province. The Municipality representative (Mrs Dineo. D Lesejane) under town planning was communicated with via e-mail enclosed with BID of the project.

### 2.9.6 Landowners and notification methodology

The landowner involved is a private farmer from Baphalane Ba Sesobe Communal Property Association. Singo Consulting (Pty) Ltd could not obtain contact details of the landowner through winded search (See Figure 9), however through the newspaper ad, the landowner was able to contact us and consultation email was sent enclosing a BID, Landowner Letter and Comment form to inform them about the proposed project. Meeting (face to face) was held with landowner on the 23<sup>rd</sup> of November 2019 at the farm place and at a garage approximately 10km away from the site (See Table 5 and Appendix D5). BIDs were presented again, and a landowner title deed was presented to the EAP by the landowner (See Figure 9). A formal respond was received on the 1<sup>st</sup> of December 2019 from Baphalane Ba Sesobe Communal Property Association as attached on Table 5 and Appendix D5. Advert was placed in the platinum weekly newspaper on 01<sup>st</sup> of November 2019 (see Figure 10 below).

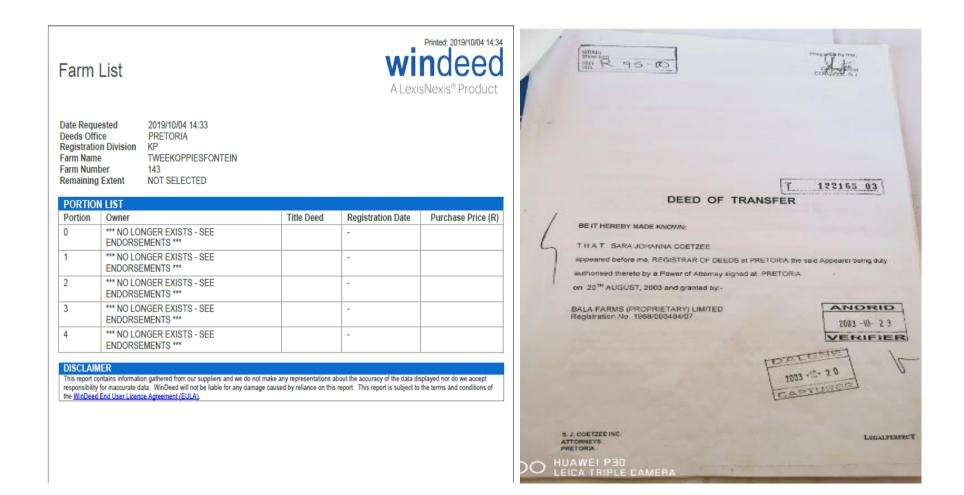
#### Table 5: Landowner engagement.











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Sec. 2

BAPHALANE BA SESOBE COMPLEME PROPERTY AUSOCIATION (DULY CONSTITUTED IN TERMS OF SECTION 80% OF THE COMMUNIC PROPERTY ASSOCIATIONS ACT, 1999 (ACT 30 CV 1990)

We associated in the or assigns in full and two property

REMAINING EXTENT OF PORTION 2 of the tone TWEEKGEPISSFORTED 545 REGISTRATION DIVISION & P. THE PROVINCE OF NORTH WEST

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AND SUBJECT FURTHER to such conditions as are mentioned or referred to in the sforesaid Dead.

 PORTION 3 OF THE FARM TWEEKOPPIESPONTEIN 143 REGISTRATION DIVISION K.P., THE PROVINCE OF NORTH WEST

IN EXTENT 1 579 4249 (ONE FIVE SEVEN NINE COMMA FOUR TWO FOUR SIX) HECTARES

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AND SUBJECT FURTHER to such conditions as are mentioned or referred to in the aforesaid Deed/s.

S. J COETZEE INC ATTORNEYS OF TUAWEI P30 LEICA THIPLE CAMERA

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#### OO HUAWEI P30 LEICA TRIPLE CAMERA

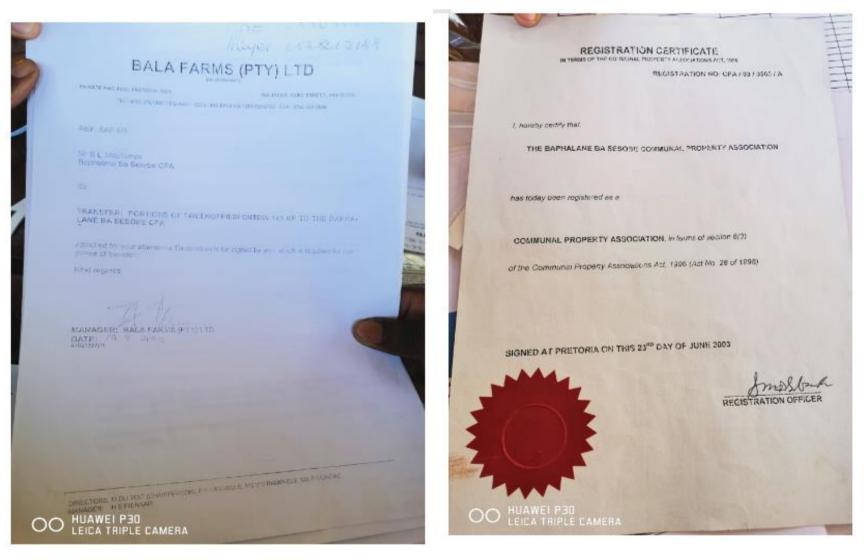


Figure 9: Landowner proof of ownership

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SNAP AWAY SHUTTERBUGS -mail: Fax: 011 252 6669, 014 592 3257, Tel Street, 9'S 20 PLATINUM WEEKLY Platinum Mark 2 NOVEMBER 2019,

Rustenburg – The Rustenburg Photographic Society is a passionate and informative group of photographers. Their aim is to create and maintain an active and developing photographic

60

stalls with unique décor, gifts, food and much

more.

s as well delicious breakfast and 1 4 

Rustenburg - A madhatter fun run will be hosted for the first time this year at the Platinum Mark.

Numera sum-numeration of the Gereformeerde kerk out Rustenburg Wes on the corner of Klopper Sc and Zand Street. Your entry will include a fai thun and adventurous route, water stations loi fun and adventurous route, water stations loi unmers to complete their runs and loads of family fun afterwards. There will be an 8km run with an entry fee of R00, 4km run for R40 and 2km run for R20. will start at 8:00 on Saturday 23 sr at the Gereformeerde Kerk

The club creates a platform where shutterbugs can gain knowledge and develop their skills. Members have the opportunity to share their work not only locally, but also internationally. During their monthly meeting on

community. The club

For more information, contact the event organisers Bertle on 079 560 8357 and Samantha on 082 495 2191. Join us for this family run and add a tittle colour and a whole lot of fun for everyone.

The church premises will open at 7:00. Also available at the event is a kiosk with

JOINT NOTICE OF PUBLIC PARTCIPATION FOR PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORIZATION APPLICATIONS

Notice of the Prospecting Right Applications Process as per the Minerals and Petroleum Resources

The society meets every third Wednesday of every month at the WG Proteapark at 18:30. For more information contact (blb chairperson Simon Fletcher on 082 371 9867 or vice chairperson Ronel Broderick on 082 451 2999.

Junior open category - Ilana Vrey with I C U.

Simon

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Senior open category

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Nednesday 16 October, winners were announced:

winners we

COMPANY	DMR REFERENCE	FARM NAME, PORTION & District	EAP	EAPs Contact details
Niche Mining resources 247 (Pty) Ltd	NW 30/5/1/1/2/ 12709 PR	All portions of the farm Zandfontein 124 JQ. under the Magisterial District of Rustenburg, North West Province	-	Livhuwani Sigwadi D13 692 0041/ 076 6529 092 livhuwani@ singoconsulting.co.za
Niche Mining resources 247 (Pty) Ltd	NW /5/1/1/2/ 12711 PR.	Farm In-Die-Kom 345 JQ, Situated under the Magisterial District of Bojanala, North West Province	÷	Livhuwani Sigwadi 013 692 0041/ 076 6529 062 livhuwani@ singoconsulting.co.za
Niche Mining resources 247 (Pty) Ltd	NW 30/5/1/1/2/ 12713 PR	All Portions of the farm Zilkaatsnek 439 JQ, in the Magisterial District of Brits, North-West Province	2	Takalani Rakuambo 013 692 0041/ 082 767 4011 takalani@singoconsulting. co.za
Niche Mining resources 247 (Pty) Ltd	NW 30/5/1/1/2/ 12712 PR	Portions 01 & 02 of the Farm Vaalboschlaagte 117 JP	2	Takalani Rakuambo 013 692 0041/ 082 767 4011 takalani@singoconsulting. co.za
Niche Mining resources 247 (Pty) Ltd	NW 30/5/1/1/2/ 12710 PR	RE of portion 1, RE of portion 2, portions 3,4,5 and RE of the Farm Tweekoppiesfontein 143 KP	e	Rudzani Shonisani D78 548 1244/ D13 692 0041 rudzani@singoconsulting.

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Linterested & Affected Party: In terms of Regulations 42 & 43 of the EIA Regulations overnment Notee No. 335 of 07 April 2017, the public is intrined by register as the feeted parties (I&AP9), express interest, comment and participate in the Public comment and participate in the Public common (PPP) respectively within 30-calendar days of publishing of this notices, until the control of the public sectively within 30-calendar days of publishing of this notices, until the control of the public sectively within 30-calendar days of publishing of this notices, until the control of the public sectively within 30-calendar days of publishing of this notices, until the control of the public sectively within 30-calendar days of publishing of this notices. Until the control of the public sectively within 30-calendar days of public sectively with the sectively within 30-calendar days of public sectively within 30-calendar days of publi

Figure 10: Proof of Newspaper Ad.

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interacting with 'Bongr' and 'Junior'. Learners from Nithebe, Machama, Segar and other primary schools in Rustenbur given lifte-saving safety messages duri

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00% of December 2019. DBAR & EMPR Review. The draft EMPr reports will be available for review for a 30 days calendar period from Monday, the 02<sup>w</sup> of December 2019 to Wednesday the 22 January 2020. The reports will be available on request, via email from the respective EAPs.

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ENVIRONMENTAL ASSESSMENT PRACTITIONER



















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Rustenburg -Tyres hosted

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Mr Wise

Niche Mining Resources 247 (Pty) Ltd Suth Downs Business Park Cnr John Voster and Neimapius Street, Centurion, Pretoria, Gauteng, 0046. Cell: 063 156 7734 [Email: miozis@nichemining.oz.az

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Hi-Q Rusten

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014 597 0550 Contact Hi-Q Rustenburg on

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- A copy of the Draft Basic Assessment Report will be available for public review for a 30-day review period from the 3 December 2019 – 22 January 2020 with an extension of days making a total of 58 days from the day of prospecting right acceptance letter and December timeframe inclusive.
- All comments that will be received during the review period of the draft Basic Assessment as well as responses provided will be captured and recorded within the Comments and Response Report in Appendix D.
- Once DMR has decided on Environmental Authorization, all registered I&APs will be notified of the outcome of the application.

The following have been identified as I&APs:

Names of I&APs	Organization	Position
Mr S L Maphunye of Baphalane Ba Sesobe Communal Property Association Miss Mpho Maphunye (Assistant of Mr S L Maphunye) Executive Committee: Chairperson – Lucas Phiri; Vice- chairperson – Lucas Phiri; Vice- chairperson – Tshotlego Mokoka; General Secretary – Thabo Mogalane; Deputy General Secretary – Mosebo Matlhatsi; Treasurer – Gregory Moatshe; Additional Members: Malapi Moatshe; Kgosietsile Mokoka; Peter Mothuloe; Phallo Mokoka; Letshaku Moatshe; George Moatshe; Vincent Mogale; Mpho Dimpane; Katlholo Diale; Lesego Mogapi	C.PA. (Bala Farms) [Tweekoppiesfontein 143 KP]	Landowner
Ms Dineo D Lesejane Mr Matome Makgoba	Moses Kotane Local Municipality	Town Planning Department
Ms Keabestwe Moremi	Office of Regional Land Claim commissioner	Administrative Officer: LMS RLCC NW: Mmabatho
Ms Keabetswe Moremi Mr Thomas Manda	North West Parks Board and Madikwe Nature reserve	Acting Head Conservation
ACJ Safaris, Riaan van Rensburg	RE of 143 KP and RE of: 1, 2 on the northern part of the applied area, Portion 5 and 3.	Lessee to Mr S L Maphunya of Baphalane Ba Sesobe Communal Property Association
Mr Pieter Ackerman	Department of Water and Sanitation	Chief Landscape Architect

#### Table 6: Identified stakeholders

Nemutandani t		Department of Water and Sanitation (DWS), South Africa Sub Directorate Instream Water Use.
Theunissec RamashalaL		
Enoch Cadace		Chief Directorate: Mine Water Management.
Mr Marlize	North West Agriculture	
Ms Junior Selwadi	Transnet North west	
Wayleaves North west, Mbengeni Tshidzumba	Eskom	
Ria Barkhuizen	Sanral	
Mildred Olefile	North West Provincial Government	
Omolefe	(Zeerust Chrome Mine)	
Information desk	Bojanalo District Municipality.	
Mosiane M Molefile	North West Provisional Government	
Mtladi	Department of Environmental Affairs	

# 2.10 Summary of issues raised by I&APs

Complete the table summarising comments and issues raised, and reaction to those responses

#### Table 7: Issues raised by stakeholders

I&APs List the names of persons consulted in this column. Mark with an X where those who mu be consulted were in fact consulted.	ust	Date comments received	Issues raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference In this report where issues and/or responses were incorporated
Affected parties		•	•	•	
Landowner/s					
Mr S L Maponya Assistance (Mpho Maphonya) Cell: 082 481 1109 alternative Cell: 076 992 0521 Email: <u>Mphomaphinya@ymail.com</u>	x	22/11/2019	My father together with Baphalane Ba Sesobe Communal Property Association is the landowner of the farm but the windeed search doesn't say anything. Community Participation Meeting must be undertaken after we have communicated with the chief.	On the 22/11/2019. A meeting was held with the owner at the farm and proof of ownership was given to the EAP. Date, venue and time is anticipated.	See Appendix D for full consultation/com ment forms
THABO MOGALANE General Secretary Baphalane ba Sesobe CPA P.O. Box 15		01/12/2019	caution that: 1.1 The farm is a sensitive farm because in terms of the farm plan, it is earmarked for ecotourism &	On the 4 <sup>th</sup> of December 2019, EAP registered Thbao as an I&AP of the project. at this stage, the processes that are	

		04/12/2019	In view of the fact that members of	Meeting arrangements are
		.,	Baphalane ba Sesobe CPA do not	anticipated for 2020 and insight
			come from one village but from	information was appreciated.
			_	information was appreciated.
			several villages, it's advisable that you	
			access them through general	
			meetings of the CPA not through the	
			royal house as referred to in the email	
			since the royal house route has a	
			limitation of enabling you to access	
			only one village instead of more or all.	
			2. The CPA Executive Committee is in	
			the process of arranging a general	
			meeting to be held in January 2020	
			and once all the arrangements have	
			been finalised, you'll be informed of	
			the date, venue and time so that you	
			and your client can attend and	
			address all the issues as raised in our	
			commentary.	
			3. Mpho Maphunye is not a member	
			of Baphalane ba Sesobe CPA	
			Executive Committee	
Land occupier			L	
TWEEKOPPIESFONTEIN RESEARCH RANCH	X	06/11/2019	Please can you confirm if you intend	On the 7 <sup>th</sup> of November 2019. Land
NPC			prospecting North of the gravel road,	Occupier was registered as
			that goes through the property from	interested or affected party.
			East to West?	The prospecting action is planned to
				take place on the boundary of the
				area applied.
				yes, the initial plan is to prospects
				also on the northern side of the
				gravel road as covered by the
	1			grateriou a cotorou og mo



# Company Reg No 2006/033807/08 VAT Reg No 4890190723 [Portions: Remaining Extent of portion 2, remaining Extent of portion 1, remaining extent, portion 3 and Portion 5 on the northern side of the gravel road]. Emails: riaan@acjsafaris.co.za

:Peggy@dieselelectricservices.co.za :kevin@dieselelectricservices.co.za



 Tel
 +27 11 493 7079

 Cell
 Undisclosed

 Fax
 +27 11 493 0282

 Address
 27/29 Mewett Street, Ophirton

 Email
 peggy@dieselelectricservices.co.za

 Web
 www.dieselelectricservices.co.za

		prospecting right application.	
		If ever there is restrictions, or the area in assigned for other activities or it's sensitive, thus it will be buffered out and no activities will take place there. Google earth maps were attached.	
19/11/2019	The section north of the sand road and the full area of Portion 1 (A) and (B) catchment area, Tweekoppiesfontein 143 KP are registered as a non-profit company's research area, namely, Tweekoppiesfontein Research Ranch NPC, Registration number 2006/033807/08, VAT number 4890190723. The research projects are: i) Brucella Abortus – in wild game buffalo ii) Brucella Melitensis – in wild game buffalo iii) Captive / intensive breeding of White Rhino iv) Captive / intensive breeding of Black Rhino v) Electronic detection of pathogens in mammals This entire research project is of a	On the 20 <sup>th</sup> of November 2019, the EAP was appreciative of the local knowledge you shared and upon accomplishing of the draft BAR will be sent during the review period ( 03 December 2019- 22 January 2020). if according to the studies, the area is protected, thus a recommendation will be made on the bar for the client not to conduct any activities on the area.	

		"sensitive" nature and would be detrimentally affected by any prospecting activities. This research area is used by multiple interested parties, including Pretoria University via student participation up to Doctorate level. How do we go about ensuring that this area is excluded from Prospecting / Mining?	
Adjacent Landowners/Occupiers			
Zeerust Chrome Mine	x		On the 1 <sup>st</sup> and 8 <sup>th</sup> of November 2019. A consultation email enclosing a BID, Comment form and Regulation map was sent to both email address, however no responds yet.
Omolefe@afarak.co.za	х		On the 8th of November 2019. A
info@afarak.com			consultation was made through
Matthew (Mine Manger)			phone call and email address to
Cell: 073 091 2754			both Madikwe admin and Mr

Madikwe Nature Reserve	x	25/11/2019	Proposed prospecting right area fall within the buffer of protected area (Madikwe Nature Reserve in terms of NEMPA) Comments will be provided during public participation meeting and after site visit has been conducted. Detailed comments will be directed to your office once all specialist studies and draft reports have been submitted.	Thomas Manda. On the 27th of November 2019. Madikwe was registered as an I&AP of the project. A draft prospecting right report will be shared with the office to make comments and thereafter a meeting will be scheduled.	
Tell: 081 350 9938 Thomas Manda Email: tmanda@nwpb.gov.za Madikwe					
madikweadmin@nwpb.gov.za Keabetswe Moremi Email: mkeabetswe@nwpb.gov.za					
North West Parks Board Municipalities					

Moses Kotane Local Municipality         An Initiative of:       Image: Colspan="2">Image: Colspan="2"         Moses Kotane Customer care       Image: CustomerCare@Moseskotane.gov.za'	x		01/11/2019. Consultation email was sent, however no responds yet.	See Appendix D for full consultation
Ms Dineo D Lesejane and 'Matome Makgoba' Tel: 018 264 8575 Email Address: DLesejane@moseskotane.gov.za and MMakgoba@moseskotane.gov.za	x		26/11/2019. A consultation email was sent however no responds yet.	
Bojanala District Municipality Bojanala Platinum District Municipality Info@bojanala.gov.za	x		01/11/2019. A consultation email was sent however no responds yet.	
		t may be affected. Roads Department, DWS, Eskom, et		
North West Provincial Government	x		01/11/2019. A consultation email was sent, however no responds yet	See Appendix D for full consultation.
Mosiane				
Email: 'mosianem@nwpg.gov.za'				
Molefile				

Email: molefile@nwpg.gov.za					
Setswambung					
Email: <u>BSetswambung@nwpg.gov.za</u>					
Tlegoete					
Email: <u>tlegoete@nwpg.gov.za</u>					
Department of Water and Sanitation	Х	01/11/2019	Email was forwarded to Charles( Mr	On the 1st of November 2019. A bulk	See Appendix D for
water & sanitation			Nemutandani) to register an I&AP.	consultation email was sent to the Water and Sanitation Officials.	full consultation.
Department: Water and Sanitation REPUBLIC OF SOUTH AFRICA				water and sanitation Officials.	
Tel: 012 336 7193					
'Ramashala Lethabo (HBP)'					
Email: <u>RamashalaL@dws.gov.za</u>	Х	06/11/2019	Register me as I&AP.	On the 7 <sup>th</sup> of November 2019. EAP	
				registered Mr Nemutandani as I&AP.	
Nemutandani Tendani					
Email: <u>nemutandanit@dws.gov.za</u>					
Email: <u>theunissec@dws.gov.za</u>					
			inter alia implement scientific buffers	Your recommendations shall be	
Pieter Ackerman		01/11/2019	between prospecting, mining, watercourses.	implemented and a buffer map will	
Email: <u>AckermanP@dws.gov.za</u>	Х			be produced to ensure that no	
				waterbodies are negatively impacted.	
				A draft report shall be sent to your	
				office upon commencement of	
				review so that you can comment on	
				the proposed project proceedings.	
				On the 19 <sup>th</sup> of November 2019, a	

	1		
			buffer map for the area was
			provided to Mr Ackerman.
Candace Enoch			On the 8 <sup>th</sup> of November 2019.
	Х		Consultation email was sent.
Email: <u>EnochC@dws.gov.za</u>			
Transnet			
TRANSNEF			On the 1st of November 2019.
			Consultation email was sent.
delivering freight reliably	Х		
Tell: 011 544 9750			
Junior Sewluadi			
Juniorselwuadi@transnet.net			
North West Eskom			
	x	05/11/2019	• There is a 9-meter building On the 6 <sup>th</sup> of November 2019. Eskom
	^	00/11/2017	and the restriction on either was registered as an interested and
Eskom			side of the centre line of the
WayleavesNWOU@eskom.co.za			be adhered to in all future Comments were acknowledged developments. and noted to be adhered to upon

Mbengeni Tshidzumba	No construction work may be commencement of the prospecting
	executed close than 9meter on the grea,
Email: <u>TshidzDM@eskom.co.za</u>	from any Eskom's structure
	and supporting Mechanisms.
	All works within Eskom     review.
	distribution reserve area and
	servitude must be done in
	accordance with the
	requirement of the
	Occupational Health and
	Safety Act (No.85 of 1993) as
	amended.
	The Applicant and Eskom
	cables must be placed in
	sleeves encased in concrete
	across the width of the
	servitude at the applicant's
	expenses where frequent
	excavation occur in the
	<ul><li>cable area.</li><li>Eskom distribution shall not be</li></ul>
	Eskom distribution shall not be     liable for the death of or
	injury to any person or for the
	loss of or damage to any
	property whether as a result
	of the encroachment or of
	the use of the area where
	Eskom distribution has its
	services by the applicant,
	his/her agent, contractors,
	employees, successors in title
	and assigns.
	The Applicant indemnifies
	Eskom's against loss, claim or
	damages including claims
	pertaining to interference
	with Eskom distribution
	serviced or apparatus or
	otherwise. The applicant's
	attention is drawn to section
	27 (3) of the electricity act

1987, as amended in 1994,
which stipulates that the
applicant can be fined and
or imprisoned as a result of
damage to Eskom's
apparatus
No mechanical equipment,
including mechanical
excavators, high lifting
machinery and drilling
equipment, may be used
within Eskom's reserves area
or within close proximity of
Eskom's equipment's, without
prior permission in writing and
supervision of Eskom's
authorised area manager of
the NWOU.
Permission must be obtained
at least 10 working days prior
to the commencement of
any work within the reserve
area.
<ul> <li>Eskom distribution shall at all</li> </ul>
time have unobstructed
access to and egress from its
services.
It shall be required to the
applicant to familiarise
him/herself with all Safety
hazards related to electrical
plant.
Eskom's consent will not
relieve the applicant from
obtaining the necessary
statutory, landowner or
municipal approvals (Eskom is
not the landowner).
Any third-party servitudes
encroaching on Eskom
servitudes shall have to be

Land Restitution Commissioner	x	26/11/2019	There is no land claim on the requested area.	On the 1 <sup>st</sup> of November 2019, a land claim enquiry was made.	
Keabetswe W Mothupi					
Administrative Officer: IMS					
RLCC NW: MMABATHO					
018 388 7220					
Rural, Environment and Agriculture Development Ifeedd Department: Rural, Environment and Agricultural Development North West Provincial Government REPUBLIC OF SOUTH AFRICA Marlize @agrinw.co.za	x			On the 12 <sup>th</sup> of November 2019. A consultation email was sent, however no responds yet.	
Sanral SANRAL DECARATION BUTTER ROADS Ria Barkhuizen nrstat@nra.co.za	x			On the 1 <sup>st</sup> of November 2019. A consultation email was sent, however no responds yet.	

Tell: 012 426 6242 Department of Environmental Affairs environmental affairs Performent affairs Republic of South Arrica Email: mtladi@environment.gov.za	x		On the 27 <sup>th</sup> of November 2019. A consultation email was sent, however no responds yet.	
Communities				
Community Meeting to be held with	Х			
(Molatedi Village)				
Other Interested &/or Affected parties				

### 2.10.1 Concluding remarks on stakeholder consultation

The main issue that was raised by I&Aps is that the area is under nature conservation and also that parts of the applied boundary is being used for Game ranch where students from various universities who are doing their postgraduate qualifications. The research projects are:

- i) Brucella Abortus in wild game buffalo
- ii) Brucella Melitensis in wild game buffalo
- iii) Captive / intensive breeding of White Rhino
- iv) Captive / intensive breeding of Black Rhino
- v) Electronic detection of pathogens in mammals

The landowner committee of Baphalane Ba Sesobe Communal Property Association made remarks on; The farm is a sensitive farm because in terms of the farm plan, it is earmarked for ecotourism & conservation. Already its 800 hectares are a game farm in partnership. Phase 2 of the game farming model, which is a remainder of Tweekoppiesfontein 143kp, has been placed on hold and the remaining portions 2 & 3 were also earmarked for wildlife farming but the project is not yet implemented which leaves a limited opportunity for mining under certain conditions which are; Baphalane ba Sesobe CPA be joined in the mining activities, All the general labour work be done by Baphalane ba Sesobe, Baphalane ba Sesobe be trained as miners, No permanent structures should be erected in order to allow for ease of rehabilitation at the end of the mining activity, Baphalane ba Sesobe to tender for business opportunities that may arise from the mining activity. Therefore, the project can commence on the area where no activities are currently occurring.

### 2.11 The environmental attributes associated with the alternatives

(The environmental attributed described must include socio-economic, social, heritage, cultural, geographical, physical and biological aspects)

Niche Mining Resources 247 (Pty) Ltd applied for Prospecting Right over the area of interest in the close vicinity Zeerust Chrome mine. Based on the outcomes of Zeerust Chrome Mine, the possibility of encountering further Manganese, Chrome and Nickel Ore reserves was identified on the property portions and is subject to this Prospecting Right Application.

The company applied for prospecting on the property portions as discussed in this report to determine the presence of Manganese, Chrome and Nickel Ore, whether they are feasible and justify further studies towards a Mining Right. No alternatives are available that will have an impact on a different setting than the environment discussion provided in the following.

# 3 Baseline environment

# 3.1 Type of environment affected by the proposed activity

Current geographical, physical, biological, socio-economic, and cultural character.

# 3.1.1 Topography

Topographically, the North West Province is indicated to have one of the most uniform terrains of all the provinces within South Africa. The topography of the northern region is more variable than that of the southern and western regions.

The topographical map of the proposed area is depicted as Figure 11 and the topography of the area is generally flat, consisting of grasslands with few trees and shrubs providing ideal game spotting conditions and grazing.

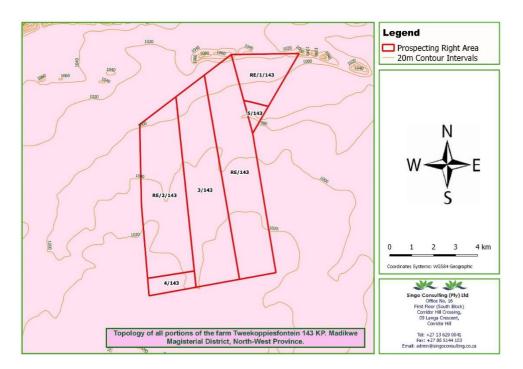


Figure 11: Topographical map of the proposed project site.

### 3.1.2 Climate

Climate is basically the statistics of weather conditions over long periods of time. It entails patterns of; temperature, humidity, wind, precipitation, atmospheric particle count in a region over long periods of time. The study area displays warm summers and cold winters typical of the North West climate.

The region is characteristic of quintessential Africa and forms part of the southern Kalahari Desert. The summer months (from August to March) bring brief but refreshing afternoon thundershowers. The area has an above average rainfall of 300 to 700 mm annually. Summer temperatures range between 22 and 34°C and winter brings with it dry, sunny days and chilly nights.

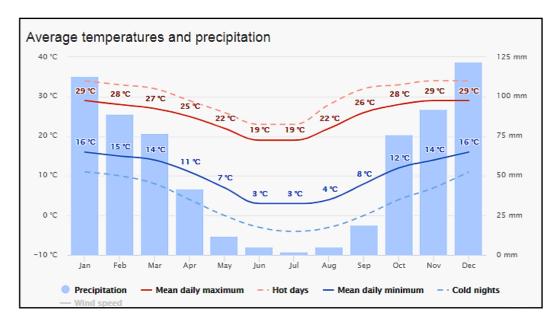
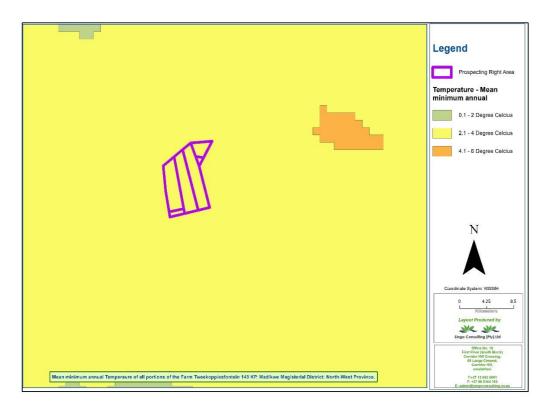
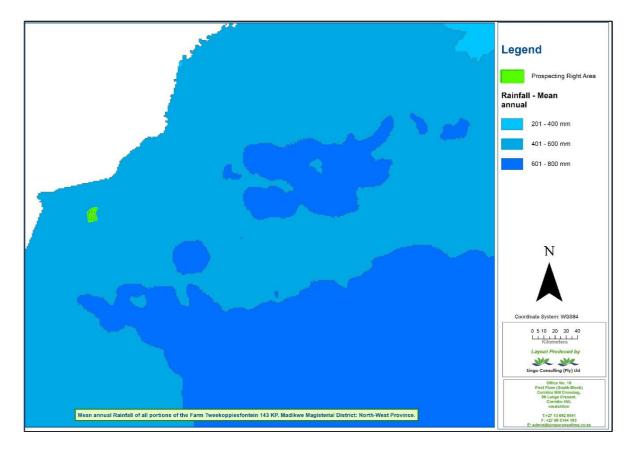


Figure 12: Average temperatures and precipitation of the project area.

The "mean daily maximum" (sold red line) shows the maximum temperature of an average day for every month for Moses Kotane. Likewise, "mean daily mininmum" (solid blue lie) shows the average minimum temperature. Hot days and cold night (dashed red and blue lines) show the average of the hottest day and coldest night of each month of the last 30 years.

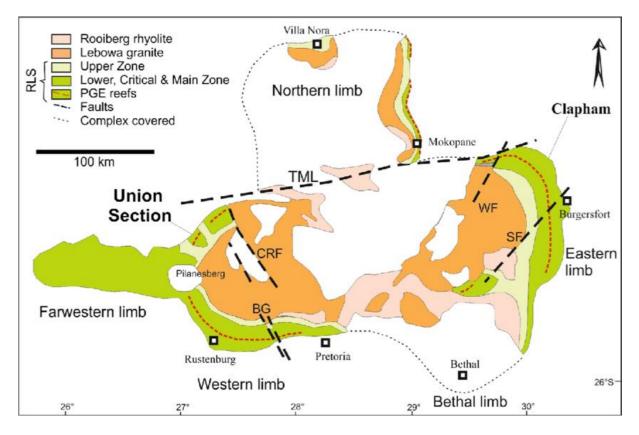




Rainy Season: It rains from October to April with the highest rainfall expected between November and February (401-600mm) and minimum of (201-400mm). Daytime temperatures are hot and humid with an average of 88°F (31°C). Dry Season: The winter months of May to September are dry and cold with evening temperatures as low as 35.5°F (2°C) and only 72°F (22°C) in the daytime.

### 3.1.3 Geology

The site falls under the Western limb of the Bushveld complex. The Eastern and Western Limbs are nearly identical in appearance, the major difference being that the Western Limb is underlain mostly by quartzite and the Eastern Limb by shale. The mineralisation is associated with the Critical Zone rock. The Merensky Reef and UG Reef host the platinum group mineralisation, whereas the lower group and middle group chromite seams are generally developed for ferrochrome production. The main zone rocks are also sourced as dimension stone. The granite rocks are host to fluorite deposits.



#### Figure 13: Geological Map of the Bushveld Complex, together with the Limbs.

The Bushveld complex was formed during a magnificent event. A series of surges led to the emplacement of magma on the surface as a result of alternating stress and pressure conditions in the earth's crust. Lava was forced into the interior of the southern African subcontinent, with the lava flow continuously fed from a central volcanic pipe. The lava crystallized and gave rise to different layers, which have been classified as the Bushveld Complex.

### The Bushveld Complex Geology

The Bushveld Complex, found in the northern part of South Africa, is the world's largest layered intrusion. The complex plays host to over half of the worlds platinum, chromium, vanadium and refractory minerals. The complex is early Proterozoic in age and consists of three large suites of intrusive rocks, occupying a total surface area of approximately 65,000km2, and is known for its enormous concentrations of magmatic ores, a variety of pegmatitic and hydrothermal deposits, as well as industrial mineral deposits formed by the metamorphism of the floor rocks of the Complex (Caincross and Dixon, 1995).

The four lithological units of the Bushveld Complex are:

- Rustenburg Layered Suite
- Rashoop Granophyre Suite
- Lebowa Granite Suite, and

### Rooiberg Group

The fourth suite, the Rooiberg Group of acid and basic volcanic rocks, was previously allocated to the Transvaal Supergroup (SACS,1980), but is now accepted to be an intergral part of the Bushveld Complex (Schweitzer *et al.*, 1995a, b).

### • Rustenburg Layered Suite

The Rustenburg Layered Suite contains mainly mafic rocks and is divided into a number of different zones. The marginal zone is found around the edge of the intrusion, while from the base of the complex up is the Lower Zone, the Critical Zone, the Main Zone and lastly the Upper Zone.

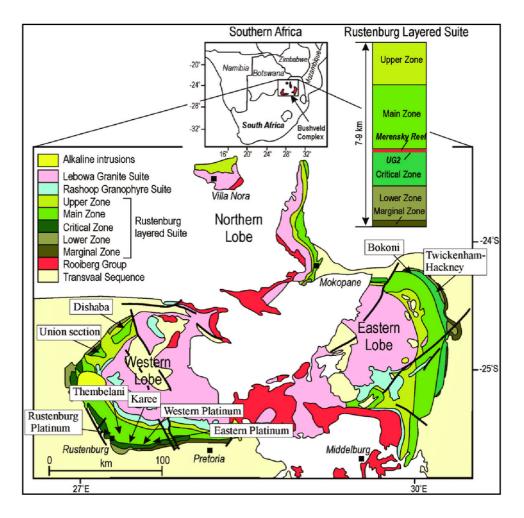


Figure 14: The Rustenburg Layered Suite.

#### • Rashoop Granophyre Suite

The Rashoop Granophyre Suite of the Bushveld Complex is subdivided by Walraven (1987a) into three different types.

#### - Stavoren Granophyre

This granophyre is present throughout the Bushveld Complex and predates the basic rocks and granites of the Complex (Walraven, 1985). It is magmatic in origin and cogenetic with Rooiberg Group volcanics. It consists of medium to fine-grained rocks composed of K-feldspar, plagioclase and quartz together with hornblende, minor biotite and accessory iron oxide and zircon. It is characterised by micrographic intergrowths of quartz and feldspar. It includes sedimentary xenoliths where roof rocks are sedimentary, and spherulitic zones where they consist of Rooiberg Group volcanics (Hall, 1932, Walraven, 1985). The Stavoren Granophyre is well developed on the northern end of the Stavoren Fragment just off the northern boundary of the present study area.

### - Diepkloof Granophyre

This is texturally similar to the Stavoren Granophyre and restricted to the eastern part of the Bushveld Complex underlying volcanic rocks of Rooiberg Group (Walraven, 1985). It is cogenetic with granodioritic rocks present in similar geologic settings elsewhere in the Bushveld Complex and is presumed to have formed by the melting of volcanic roof rocks as a result of intrusion of basic rocks of the complex. It has the same age as the basic rocks (Walraven, 1985).

### - Zwartbank Pseudogranophyre

It is restricted to parts of the Bushveld Complex underlying the sedimentary rocks of Pretoria Group. It differs texturally from Stavoren and Diepkloof Granophyre and consists of intergrown quartz and feldspar indicative of replacement (Walraven, 1985). It is believed to have been formed by severe recrystallisation of sedimentary roof rocks as a result of intrusion of basic rocks of the Bushveld (De Waat, 1972, Walraven, 1985).

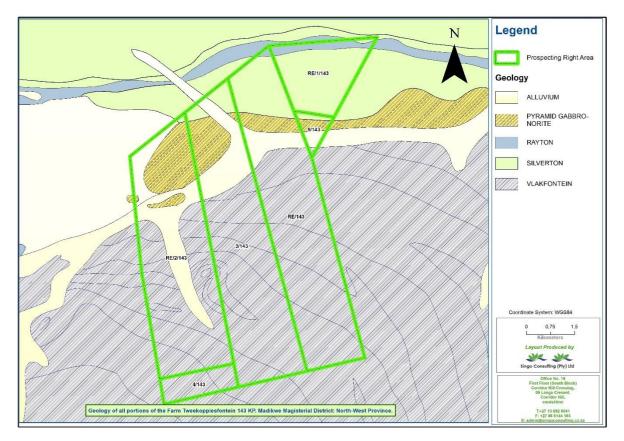
#### Lebowa Granite Suite

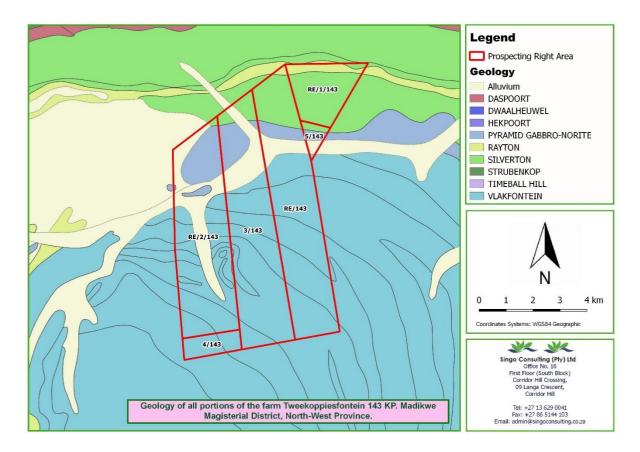
It is restricted to parts of the Bushveld Complex underlying the sedimentary rocks of Pretoria Group. It differs texturally from Stavoren and Diepkloof Granophyre and consists of intergrown quartz and feldspar indicative of replacement (Walraven, 1985). It is believed to have been formed by severe recrystallisation of sedimentary roof rocks as a result of intrusion of basic rocks of the Bushveld (De Waat, 1972, Walraven, 1985).

The Nebo Granite forms a regional sill like intrusive of A-type granite (Kleeman and Twist. 1989; MacCaskie, 1983; McCarthy and Hasty, 1976; Hill *et al.*, 1996), It has an estimated thickness of some 2.5km (McCaskie, 1983). De Waal (1963), Snyman (1958) and Marlow (1976) described the main phase of this granite as *red* to grey in colour, coarse grained. Granular K-feldspar perthite, quartz and plagioclase are the major constituents, whereas hornblende, biotite and muscovite are minor constituents. Accessory minerals include opaque minerals, zircon, rutile and fluorite. Local granophyric and aplitic varieties are developed.

# • Rooiberg Group

These intercratonic volcanic rocks largely confined to the roof of the Bushveld Complex consist of nine magma types varying in composition from basalt to rhyolite (Hatton and Schweitzer, 1995). Basalts and andesites intercalated with dacites and rhyolites are found towards the base; rhyolite is the chief magma composition in the upper succession. According to Hatton and Schweitzer (1995), crustally contaminated plume magma synchronously intruded beneath the Rooiberg Group to produce the mafic rocks of the Rustenberg Layered Suite.





#### Figure 15: Geological Map of the proposed site.

Built of granites, gneisses and greenstones, the Kaapvaal Craton constitutes the basement for the accumulation of different clastic cover sequences and the intrusion of the Bushveld Igneous Complex (Fox, 2000; Groves, 2003). An outcrop of the Achaean gneiss basement is found in the northern and north-western part of the study area, forming a band from Lobatse over Gaborone in Botswana and stretching further northeast from Derdepoort towards the Limpopo River Basin where it forms flat to slightly undulating landscapes (De Wit & Bekker, 1990; Hepworth & Jones, 1973; De Villiers & Mangold, 2002). See figure below.

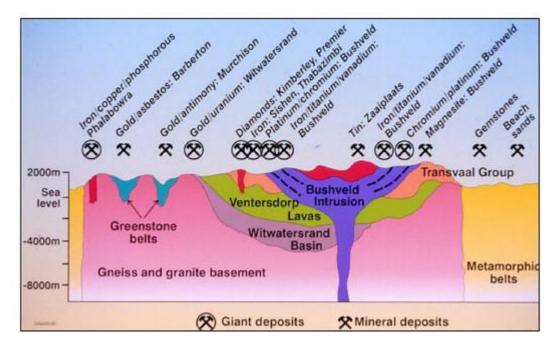


Figure 16: The Kaapvaal Craton and the associated geological sequences. Source: Groves (2003).

### • Merensky Rief

Although the Merensky Reef is generally regarded as a uniform reef type, large variations occur in reef thickness, reef composition, as well as the position of the mineralisation. The rock-forming minerals of the Merensky Reef comprise approximately equal amounts of dark iron-magnesium silicate minerals and lighter calcium-aluminium-sodium silicate minerals (called a feldspathic pyroxenite) under- and overlain by thin (5 to 15 mm) often discontinuous layers of chromite concentrations.

The total thickness of this package is generally less than 30 cm. This zone, commonly known as the Merensky pegmatoid, contains the base metal sulfide grains and associated platinum group minerals.

The Merensky Reef has been traced for 300 km around the entire outcrop of the eastern and western limbs of the Bushveld Complex, and to depths of 5 km. The rock-forming silicate minerals of the Merensky Reef consist predominantly of orthopyroxene (~60 per cent), plagioclase feldspar (~ 20 per cent), pyroxene (~15 per cent), phlogopite (~5 per cent), and occasional olivine.

Secondary minerals such as talc, serpentine, chlorite and magnetite have widespread occurrence. The base metal sulfides consist of pyrrhotite (~40 per cent), pentlandite (~30 per cent), chalcopyrite (~15 per cent), and trace amounts of millerite (NiS), troilite (FeS), pyrite (FeSJ, and cubanite (Cu2FeS4) T. he major platinum group minerals are cooperite (PtS),

braggite [(Pt,Pd)NiS], sperrylite (PtAs2) and PGE alloys, although in some areas minerals such as laurite (RuS2) can be abundant.

### • The UG-2 Reef

The UG-2 Reef is a platiniferous chromitite layer which, depending on the geographic location within the Complex, is developed some 20 to 400 metres below the better known Merensky Reef. The chromitite itself is usually 1 m thick but can vary from ~0.4 to up to 2.5 m. Thin chromitite seams (generally less than 20 cm in thickness) may be present in both the footwall and, more commonly, in the hanging wall rocks.

The UG-2 consists predominantly of chromite (60 to 90 per cent by volume) with lesser silicate minerals (5 to 30 per cent pyroxene, and 1 to 10 percent plagioclase (2)). Other minerals, present in minor concentrations, can include the silicates: phlogopite and biotite, the oxides: ilmenite, rutile and magnetite, and base metal sulfides. Secondary minerals include quartz, serpentine and talc. The Cr203, content of the UG-2 Reef varies from 30 to 35 per cent (the pure chromite mineral has an average Cr203 content of 44 per cent (12)).

In the centre of the study area lays the warmer and drier plains of the Bushveld Basin floor formed by rocks of the Bushveld Igneous Complex (Van der Meulen, 1979; Van der Meulen & Westfall, 1979). The terrain comprises mainly level plains with some relief, and plains with open low hills and ridges (figure 3.3). Uplifted ridges have formed from erosion resistant Transvaal quartzites and mafic Bushveld Complex rocks (Fox, 2000). Terrain morphology generally ranges from flat to gently undulating lowlands owing to the underlying igneous norite and granite rocks respectively. Thus, local relief does not vary more than 130 m and over 80% of the area has slopes of less than 5° (Van der Meulen, 1979). Elevations range between 900 to 1,200 m, with occasionally occurring small rocky hills or outcrops of bedrock.

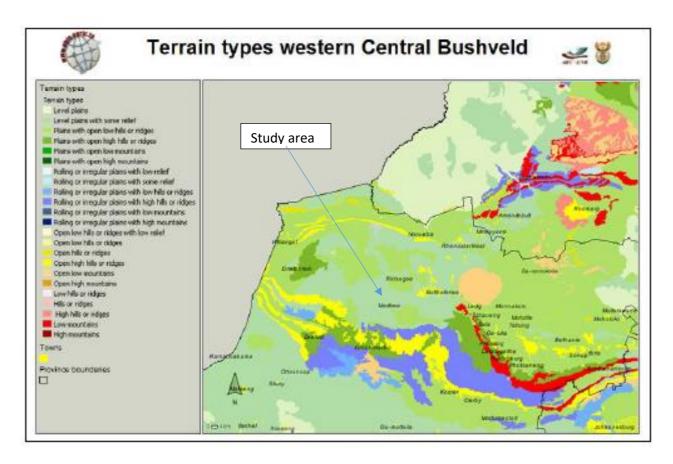


Figure 17: Terrain morphology of the western Central Bushveld. Source: AGISMap Atlas, http://www.agis.agric.za (Retrieved: 15.09.2010).

### Soils

Soils are dynamic in nature and are constantly evolving and degrading by means of natural and man induced processes" (De Villiers & Mangold, 2002). The soil types of the western Central Bushveld are closely linked to the prevalent topography, geology and climate of the area.

Soils in semi-arid areas, like those found in the western Central Bushveld, are commonly shallow, stony and low in humus content due to superficial weathering and decomposition of organic matter respectively (Van der Meulen & Westfall, 1979; De Villiers & Mangold, 2002). Additionally, the low rainfall levels associated with semi-arid regions produce soils that are only slightly leached, and thus tend to develop high concentrations of salts in the soil, particularly if evaporation rates are high, resulting in the formation of hardpans or surface duricrusts (De Villiers & Mangold, 2002). As a result, the soil characteristics constitute an influential factor for plant growth in the study area governing the vegetation types that are able to grow there.

According to Van der Meulen (1979), six general soil types can be distinguished in the western Central Bushveld. The lowlands of the Bushveld Basin are mainly occupied by ferruginous lateritic or fersiallitic soils, along with vertic black clay soils (Van der Meulen, 1979; Van der Meulen & Westfall, 1979).

Ferruginous soils are yellow to red residual soils develop from sedimentary, metamorphic or igneous rocks by intensive weathering together with considerable leaching of silica, generally characterized by the presence of kaolinite and hydrous oxides of iron and aluminium (Butt & Zeegers, 1992; Cole, 1996; www.thefreedictionary.com). These non-calcareous, shallow to deep, meso- to eutrophic sands and loams occur on Pretoria quartzites, bushveld granites and dolomite, as well as on Karoo deposits in the study area (Van der Meulen, 1979). They tend to be gravelly with coarse sand grains and may be underlain by iron hardpans that impede drainage (e.g. plinthosols) (Butt & Zeegers, 1992; Van der Meulen & Westfall, 1979). The corresponding soil forms are Hutton, Clovelly and Avalon; especially quartzites and dolomites have weathered to poor red apedal sands, classified as the Hutton Form in South Africa (Van der Meulen, 1978).

Fersiallitic soils are only slightly leached yellow to red latosols rich in iron and aluminium oxides, but still contain a substantial amount of silica, and usually also containing clay minerals such as kaolinite and montmorillonite (Van der Meulen, 1979; www.thefreedictionary.com). They are non-calcareous, shallow to deep, meso- to eutrophic loams and clays which occur on andesitic lavas, Pretoria shales, diabase intrusions, norites and Karoo sediments, forming red, more structured soils that belong mainly to the Shortlands Form (Van der Meulen, 1979).

On the other side, the calcareous, shallow to deep vertic black clay soils (Vertisols, VR; figure 3.8) are typically found on the basic and ultrabasic igneous rocks (e.g. norites and gabbros) in the centre of the study area, but also overlying calcareous argillaceous sediments that occur in the north of the western Central Bushveld (Van der Meulen, 1979; Cole, 1996). These dark coloured, strongly structured soils are also referred to as 'Black Turf' (Du Toit, 1954). They have a high content of montmorillonite, a clay mineral with strong shrinking and swelling properties that causes self-mulching of the soil during the wet season and cracking during the dry season (www.thefreedictionary.com). Because the black turf forms by extensive weathering of the lime-soda feldspars and pyroxenes of the norite with the production of lime, magnesium, soda and gypsum, the soil is of good agricultural value, although difficult to manipulate (Du Toit, 1954). The main soil form occurring as black turf soils in the study area is classified as Arcadia (Van der Meulen, 1979).

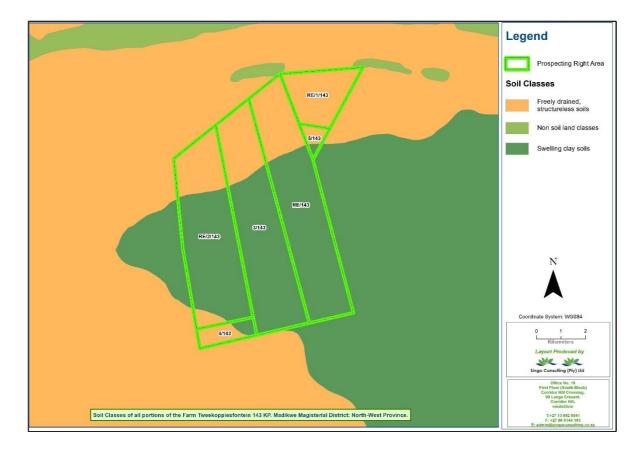
Lithosols and bedrocks are commonly found in the uplands (Van der Meulen, 1979). Based on the soil map developed by Werger (1978), lithosols are mainly located on arenaceous sediments surrounding the Bushveld Igneous Complex in the study area, that is to say on clastic sedimentary rocks such as quartz sandstone and arkoses (www.encyclopedia.com), but are also found overlying the bushveld granites and the calcareous rocks to the north of Mafikeng. Furthermore, scattered outcrops of bedrock have been shown to occur throughout the basin floor. Lithosols have a weak profile differentiation primarily found on steep slopes where it is made up of coarse, only partly weathered rock fragments and solid rock at depths of 30 cm and less (Werger, 1978; www.thefreedictionary.com). Mispah and Glenrosa is the main soil forms associated with lithosols in the study area (Van der Meulen, 1979).

A more detailed description of the general soil patterns found in the western Central Bushveld is given in figure 3.8. It shows that alongside the black vertic clays (Vertisols, VR) the central lowlands are mainly covered by Cambisols (CM), defined as red, well-drained soils of high base status that lack a strong texture contrast (FAO, 2005). These soils develop from a wide range of rock types by slight to moderate weathering with only low accumulation of organic matter, illuviated clay and Fe-/Al-containing components (IUSS Working Group, 2006).

However, the uplands and plains with more contrasting relief display a more complicated picture of soil patterns. For example, red, yellow and greyish soils with a plinthic catena, also referred to as Plinthosols (PT1 and PT2), are found to occupy plains of low to high hills and ridges (FAO, 2005). Plinthosols are a Fe-rich, humus-poor mixture of kaolinitic clay with quartz and other constituents that change irreversibly to a layer with hard nodules or hardpans as a consequence of repeated wetting and drying, for example by exposure to a seasonally fluctuating groundwater table (IUSS Working Group, 2006).



Figure 18: Soil on site as observed



# Generalized soil patterns western Central **Bushveld**

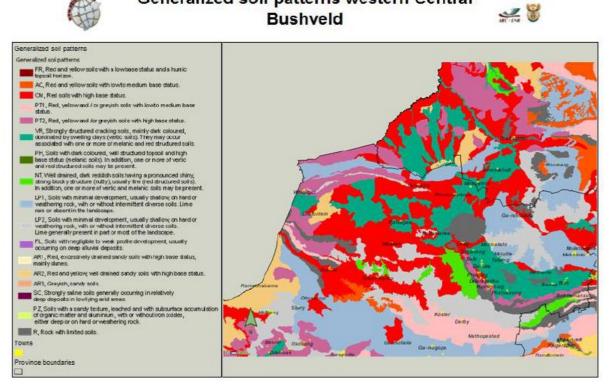


Figure 19: Soil class maps of the area.

### 3.1.4 Fauna and Flora

The vegetation surveys were undertaken within vegetation polygons identified by a combination of Mucina and Rutherford vegetation mapping (2006), photograph interpretation and mapping by the Terrestrial Biodiversity Assessment Plan (BGIS, 2013).

Vegetation surveys were conducted to:

• Assess the presence of an endangered ecological community under the IUCN Red list;

• Determine whether vegetation patches meet the endemic vegetation definition as defined under the NEMBA;

• Record rare and threatened flora species

The aim of the faunal investigation is to present a description of the faunal attributes of the study area, the Red Listed faunal status of the area as well as inherent faunal sensitivities of identified habitat units. Results of this investigation will ultimately be incorporated into the ecological overview of the study area.

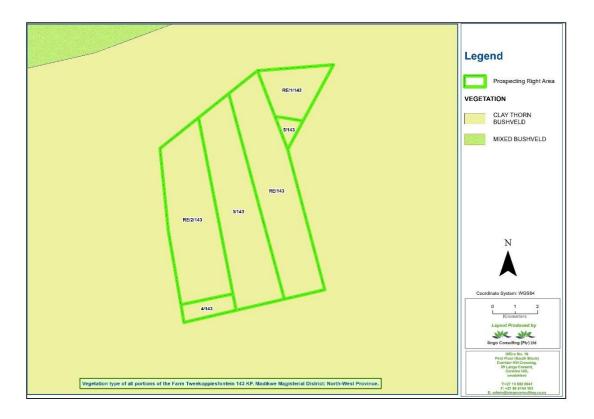
Animal or faunal assessments were done visually and bird species were verified from the Sasol Birds of Southern Africa (Sinclair et al., 2002).Mammals (Cows) were noted near the site. Occurrence of reptiles was assessed through field observation and comparison to the SARCA list of observed species for the study area.





Figure 20: Fauna and Flora on site as observed.

The study area is situated within the clay thorn bushveld. The Transvaal Bushveld is considered as one of the most southerly types of savanna woodland in Africa, comprising of various vegetation types with a continuous and dominant grass stratum interspersed with woody elements of varying height and density (Van der Meulen, 1979; Cole, 1996). According to the vegetation classification by Acocks (1975) and Low & Rebelo (1996), several broad veld types can be assigned to the western Central Bushveld (table 2.2) that correspond with the physiographic divisions of the study area.



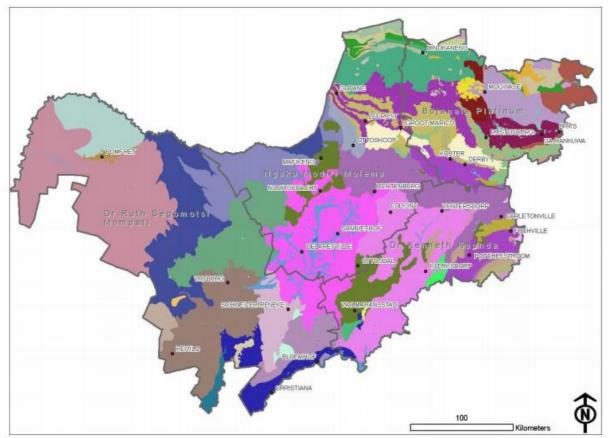




Figure 21: Environmental Sensitivity Maps for the proposed project.

Table 8: The broad veld types identified for the western Central Bushveld in order of significance. Source: Cole (1996), Low & Rebelo (1996) and Van der Meulen (1979).

ACOCKS (1975)	LOW & REBELO (1996)	HABITAT
Sourish Mixed Bushveld (A19)	Mixed Bushveld (L&R18)	Hills and plateaux
		(e.g. ridges and hills of the
		Bankenveld; Norite Koppies)
Mixed Bushveld (A18)		Low-lying plains and valleys
		(e.g. overlying the Bushveld
		Granites)
Other Turf Thomveld (A13)	Clay Thom Bushveld (L&R14)	Low-lying flat bottomland
		(overlying the Bushveld
		Complex)
Kalahari Thornveld (A16)	Kalahari Plains Thorn	Low-lying flat bottomland
	Bushveld (L&R30)	(far north-west at Botswana
		border)
Arid Sweet Bushveld (A14)	Sweet Bushveld (L&R17)	Low-lying valley

		(along Limpopo River at		
		Botswana border)		
Sour Bushveld (A20) and	Waterberg Moist Mountain	Hills and low mountains		
Mountain Sourveld (A8)	Bushveld (L&R12)	(e.g. Pilanesberg,		
		Magaliesberg, Gatkop)		

The vegetation unit is found as a broad east-west band along the gentle low hills and ridges extending from the Botswana border north of Witkleigat towards Thabazimbi (figure 3.15). Since most of the terrain is steeply sloping and characterized by stony, shallow soil underlain

by dolomite, the shrub-tree layer is not so well-defined (figure 3.8). Dominant species of the tree-shrub layer are deciduous small trees like Combretum apiculatum, Kirkia wilmsii, Ozoroa paniculosa and Ximenia americana, along with tall-growing shrubs like Clerodendrum glabrum, the Grewia species flava, bicolor and monticola, and Vitex zeyheri. Again, the herbaceous layer is continuous, with grass species such as Aristida congesta, Enneapogon scoparius and Heteropogon contortus as important taxa.

Conservation status is fairly good with 17% of the area protected within the Madikwe Game Reserve and only 1% transformed by cultivation. However, bush encroachment may occur locally on red clay loams of the more flat terrains in between the rocky ridges.

### 3.1.5 Water resources

A hydrology desktop study with the information sourced from (Operating Rules for Dams with High Evaporation Losses H. S. Swart, P.G. van Rooyen, B. Mwaka, C. Ntuli). Showcased that; The water resources of the Great Marico River Catchment have been the subject of the study "Yield Analysis: Molatedi Dam" undertaken by the DWAF in 1996 (DWAF, 1996). The hydrological time series database resulting from the DWAF 1996 study covering the period from October 1920 to September 1994 (i.e. extending over a period of 74 years) was adopted for the operating analysis of this study. The hydrology of the catchment upstream of Klein Maricopoort Dam was updated to include the impact of increased abstractions from the dolomitic compartments on the spring flows. The hydrological modelling was done on a quaternary catchment basis and the hydrological information is summarised in Table 9. There is no commercial afforestation within the study area but only game ranches.

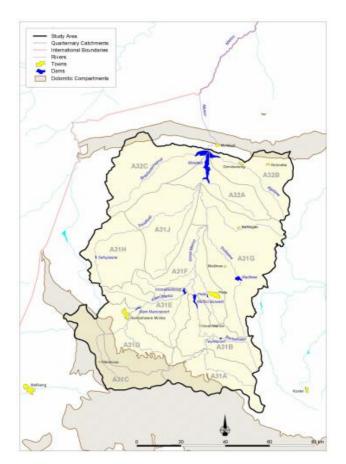
### 3.1.5.1 Surface water

A desktop study for surface water was conducted. The main purpose for the assessment was to identify wetlands, streams and fountains within the prospecting area. All these areas will remain undisturbed to prevent any negative impacts that be posed to these areas as a result of drilling activities. After site assessment buffer zone was developed which shows that they should be no any drilling activities within the area were mapped using Qgis 2.14.9, this will prevent any contamination and damaging the natural state of wetland, streams, and dams within the prospecting area.

The proposed site falls within the Crocodile west and Marico of the Quaternary Catchment A32C (see figure 23 & 24 below). The identified water management areas supply water to

Botswana and in South Africa, the scheme supplies about 9 million m3 of water per annum to irrigation farmers along the lower Groot Marico River and about 5 million m3 of water per annum for primary use in the Madikwe Game Reserve and the village of Molatedi. The scheme consists of the following infrastructure:

- The Molatedi Dam located on the Groot Marico River;
- A balancing reservoir;
- A pump station at Mooiplaats, 26km downstream of the Molatedi Dam;
- A 22km feeder pipeline to the balancing reservoir; and
- A 32km gravity pipeline to the Gaborone Dam in Botswana.



source: Sedibeng water



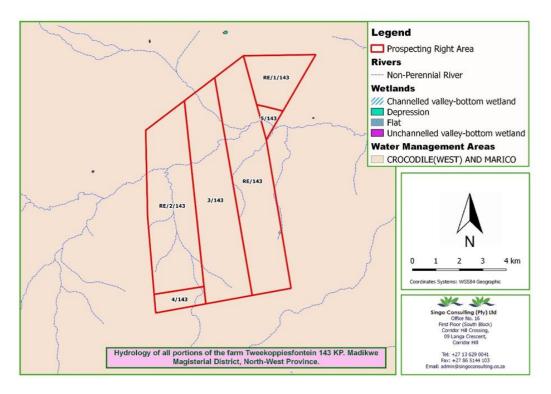


Figure 23: Surface water map for the project area.

The topography is generally flat with undulating areas in the Lower Marico catchment. The total effective catchment area of the Great Marico River upstream of Molatedi Dam has been assessed at 8640 km2 and the corresponding natural Mean Annual Runoff (MAR) for the catchment amounts to 110 million m3 /a (MAR for 1920 to 1993 record period). The flow in the Marico River is highly variable and intermittent. Runoff within the Molatedi Dam catchment is regulated by the Klein Maricopoort, Kromellenboog, Marico Bosveld, Pella, Madikwe and Sehujwane dams as well as other smaller farm dams. Although the Marico Bosveld Dam's catchment area of 1230 km2 amounts to only 14% of the total study area, 36% of the natural MAR is generated in this catchment. The main water use sectors are commercial irrigation farming, urban water use in the main towns of Ramoshwere Moiloa (former Zeerust) and Groot Marico, as well as domestic water use in rural villages such as Madikwe, Pella, Motswedi and surrounding smaller villages. Irrigation water requirements comprise about 75% (48 million m3 /a) of the total system's water use and were assumed to remain constant over the entire analysis period. Urban/industrial/rural demands, which are dependent on surface water resources, are estimated at 9 million m<sup>3</sup>/a at the 2006 development level and is expected to increase to 10 million m<sup>3</sup>/a by 2020.

Ramoshwere Moiloa is supplied from groundwater resources. Botswana has an allocation of 7.3 million m3 /a from Molatedi Dam. This international allocation forms part of the TSWASA Agreement (DWAF, 1988) which determines all the water allocations from Molatedi Dam .In the farm the fresh water runs through in a non-perennial river from Molatedi dam. It is noted

that Molatedi dam has non perennial rivers that goes through the farm and in that case all these areas will be buffered and ensure that drilling occur 600 m away from the water bodies. See figures below.

Pella, Madikwe and Sehujwane dams supply water for domestic use only. The domestic water users identified within the study area, as well as their water resources and requirement projections that were adopted for the analyses by (HS Swart,PG van Rooyen,B Mwaka,C Ntuli) , are summarised;

Description of water user	Water resource	Water requirement projections (million m <sup>3</sup> /a)			
		2006	2010	2015	2020
Ramoshwere Moiloa	Groundwater	4.400	4.820	5.391	6.030
Groot Marico Municipality	Great Marico River	1.700	1.700	1.700	1.700
Swartruggens	Rietvlei Spruit	0.360	0.360	0.360	0.360
Pella and nearby villages	Pella Dam	0.237	0.266	0.307	0.355
Madikwe and nearby villages	Madikwe Dam	0.883	0.993	1.150	1.332
Motswedi and nearby villages	Sehujwane Dam	0.814	0.916	1.062	1.230
Molatedi (RSA Domestic)	Molatedi Dam	5.000	5.000	5.000	5.000
International (Botswana)	Molatedi Dam	7.300	7.300	7.300	7.300
Total water requirements:		20.7	21.4	22.3	23.3
Total water requirements suppl	16.3	16.5	16.9	17.3	

### Table 9: Domestic Water Requirements

Swartruggens has a fixed allocation from the Rietvleispruit. Owing to lack of information, the water requirements of Groot Marico Municipality were assumed to be equal to their allocation. Since projections for the remaining towns and villages were only provided up to the year 2010, the necessary extrapolation thereof to the year 2020 was based on the annual growth calculated over the period 2006 to 2010. The annual growth determined for Pella village was in the order of 3.4% whereas that of Madikwe and Motswedi villages amounted to almost 3%. The future International (Botswana) requirements were kept constant at 7.3 million m 3 /a.

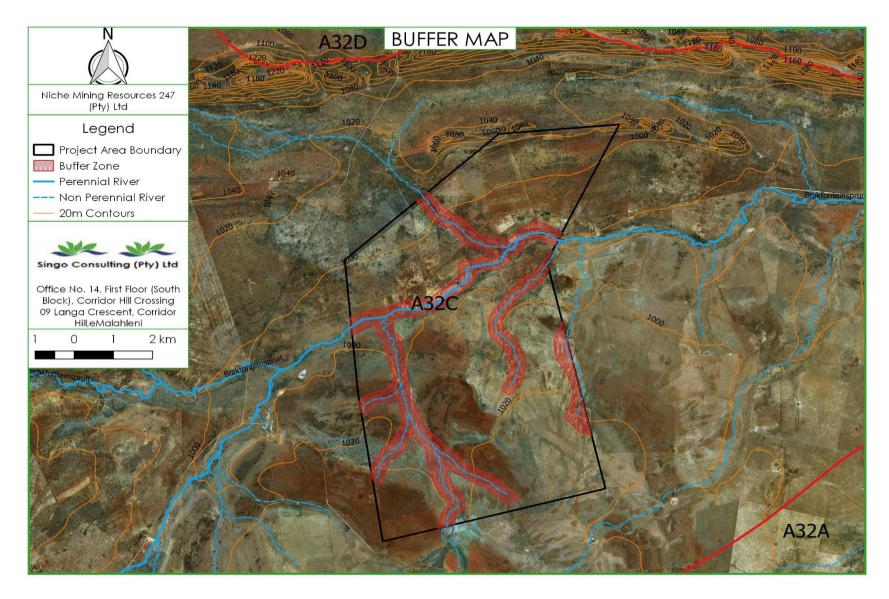


Figure 24: Wetlands, streams and buffer zones

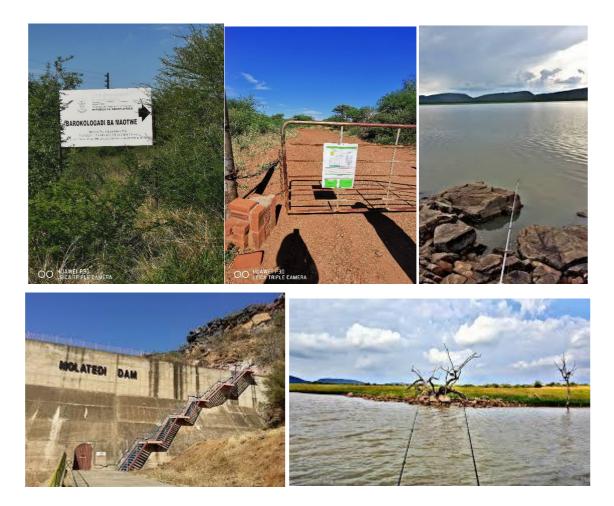


Figure 25: Surface water for the project area.

Table 10: hydrological data for the Great Marico River System

Incremental Sub- Catchment Name	Sub-Catchment Reference Number	Net Incremental Catchment Area (km <sup>2</sup> )	Natural MAR <sup>(&amp;)</sup> (1920-1993) (million m <sup>3</sup> /a)	MAP <sup>(5)</sup> : 1920 - 1993 (mm)
A31A	11	633	21.03	569
A31B	12	597	18.97	629
A31CDN	13	1191	10.75	566
A31E	I4	602	5.60	579
A31F	15	703	7.29	588
A31G	16	1427	14.19	580
A31H	17	685	6.50	576
A31J	18	846	6.64	0
A32AB	19	1115	11.93	0
A32C	I10	841 (#)	7.45	526
Total for Great Marico	Catchment	8640	110.4	

 
 (#) With the exception of quaternary catchment A32C (gross area of 904 km²) the remaining sub-catchments have no endoreic areas (i.e. gross areas are equal to net areas).

 (&) Mean Annual Runoff

 (\$) Mean Annual Precipitation
 Note:

#### 3.1.6 Critical Biodiversity Area

#### CONSERVATION ASSESSMENT PLAN FOR THE SITE

Based on the Biodiversity conservation plan (2013) the study sites fall within the following Conservation Areas categories:

Ecosystem support area 1, Critical biodiversity area 2 and natural.

#### 3.1.7 FAUNAL HABITAT ASSESSMENT

One of the farm portions of the proposed project sites offer Special Habitat Location to the faunal species occurring within the area.

#### 3.1.8 FLORA HABITAT ASSESSMENT

With exception to the farm which has a river and wetland areas that support floral species of conservation importance, no other site was identified as an area for flora importance.

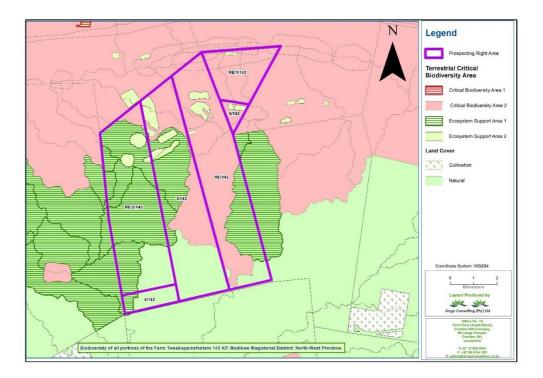
The specialist report conducted by Dr.P.J du Preez states the following: According to the North-West Province's Biodiversity Sector Plan (2015) small parts (natural veld) of the project site is situated in Critical Biodiversity Areas (CBA1 & 2) and Ecological Support Areas (ESA1 & 2). The rest of the site has been ploughed to produce maize. A few patches of natural savanna is still present on the property. Camel Thorns (Vachellia erioloba) occur in the patches.

According to SANBI's POSA species list a number of protected and Red Data species occur in the quarter degree squares. These species were listed in terms of the National Threatened species list, the National Forest Act (Act 84 of 1998) and the North-West Nature Conservation Ordinance (Act 12 of 1983). During the site assessment individuals of the protected Camel Thorn tree (Vachellia erioloba) were found on the property.

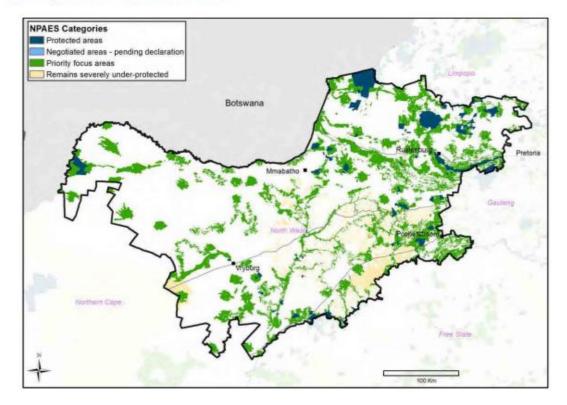
The Department of Rural, Environmental and Agriculture Development (READ) defines Critical Biodiversity Areas and Ecological Support Areas as follows:

Critical Biodiversity Areas (CBAs) are terrestrial and aquatic areas of the landscape that need to be maintained in a natural or near-natural state in order to ensure the continued existence and functioning of species and ecosystems and the delivery of ecosystem services. In other words, if these areas are not maintained in a natural or near-natural state then biodiversity targets cannot be met. Maintaining an area in a natural state can include a variety of biodiversity compatible land uses and resource uses.

Ecological Support Areas (ESAs) are terrestrial and aquatic areas that are not essential for meeting biodiversity representation targets (thresholds), but which nevertheless play an important role in supporting the ecological functioning of critical biodiversity areas and/or in delivering ecosystem services that support socio-economic development, such as water provision, flood mitigation or carbon sequestration. The degree or extent of restriction on land use and resource use in these areas may be lower than that recommended for CBAs.



#### Priority areas in the North West



Source: North West Province Biodiversity Conservation Assessment Technical Report

#### Figure 26: Critical Biodiversity Map for the proposed areas.

The impact on natural habitat types can never be completely ameliorated if development proceeds but can be minimized. Where natural habitat types are to be transformed, especially the woodland areas, consideration should be given to the quality of the habitat based on the presence of micro-habitats and areas of high quality must be conserved.

Endangered plant and animal species should be identified and relocated to safe habitats.

Protected vegetation within the vicinity should be identified, demarcated and marked. The content of the tags should include the protection status, common name of the tree, and a warning not to cut, disturb or damage the tree. Therefore, plants or trees should not be removed, damaged or destroyed further without authorization by the relevant authorities or person(s).

All unattended trenches should be demarcated and fenced off to minimise the potential injury to humans and animals.

A programme to manage alien invasive species should be developed and implemented. The monitoring programme should be part of the operational EMP.

Intentional killing of invertebrates and herpetofauna should be avoided by means of awareness programmes presented to the labour force. The labour force should be made aware of the conservation issues pertaining to the taxa occurring on the study site.

All activities must be limited to daylight hours.

Activities and associated vehicles and machinery should take cognizance of the weather conditions, the prevailing wind direction and vehicles and machinery should adhere to speed limits and be restricted to established haul road network. Schedule of spraying water (with a suitable dust suppression agent) with a dump truck on dust prone portions of the working area should be implemented.

All medicinal species (from affected vegetation units) must be removed with the necessary permits and established in a nursery. After construction, the species must be re-planted during the rehabilitation phase. A management plan (to be compiled by the ECO) should be implemented to ensure proper establishment of ex situ individuals and should include a monitoring programme for at least two years after re-establishment (to ensure successful translocation).

Rehabilitation should consist of indigenous species only, and preferably of species native to the study site and immediate surroundings. The species selected should strive to represent habitat types typical of the ecological landscape prior to construction. Rehabilitation should strive to increase spatial habitat heterogeneity. A monitoring programme should be implemented to evaluate the success of rehabilitation and to take necessary action if required.

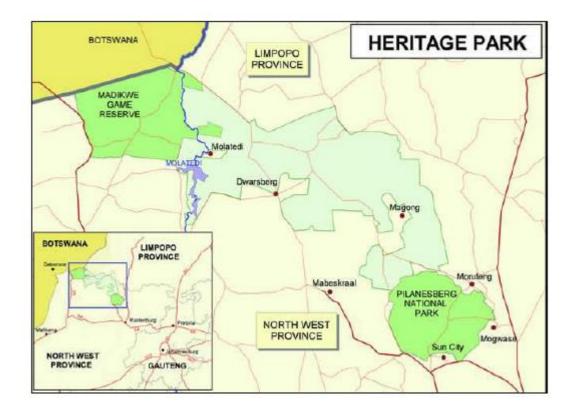
#### 3.1.9 Heritage resources

Heritage resources such as Stone Age sites, rock paintings and engravings; stone tools; small, inconspicuous stone walled sites from the Late Iron Age farming houses; formal and informal, etc may occur in the study area.

The Heritage Park is a vision of local communities, landowners, nature conservationists and government to enhance socio-economic development while contributing to nature conservation in a poor and underprivileged region of the North-West Province (Heritage Park, 2005). This will be achieved by the successive integration of more land to expand the conservation areas of Pilanesberg National Park (47,000 ha) and Madikwe Game Reserve (62,000 ha) into a big wildlife reserve of about 280,000 hectares (figure 3.16). The conservation corridor (172,000 ha) will run in a band north of Pilanesberg towards Dwaalboom, before turning west to follow the Dwarsberg Mountain to join Madikwe west of Molatedi dam (Boonzaaier & Lourens, 2002).

Key objectives are to increase the carrying capacity and sustainability of the two nature reserves as well as that of the expansion area itself, and in this way to improve conservation of the indigenous flora and fauna in this region of the North-West Province. Furthermore, the development of an eco-tourism infrastructure with the involvement of local people and communities aims at creating new job and business opportunities and thus will lead to the required economic growth and social upliftment in this remote region in the North-West Province (Heritage Park, 2005).

The great diversity of the natural landscape in the Heritage Park offers different zones of game and biodiversity management for the purpose of various touristic recreational activities (e.g. mountain ranges (Dwarsberg), hills (Spitzkop and Pilanesberg volcanic crater) and water features (Molatedi dam) (Boonzaaier & Lourens, 2002; Heritage Park, 2003). Assumed heritage houses discovered within the proposed area at some parts can be demolished with communications between the applicant and landowners. However, should any heritage resources of significance be exposed during the construction or rather operational phase of the project, the South African Heritage Resources Agency (SAHRA) should be notified immediately, all development activities should be stopped, and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notified to determine appropriate mitigation measures for the discovered finds. This may include obtaining the necessary authorisation (permits) from SAHRA to conduct the required mitigation measures.



Source: kurwenj report

#### Figure 27: Geographical outline and location of proposed Heritage Park in North-West Province South Africa. Source: www.heritage-park.co.za.

#### 3.1.9.1 Socio-economic environment

The proposed prospecting site is located in Moses kotane Municipality of North West Province.

#### > Moses Kotane Local Municipality

Moses Kotane Local Municipality population was estimated at 242 553 by 2011 Census compared to 237 175 by Census 2001. The Municipality has a predominantly African population with fewer Indian, Coloured and White groups who are mostly residing in Sun City residence and Mogwase Unit 2. It should be noted that the recognized legal statistics to be used in developing IDP's is from Census 2011. Geographic information of households by 2011 was estimated at 75 195 compared to 61 759 by Census 2001 with the same total number of demarcated wards. See below for the summary of the local stats.

Table 11: Statistics	for Moses Kotane
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Census 1996	Male	108313	Female	121308
Census 2001	Male	115715	Female	121460
Census 2011	Male	120515	Female	122038
Population Growth(2001-2011)	0.22			

Population group	Male	Female	Total
Black African	118092	120424	238516
Coloured	325	294	620
Indian or Asian	837	363	1200
White	989	840	1829

Young (0-14)	Male	35696	Female	35099
Working Age (15-64)	Male	77489	Female	75483
Elderly (65+)	Male	7330	Female	11456
Sex Ratio (Males/100 Females)	99		•	
Dependency Ratio (<15+>65/(15-64)	58.56			

	2001	2011
	2001	2011
Literacy Rate	79	94.4
Attending Educational Institutional (%)	75	70
No Schooling (%) (20yrs +)	18	10.4
Primary Enrolment (%) (6-13yrs)	97.8	98
Matric Completion (%) (20yrs +)	36.5	33
Matric Pass Rate	See DoE report	
Completion of Higher Education (%)	6.2	5.9

According to Census 2011, the population of Moses Kotane Local Municipality is populated by blacks as majority and then followed by whites and minimal of other race.

Table 12: Race Groups in Moses Kotane LM
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	Black African	Coloured	Indian or	White	Other
			Asian		
NW375: Moses Kotane					
Male					
Yes	31 880	63	66	136	11
No	67 158	168	597	463	227
Do not know	79	-	4	-	-
Unspecified	3 199	2	6	52	1
Female					
Yes	30 204	53	66	123	12
No	71 256	140	202	397	75
Do not know	114	-	1	-	-
Unspecified	4 021	6	8	36	3

Source: Census 2011

In Moses Kotane LM, majority have completed schooling and the passing rate of learners from grade to grade is high.

Table 13: Levels of Education in Moses Kotane LM

	Black African	Coloured	Indian or Asian	White	Other
NW375: Moses Kotane					
Male					
Gade 0	3 993	11	6	16	2
Grade 1 / Sub A	3 612	7	9	9	4
Grade 2 / Sub B	3 536	2	13	10	5
Grade 3 / Std 1/ABET 1Kha Ri Gude; SANLI	3 959	4	5	10	8
Grade 4 / Std 2	4 636	16	7	13	10
Grade 5 / Std 3/ABET 2	4 892	7	12	7	6
Grade 6 / Std 4	5 573	12	13	14	11
Grade 7 / Std 5/ ABET 3	6 168	13	12	8	19
Grade 8 / Std 6 / Form 1	8 642	6	35	26	14
Grade 9 / Std 7 / Form 2/ ABET 4	6 792	8	20	12	17

	Black African	Coloured	Indian or Asian	White	Other
NW375: Moses Kotane					
Grade 10 / Std 8 / Form 3	9 189	22	35	43	31
Grade 11 / Std 9 / Form 4	9 685	19	39	21	15
Grade 12 / Std 10 / Form 5	20 581	68	251	221	54
NTC I / N1/ NIC/ V Level 2	153	0	5	5	0
NTC II / N2/ NIC/ V Level 3	91	1	0	12	0
NTC III /N3/ NIC/ V Level 4	148	0	1	12	0
N4 / NTC 4	92	1	0	5	0
N5 /NTC 5	47	0	1	3	0
N6 / NTC 6	124	1	3	9	0
Certificate with less than Grade 12 / Std 10	100	3	1	0	0
Diploma with less than Grade 12 / Std 10	101	0	2	4	1
Certificate with Grade 12 / Std 10	649	5	16	26	2
Diploma with Grade 12 / Std 10	774	5	57	50	5
Higher Diploma	511	4	16	49	1
Post Higher Diploma Masters; Doctoral Diploma	97	0	1	1	0
Bachelor's Degree	287	5	52	18	4
Bachelor's Degree and Post graduate Diploma	120	3	7	7	1
Honours degree	144	1	7	5	0
Higher Degree Masters / PhD	82	0	11	3	0
Other	108	1	18	16	3
Female					
Grade 0	3 767	1	11	12	1
Grade 1 / Sub A	3 528	4	3	14	2
Grade 2 / Sub B	3 677	2	6	13	4
Grade 3 / Std 1/ABET 1Kha Ri Gude;SANLI	4 113	5	5	9	2

#### Source: Census 2011

In its endeavour to address unemployment and poverty the municipality has conducted a comprehensive Local Economic Development Plan or Strategy that is aimed at guiding local economic development. As part of the Plan or Strategy several projects were proposed amongst them those that aim to attract investor's particularly local people would be employed in such firms. The only problem with most projects is lack of sustainability for which

mechanisms must be sought to address this problem. The projects are in general in line with the above guidelines on poverty alleviation and addressing gender equity but more efforts must be taken to ensure projects or activities address gender equity and poverty alleviation in many aspects of life and working environments. With an estimated 51% of unemployed persons in Moses Kotane Local Municipality, the following aspects are contributory:

- Lack of a diversity of job opportunities;
- Distance to most existing job opportunities;
- Inefficient or lack of public transport;
- Lack of proper skills;

• Low education or high illiteracy; The effects of unemployment include poverty as a result of lack of income, poor quality of life, high crime rate, lack of food security, lack of tax base and poor economic development. Provision of employment opportunities is hampered by lack of funding, lack of resources, lack of training institutions, and lack of infrastructure such as water and roads and inefficient communication system. It is mostly rural women who are affected because they are the ones often left behind to feed and take care of children. The strategies must focus on the following sectors in terms of addressing the root causes of unemployment and poor economic development:

• In still commitment, diligence and ownership of current and future employment opportunities to working people in the area;

• Access to essential support services such as financial, advisory, equipment and training services particularly to small businesses; maintain a high level of marketing profile;

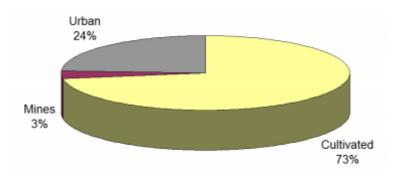
- Improvement of retail and industrial facilities;
- Integration of large and small businesses;
- Provision of land for small scale farmers;
- Access to marketing and processing facilities
- Strengthening of nodal development;
- Recreation and Attraction of investment
- Social Services and Construction, Mining and Tourism
- Transport Sector and Manufacturing
- Communication and Agriculture
- Electrification and Finances
- Wholesaling / Retail and Trade and Commerce

#### 3.2 Description of the current land uses

The determination of the existing site-specific and surrounding land use provides input into the process of impact identification and the establishment of closure objectives. Site-specific land use has been confirmed as agricultural activities and prospecting activities may present a disturbance to the game ranches within the fenced property. Rehabilitation objectives to

restore the site to pre-prospecting state must consider safety matters and an effective revegetation effort to reverse the impacts as far as is practicable.

Due to the level terrain, water-related soil erosion is not a major factor. Game lodge business and ranches is prominent in the area. No mines are currently operating in the area and job creations becomes an issue. See attached pie chart and table which shows the lack od mining in moses kotane municipality boundary.



Local Municipality	Cultivated	RANK Cultivated	Mines	RANK Mines	Natural	RANK Natural	Urban	RANK Urban
Ditsobotla	0.662	4	0.017	7	-0.948	4	0.121	9
Greater Taung	0.073	17	0.007	11	-0.312	18	0.135	5
Kagisano	0.909	2	0.004	15	-1.093	2	0.131	6
Kgetlengrivier	0.152	14	0.007	10	-0.336	16	0.107	11
Lekwa-Teemane	0.233	12	0.063	1	-0.463	10	0.034	21
Madibeng	-0.048	21	0.021	5	-0.262	20	0.22	1
Mafikeng	0.05	18	0.009	9	-0.415	13	0.126	8
Mamusa	0.258	10	0.035	4	-0.448	11	0.053	20
Maquassi Hills	0.491	5	0.035	3	-0.765	5	0.069	18
Matlosana	0.285	9	0.015	8	-0.496	9	0.09	14
Merafong City	0.144	15	0.003	17	-0.263	19	0.078	16
Molopo	0.473	6	0	21	-0.599	6	0.126	7
Moretele	0.003	20	0	20	-0.186	21	0.103	12
Moses Kotane	0.157	13	0.004	16	-0.425	12	0.15	4
Naledi	0.675	3	0.018	6	-1.033	3	0.091	13
Potchefstroom	0.241	11	0.002	19	-0.389	14	0.079	15
Ramotshere Moiloa	0.115	16	0.007	12	-0.328	17	0.161	3
Ratiou	0.454	7	0.005	14	-0.592	7	0.075	17
Rustenburg	0.022	19	0.043	2	-0.348	15	0.213	2
Tswaing	1.275	1	0.006	13	-1.68	1	0.117	10
Ventersdorp	0.426	8	0.003	18	-0.569	8	0.058	19
Grand Total	7.05		0.30		-12.0		2.34	

Figure 28: The proportional contribution of agriculture, mining and urbanization to the loss of natural vegetation in the NW Province together with per municipality.

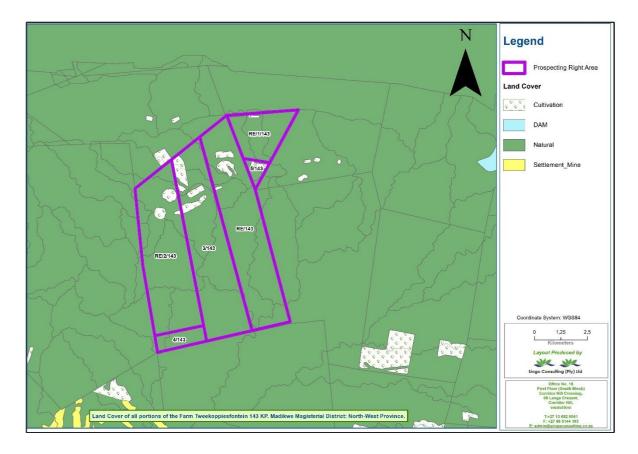
#### 3.3 Description of environmental features and infrastructure on the site

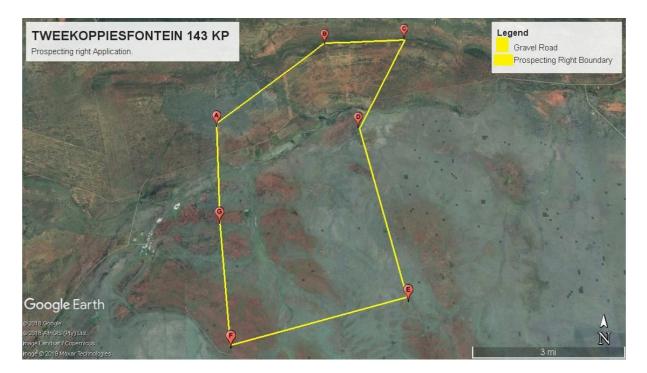
A number of water courses have been identified within the boundaries of the proposed prospecting site. These should be avoided and, where avoidance is not possible, impacts must be appropriately managed and remedied. Based on the outcomes of the initial prospecting phases (non-site disturbing activities), the location of any on-site drilling will be determined (site disturbing activities) and the impacts on the identified water courses will subsequently be determined. The Basic Assessment and Environmental Management Plan must be amended to include direct and indirect impacts on any water courses in the event that any prospecting activities are undertaken within such areas or within 500 m of any water course.

#### 3.4 Environmental and current land use map

#### (Show all environmental, and current land use features)

Please refer to topography and water resources and vegetation types, indicating the environmental and land use features associated with the proposed prospecting area. The area is used for game ranches and grazing of mammals, however some parts in the proposed site are left barren with no activities occurring at the current moment. Non-perennial rivers occurs within the proposed area.





Most of the area is currently used for game renchs, grazing, non-perennial rivers, and in neighbouring area used for mining activity (Zeerust chrome mine).

#### 3.5 Impacts and risks identified, including nature, significance, consequence, extent, duration and probability of the impacts, and the degree to which these impacts can be reversed

Provide a list of the potential impacts identified of the activities described in the initial site layout that will be undertaken, as informed by both the typical known impacts of such activities, and as informed by the consultations with affected parties together with the significance, probability, and duration of the impacts. Please indicate the extent to which they can be reversed, the extent to which they may cause irreplaceable loss of resources, and can be avoided, managed or mitigated.

The following table illustrates the potential impacts associated with each activity.

Phase		Activities	Potential impacts	Reversible	Irreplaceable damage	Can impact be avoided
Phase 1: Data acq	uisition and deskt	op study				
Data acquisition	N/A	Data collection and assessment (desktop only)	1. None identified.	N/A	N/A	N/A
Desktop study	N/A	Data assessment	2. None identified.	N/A	N/A	N/A
Phase 2: Drilling						
	Construction	Site access	3. Destruction and / or disturbance of on-site fauna and flora.	Partial	No	Yes
			4. Soil compaction resulting from repeated use of access roads to drill sites.	Yes	No	No
			5. Vehicle traffic noise impact affecting cattle and / or wildlife.	Yes	No	No
			<ol> <li>Poor access control resulting in impacts on cattle movement, breeding and grazing practices.</li> </ol>	Yes	No	Yes
			7. Potential destruction of heritage resources.	No	Yes	Yes
		Site establishment activities including:	8. Destruction and / or disturbance of on-site fauna and flora.	Partial	No	Yes
		<ul> <li>Vegetation clearing of drill pad area</li> </ul>	9. Soil disturbance and compaction and topsoil stockpiling resulting in soil erosion.	Yes	Partial	No
			10. Dust emission resulting from site	Yes	No	Yes

#### Table 14: Potential impacts per activity and listed activities

Phase		Activities	Potential impacts	Reversible	Irreplaceable damage	Can impact be avoided
		<ul> <li>Topsoil stripping and stockpiling</li> <li>Drill pad compaction</li> <li>Excavation and lining of drill water sump</li> <li>Erection of temporary site office shaded area, potable ablution faculties and water storage tanks and core bay</li> </ul>	<ul> <li>clearing, soil stripping and construction activities (including vehicle entrained dust).</li> <li>11. Visual impact affecting visual character and "sense of place".</li> <li>12. Influx of persons (job seekers) to site as a result of increased activity resulting in increased incidents of theft and opportunistic crime.</li> <li>13. Potential destruction of heritage resources.</li> </ul>	Yes Yes No	No No Yes	Partial Partial Yes
	Operation	<ul> <li>Erection of fuel storage tank</li> <li>Erection of safety barrier</li> <li>Waste generation and management</li> <li>Exploration drilling and core</li> </ul>				Yes
	Operation	sample collection and	14. Water and soil pollution resulting from disposal of drill fluids.	Yes	Partial	res
		storage including: • Scout and delineation • drilling	15. Continued soil erosion from topsoil stockpile and compaction from drill pad platform.	Yes	No	Yes
			16. Potential water and soil pollution resulting from hydrocarbon spills and	Yes	Partial	Yes

Phase		Activities	Potential impacts	Reversible	Irreplaceable damage	Can impact be avoided
		Drill maintenance and	drill maintenance activities.			
		<ul><li>re-fuelling</li><li>Core sample collection and storage</li></ul>	17. Dust emissions from drilling and general site activities (including vehicle entrained dust).	Yes	No	Yes
		<ul> <li>Drill fluid collection, storage and</li> </ul>	18. Visual Impact affecting visual character and "sense of place".	Yes	No	Partial
		<ul><li>evaporation</li><li>Waste generation and</li></ul>	19. Vehicle traffic and drill noise impact affecting wildlife game farm animals.	Yes	No	Partial
		<ul> <li>waste generation and management</li> </ul>	20. Poor access control resulting in impacts on cattle movement, breeding and grazing practices.	No	No	Yes
			21. Influx of persons (job seekers) to site as a result of increased activity resulting in increased incidents of theft and opportunistic crime.	Yes	No	Partial
	_		22. Impact on the pans and associated ecosystems in the area.	No	Yes	Yes
	Decommissioni ng	Removal of temporary infrastructure, including office shaded area, potable ablution	23. Dust emissions from decommissioning activities (including vehicle entrained dust).	Yes	No	Yes
		faculties, water storage tanks and core bay.	24. Poor access control resulting in impacts on cattle movement, breeding and grazing practices.	No	No	Yes
		Borehole capping Drill pad rehabilitation, including:	25. Potential water and soil pollution resulting from hydrocarbon spills.	Yes	Partial	Yes

Phase		Activities	Potential impacts	Reversible	Irreplaceable damage	Can impact be avoided
		<ul> <li>Ripping of drill pad and access road</li> <li>Re-spreading of stockpiled topsoil</li> <li>Re-vegetation</li> </ul>	26. Soil erosion resulting from the re-spreading of topsoil before vegetation is reestablished.	Yes	No	Yes

# 3.6 Methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks

Describe how the significance, probability, and duration of the aforesaid identified impacts that were identified through the consultation process was determined in order to decide the extent to which the initial site layout needs revision.

#### 3.6.1 Criteria of assigning significance to potential impacts

Impact evaluation is conducted in terms of the criteria detailed in Table 12 to Table 17. The various environmental impacts and benefits of this project are discussed in terms of impact status, extent, duration, probability, and intensity. Impact significance is regarded as the sum of the impact extent, duration, probability and intensity and a numerical rating system has been applied to evaluate impact significance. As such, an impact magnitude and significance rating is applied to rate each identified impact in terms of its overall magnitude and significance.

In order to adequately assess and evaluate the impacts and benefits associated with the project, it was necessary to develop a methodology that would scientifically achieve this and reduce the subjectivity involved in making such evaluations. To enable informed decision-making, it is necessary to assess all legal requirements and clearly defined criteria in order to accurately determine the significance of the predicted impact or benefit on the surrounding natural and social environment.

#### 3.6.2 Impact status

The nature or status of the impact is determined by the environmental conditions prior to construction and operation. A discussion on the nature of the impact will include a description of what causes the effect, what will be affected and how it will be affected. The nature of the impact can be described as negative, positive or neutral.

Rating	Description	Quantitative rating
Positive	A benefit to the receiving environment.	Р
Neutral	No cost or benefit to the receiving environment.	-
Negative	A cost to the receiving environment.	Ν

#### Table 15: Status of impact

#### 3.6.3 Impact extent

The extent of an impact is determined by assessing its effect on a wide area or group of people. It can be site-specific (within the boundaries of the development area), local, regional or national and/or international.

#### Table 16: Extent of impact

Rating	Description	Quantitative rating
Low	Site-specific: Occurs within the site boundary.	1
Medium	Local: Extends beyond the site boundary. Affects the immediate surrounding environment (i.e. up to 5 km from the project site boundary).	2
High	Regional: Extends far beyond the site boundary, widespread effect (i.e. 5 km and more from the project site boundary).	3
Very high	National and/or international, extends far beyond the site boundary, widespread effect.	4

#### 3.6.4 Impact duration

The duration of the impact refers to the time scale of the impact or benefit.

#### Table 17: Impact duration

Rating	Description	Quantitative rating
Low	Short term: Quickly reversible, less than project lifespan, 0-5 years.	1
Medium	Medium term: Reversible over time, approximate lifespan of the project, 5-17 years.	2
High	Long term: Permanent. Extends beyond the decommissioning phase, >17 years.	3

#### 3.6.5 Impact probability

The probability of the impact describes the likelihood of the impact actually occurring.

#### Table 18: Impact probability

Rating	Description	Quantitative rating
Improbable	Possibility of the impact materialising is negligible, chance of occurrence <10%.	1
Probable	Possibility that the impact will materialise is likely, chance of occurrence 10 – 49.9%.	2
Highly probable	It is expected that the impact will occur, chance of occurrence 50 – 90%.	3
Definite	Impact will occur regardless of any prevention measures, chance of occurrence >90%.	4
Definite and cumulative	Impact will occur regardless of any prevention measures, chance of occurrence >90% and is likely to result in in cumulative impacts	5

#### 3.6.6 Impact intensity

The intensity of the impact is determined to quantify the magnitude of the impacts and benefits associated with the proposed project.

#### Table 19: Impact intensity

Rating	Description	Quantitative rating
Maximum benefit	Where natural, cultural and / or social functions or processes are positively affected resulting in the maximum possible and permanent benefit.	+5
Significant benefit	Where natural, cultural and / or social functions or processes are altered to the extent that it will result in temporary but significant benefit.	+4
Beneficial	Where the affected environment is altered but natural, cultural and / or social functions or processes continue, albeit in a modified, beneficial way.	+3
Minor benefit	Where the impact affects the environment in such a way that natural, cultural and / or social functions or processes are only marginally benefited.	+2
Negligible benefit	Where the impact affects the environment in such a way that natural, cultural and / or social functions or processes are negligibly benefited.	+1
Neutral	Where the impact affects the environment in such a way that natural, cultural and / or social functions or processes are not affected.	0
Negligible	Where the impact affects the environment in such a way that natural, cultural and / or social functions or processes are negligibly affected	-1
Minor	Where the impact affects the environment in such a way that natural, cultural and / or social functions or processes are only marginally affected.	-2
Average	Where the affected environment is altered but natural, cultural and / or social functions or processes continue, albeit in a modified way.	-3
Severe	Where natural, cultural and / or social functions or processes are altered to the extent that it will temporarily cease.	-4
Very severe	Where natural, cultural and / or social functions or processes are altered to the extent that it will permanently cease.	-5

#### 3.6.7 Impact significance

The impact magnitude and significance rating is utilised to rate each identified impact in terms of its overall magnitude and significance.

Impact	Rating	Description	Quantitative rating
Positive	High	Of the highest positive order possible within the bounds of impacts that could occur.	+12-16
	Medium	Impact is real, but not substantial in relation to other impacts that might take effect within the bounds of those that could occur. Other means of achieving this benefit are approximately equal in time, cost and effort.	+6-11
	Low	Impacts is of a low order and therefore likely to have a limited effect. Alternative means of achieving this benefit are likely to be easier, cheaper, more effective and less time consuming.	+1-5
No impact	No impact	Zero impact	0
Negative	Low	Impact is of a low order and therefore likely to have little real effect. In the case of adverse impacts, mitigation is either easily achieved or little will be required, or both. Social, cultural, and economic	-1-5
	Medium	activities of communities can continue unchanged. Impact is real, but not substantial in relation to other impacts that might take effect within the bounds of those that could occur. In the case of adverse impacts, mitigation is both feasible and fairly possible. Social cultural and economic activities of communities are changed but can be continued (albeit in a different form). Modification of the project design or alternative action may be required.	-6-11
	High	Of the highest order possible within the bounds of impacts that could occur. In the case of adverse impacts, there is no possible mitigation that could offset the impact, or mitigation is difficult, expensive, time- consuming or a combination of these. Social, cultural and economic activities of communities are disrupted to such an extent that these come to a halt.	-12-16

#### Table 20: Impact magnitude and significance rating

## 3.7 Positive and negative impacts of the proposed activity (initial site layout) and alternatives on the environment and community that may be affected

Provide a discussion in terms of advantages and disadvantages of the initial site layout compared to alternative layout options to accommodate concerns raised by affected parties.

Now there is no alternative layout. Should we receive comments that warrant changing site layout, Niche Mining Resources 247 (Pty) Ltd will implement changes to ensure that no one is negatively affected.

The invasive activities that entail the drilling of at least five exploration holes will have a minimal environmental and social impact as the drill site will be confined to an area of approximately 0.9 Ha of the 5947.71 hectares (Ha) sized property. This needs to be viewed in the context of the entire prospecting license area under application which covers, and it needs to be kept in mind that of the identified impacts will occur for a limited time and the extent of the impacts will be localized. All the identified impacts can be suitably mitigated with the residual impact ratings being of low significance. After drilling activities have been completed and the drill pads rehabilitated to predrilling status, the impacts will cease to exist.

#### 3.7.1 Potential impact on heritage resources

Fieldwork in assistance with the landowner has indicated that no graves; this was to support the desktop investigations. There is potential for the presence of stone kraals based on the past studies in the surrounding areas and also due to fieldwork conducted whereby old houses where noticed in the area.

Other heritage impact will occur once drill sites have been identified and on-site activities commences. As such, it is recommended that the Heritage Impact Assessment only be undertaken prior to these planned activities. The Heritage Impact Assessment will be conducted over identified localised drill sites to identify any cultural, heritage and or archaeological features which it may impact. The fact that the prospecting activities will be undertaken in a phased approach will allow the prospecting team to demarcate areas of cultural and/or heritage significance (such as graves and stone kraals). With the early identification of these, the impact on them will be avoided.

### 3.7.2 Potential impacts on communities, individuals or competing land uses in close proximity

The following impacts are regarded as community impacts:

- Potential water and soil pollution resulting from chemical spills and soil erosion
- Noise due to the undertaking drilling machines

- Poor access control resulting in impacts on cattle movement, breeding and grazing practices
- Influx of persons (job seekers) to site as a result of increased activity and the possible resultant increase in opportunistic crime
- Visual Impact

Prospecting will be undertaken by specialist sub-contractors and it is not anticipated that employment opportunities for local and/or regional communities will result from the prospecting activities.

#### 3.7.3 Water quality and availability

There is one major dam (Molatedi Dam) which host non perennial rivers in the proposed site. Possible pollution sources include stockpiled soil and all areas cleared of vegetation. The eroded soil particles may be carried by storm water to these rivers and the dam which will result in an increase in the Total Suspended Solids (TSS) and Total Dissolved Solids (TDS) of the water courses. The storage of dangerous goods, temporary ablution facilities and discharge of drill fluids may also lead to surface water pollution if not managed appropriately.

Limited quantities of dangerous goods (fuel, oil and lubricants) will be stored on site. The transportation, handling and storage of such materials may result in spills and further water quality impacts in the event of spills when carried by storm water to the water courses. This impact is considered a cumulative impact due to the potential contribution to water quality deterioration of the river systems if not managed appropriately.

#### 3.7.4 Influx of persons resulting in increased crime rates

The potential impacts of an increase in crime rates associated with an influx of unemployed persons travelling to mine sites seeking employment, may occur.

#### 3.7.5 Visual impact

The general characteristics of the site and the surrounding area are regarded to be that of "wilderness" and prospecting activities may result in localised visual impacts.

#### 3.7.6 Positive impacts (Advantages)

While no significant short-term positive impacts are associated with the prospecting activities, in the event that a viable Manganese, nickel and chrome reserve is confirmed, and pending the outcome of a detailed social and environmental impact assessment process, positive socio-economic benefits must be investigated and optimised.

#### 3.8 The possible mitigation measures that could be applied and the level of risk

With regard to the issues and concerns raised by affected parties provide a list of the issues raised and an assessment/discussion of the mitigations or site layout alternatives available to accommodate or address their concerns, together with an assessment of the impacts or risks associated with the mitigation or alternatives considered.

The following section provides a summary of the key management measures associated with the impacts identified in the previous section. The detailed rating and management plan is presented in Section J.

#### 3.8.1 Measures to manage the potential impact on heritage resources

The fact that the prospecting activities will be undertaken in a phased approach will provide the opportunity to the prospecting team to demarcate areas of cultural and/or heritage significance (such as graves and stone kraals). With the early identification of these, negative impacts will be avoided. A Heritage Impact Assessment will be undertaken on each identified area where drilling activities are planned.

Prior to the establishment of new access roads, a Heritage Impact Assessment must be undertaken and mitigation and/or management measures for the protection of such resources must be implemented. Should any unknown heritage sites be identified during the drilling activities, all activities will cease immediately and the SAHRA will be contacted and an appropriate Heritage Impact Assessment will be undertaken on the site identified.

### 3.8.2 Measures to manage impacts on communities, individuals or competing land uses in close proximity

- Pollution prevention
  - Mitigation and management measures must be implemented to prevent environmental pollution which may impact environmental resources utilised by communities, landowners and other stakeholders. These mitigation and management measures are discussed in the following section.
- Noise due to drilling and prospecting activities
  - Directly affected, adjacent landowners and game farms in proximity to the site will be informed of the planned drilling and a grievance mechanism will be made available.
  - Site activities will be conducted during daytime hours 07h00–17h00 to avoid night time noise disturbances and collisions with fauna.
- Poor access control resulting in impacts on cattle movement, breeding and grazing practices

- Access control procedures must be agreed on with farm owners and all staff trained on these procedures.
- Influx of persons (job seekers) to site as a result of increased activity and the possible resultant increase in opportunistic crime
  - Casual labour will not be recruited at the site, to eliminate the incentive for persons travelling to site seeking employment.
  - The landowners (all private and state landowners) will be notified of unauthorised persons encountered on site.
  - If deemed necessary, the South African Police Service will be informed of unauthorised persons encountered on site.
- Visual impact
  - Based on visual observation, wet dust suppression will be undertaken to manage dust emissions from vehicle movement and other construction activities when needed.
     Depending on the need and quantity of water used for wet suppression, a suitable, low environmental impact chemical suppression alternative must be considered to conserve water resources.
  - The portable ablution facilities, vertical water tanks and any other infrastructure should be acquired with a consideration for colour. Natural earth, green and matte black options, which will blend in with the surrounding area, must be favoured.
  - A waste management system will be implemented, and sufficient waste bins will be provided on-site. A fine system will be implemented to further prohibit littering and poor housekeeping practices.
  - Prospecting will be undertaken by specialist sub-contractors and it is not anticipated that employment opportunities for local and/or regional communities will result from the prospecting activities.

#### 3.8.3 Measures to manage the potential impact on water quality and availability

Potential water and soil pollution impacts resulting from hydrocarbon spills and soil erosion will be mitigated and managed as follows:

- Existing tracks and roads must be used as far as possible to minimise the potential for soil erosion. Where access to drill sites must be established, and if required, raised blade clearing will be undertaken with a view to maintain vegetation cover to limit soil erosion potential.
- Soil disturbances are to be limited as far as is practicable to minimise the potential for soil erosion.

- When establishing the drill pad, topsoil including the remaining vegetation, will be stripped and stockpiled up-slope of the pad. The stockpile will be shaped to divert stormwater around the drill pad to minimise soil erosion of the pad. Stockpiled topsoil will be used during rehabilitation efforts.
- Where practicable topsoil will be stripped to a depth of 10 cm.
- Topsoil will be stockpiled to a maximum height of 1.5m with a side slope of not more than 1:3.
- Mechanical erosion control methods will be implemented if required. This may include the use of geotextiles to stabilise slopes.
- To reduce the potential for water pollution during the drilling activities, a sump will be constructed with sufficient capacity to receive drill fluids and allow for evaporation.
- The sump will be constructed to divert storm water away from and/or around the sump to avoid clean storm water inflow.
- Oils and lubricant will be stored in secondary containment structures.
- Where possible, vehicle maintenance will be undertaken off-site.
- In the event that vehicle maintenance is undertaken on-site (i.e. such as breakdown maintenance), drip trays and/or UPVC sheets will be used to prevent spills and leaks onto the soil.
- A waste management system will be implemented, and sufficient waste bins will be provided for onsite. A fines system will be implemented to further prohibit littering and poor housekeeping practices.
- Waste separation will be undertaken at source and separate receptacles will be provided (i.e. general waste, recyclables and hazardous waste).
- Receptacles will be closed (i.e. fitted with a lockable lid) to eliminate the possibility of access by animals overnight.
- Waste will be removed and disposed of at an appropriately licensed landfill (facility disposal licenses will be verified) and recyclables will be taken to a licensed recycling facility.
- Drill holes must be temporarily plugged immediately after drilling is completed and remain plugged until they are permanently plugged below ground to eliminate the risk posed to fauna by open drill holes.
- Drill holes must be permanently capped as soon as possible.

#### 3.9 Motivation where no alternative sites were considered

The proposed prospecting area is targeted as, historically, several gold occurrences are known in the area, and number of these have been exploited for gold in the past. The site is therefore regarded as the preferred site and alternative sites are not considered.

#### 3.10 Statement motivating the alternative development location in the overall site

Provide a statement motivating the final site layout that is proposed.

As is clear from the information provided, each of the phases is dependent on the results of the preceding phase. The location and extent of possible drilling will be determined based on information derived from the desktop study. Drill sites will be selected to avoid known heritage features and water courses where practicable.

### 3.11 Full description of the process undertaken to identify, assess and rank the impacts and risks the activity will impose on the preferred site (in respect of the final site layout plan) through the life of the activity

Including (i) a description of all environmental issues and risks that where identified during the environmental impact assessment process and (ii) an assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures.

### In order to identify the potential impacts associated with the proposed prospecting activities, the following steps were undertaken:

The stakeholder consultation process is currently being conducted in an interactive manner, providing landowners and identified stakeholders with the opportunity to provide input into the project. This is a key focus, as the local residents can provide site-specific information, which may not be available in desktop research material. Stakeholders are requested (as part of the BID) to provide their views on the project and any potential concerns they may have. All comments and concerns will be captured and included in the impact assessment.

A detailed desktop investigation was undertaken to determine the environmental setting in which the project is located. Based on the desktop investigations, various resources were used to determine the significance and sensitivity of the various environmental considerations. The desktop investigation involved the use of:

- South African National Biodiversity Institute (SANBI) Biodiversity Geographic Database LUDS system
- GIS base maps
- DWA information documents like the ISP and Groundwater Vulnerability Reports

- Municipal Integrated Development Plan
- Municipal Strategic Development Framework

#### 3.12 Assessment of each identified potentially significant impact and risk

This section of the report must consider all the known typical impacts of each of the activities (including those that could or should have been identified by knowledgeable persons) and not only those that were raised by registered interested and affected parties.

#### NAME OF ACTIVITY POTENTIAL IMPACT ASPECTS PHASE MITIGATION TYPE Including the potential E.a. for prospecting - drill **AFFECTED** In which impact is Modify, remedy, control, or stop) Significance if not site, site camp, ablution impacts for cumulative anticipated, e.g. through, e.g. noise control measures, Significance if mitigated facility, accommodation, impacts, e.a. dust, noise, construction. storm-water control, dust control. drainage, surface equipment storage, commissioning. rehabilitation, design measures, nitigated sample storage, site disturbance, fly rock and operational blasting controls, avoidance, office and access route. surface water contamination. relocation and alternative activity. decommissionina. closure, post-closure. Phase 1: Data acquisition and desktop study Data collection and 1. None identified. N/A Planning N/A 1. No mitigation proposed N/A assessment (desktop only) Data Assessment 2. None identified. N/A Plannina N/A 2. No mitigation proposed N/A Phase 2: Data acquisition and desktop study 3. Destruction and/or Loss of Construction phase 3. Map indicating the location of each 10 6 Site access disturbance of onsite fauna and of the drilling sites must be submitted to fauna and flora. flora the relevant landowners, as well as to the DMR and DWS. Upon agreement of the location of the activities can the applicant proceed. 4. Use existing track and roads in all

#### Table 21: Impact assessment and management type

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instances as far as is practicable.

NAME OF ACTIVITY E.g. for prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office and access route.	POTENTIAL IMPACT Including the potential impacts for cumulative impacts, e.g. dust, noise, drainage, surface disturbance, fly rock and surface water contamination.	ASPECTS AFFECTED	PHASE In which impact is anticipated, e.g. construction, commissioning, operational decommissioning, closure, post-closure.	Significance if not mitigated	MITIGATION TYPE Modify, remedy, control, or stop) through, e.g. noise control measures, storm- water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation and alternative activity.	Significance if mitigated
					<ul> <li>5. Where track clearing is necessary, raised blade clearing will be conducted to minimize disturbance and aid rehabilitation efforts and significant vegetation such as trees and large shrubs will be avoided.</li> <li>6. Site activities will be conducted during daytime hours 07h00 – 17h00 to avoid night time noise disturbances and night time collisions with fauna.</li> <li>7. Vehicle speed will be reduced, particularly in highly vegetated areas is one way to avoid deaths by vehicle impacts.</li> </ul>	
	<ol> <li>Soil compaction resulting from repeated use of access roads to drill sites.</li> </ol>	Loss of soil resources	Construction phase	8	<ul> <li>8. Where track clearing is necessary, raised blade clearing be conducted to minimize disturbance and aid rehabilitation efforts.</li> <li>9. As part of rehabilitation, all compacted roads and drill pads will be ripped and re-vegetated.</li> </ul>	5
	5. Vehicle traffic noise impact affecting cattle and / or wildlife.	Loss of fauna	Construction phase	6	10. Site activities will be conducted during daytime hours 07h00 – 17h30 to avoid night time noise disturbances.	4

NAME OF ACTIVITY E.g. for prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office and access route.	POTENTIAL IMPACT Including the potential impacts for cumulative impacts, e.g. dust, noise, drainage, surface disturbance, fly rock and surface water contamination.	ASPECTS AFFECTED	PHASE In which impact is anticipated, e.g. construction, commissioning, operational decommissioning, closure, post-closure.	Significance if not mitigated	MITIGATION TYPE Modify, remedy, control, or stop) through, e.g. noise control measures, storm- water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation and alternative activity.	Significance if mitigated
	<ol> <li>Poor access control resulting in impacts on cattle movement, breeding and grazing practices.</li> </ol>	Loss of fauna	Construction phase	10	11. Access control procedures must be agreed on with farm owners and staff trained.	8
	<ol> <li>Potential destruction of heritage resources.</li> </ol>	Loss of Cultural and/or Heritage Significanc e	Construction phase	12. Prior to the establishment of new access roads, a her impact assessment must be undertaken and mitigation of or management measure for the protection of such reso must be implemented		
<ul> <li>Site establishment activities including:</li> <li>Vegetation clearing of drill pad area</li> <li>Topsoil stripping and stockpiling</li> <li>Drill pad compaction</li> <li>Excavation and lining of drill water sump</li> <li>Erection of temporary site office shaded area, potable ablution</li> </ul>	8. Destruction and / or disturbance of onsite fauna and flora.	Loss of Fauna and Flora	Construction phase	10	<ul> <li>13. The removal of vegetation within the drill pad area will be minimized.</li> <li>14. If practicable, raised blade clearing be conducted for the entire drill pad to minimize disturbance and aid rehabilitation efforts.</li> <li>15. The design of the drill fluid sump must incorporate effective fauna egress to avoid entrapment.</li> <li>16. A fire emergency procedure will be developed to contain and minimize the destruction of flora and faunal habitat which may result from fire.</li> </ul>	7

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS	PHASE		MITIGATION TYPE	
E.g. for prospecting - drill	Including the potential	AFFECTED	In which impact is	<b>5</b>	Modify, remedy, control, or stop)	
site, site camp, ablution	impacts for cumulative		anticipated, e.g.	ů,	through, e.g. noise control measures,	
facility, accommodation,	impacts, e.g. dust, noise,		construction,	Significance if not mitigated	storm- water control, dust control,	e ii
equipment storage,	drainage, surface		commissioning,	d in c	rehabilitation, design measures,	Significance mitigated
sample storage, site	disturbance, fly rock and		operational	iicc ate	blasting controls, avoidance,	ate
office and access route.	surface water contamination.		decommissioning,	Significan	relocation and alternative activity.	Significan mitigated
			closure, post-closure.	, Siç		Siç
faculties and water	9. Soil disturbance and	Loss of soil	Construction phase	11	17. Topsoil including the remaining	7
storage tanks and core	topsoil stockpiling	resources			vegetation, will be stripped and	
bay	resulting in soil				stockpiled up-slope of the pad. The	
• Erection of fuel storage	compaction and erosion.				stockpile will be shaped to divert storm	
tank					water around the drill pad to minimize	
<ul> <li>Erection of safety</li> </ul>					soil erosion of the pad.	
barrier					18. Where practicable topsoil will be	
Waste generation and					stripped to a depth of 10cm.	
management					19. Vegetation removed through lower	
					blade clearing will be mixed with	
					topsoil to increase organic content and	
					to preserve the seed bank in order to	
					aid rehabilitation efforts.	
					20. Topsoil will be stockpiles to a	
					maximum height of 1.5m with a side	
					slope of not more than 1:3.	
					21. Mechanical erosion control	
					methods will be implemented if	
					required. This may include the use of	
					geotextiles to stabilize slopes.	
	10. Dust emission resulting	Dust	Construction phase	10	22. Based on visual observation, wet	6
	from site clearing, soil	emissions			dust suppression will be undertaken to	
	stripping and				manage dust emissions from vehicle	
	construction activities				movement and other construction	
	(including vehicle				activities as and when needed.	

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NAME OF ACTIVITY E.g. for prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office and access route.	<b>POTENTIAL IMPACT</b> Including the potential impacts for cumulative impacts, e.g. dust, noise, drainage, surface disturbance, fly rock and surface water contamination.	ASPECTS AFFECTED	PHASE In which impact is anticipated, e.g. construction, commissioning, operational decommissioning, closure, post-closure.	Significance if not mitigated	MITIGATION TYPE Modify, remedy, control, or stop) through, e.g. noise control measures, storm- water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation and alternative activity.	Significance if mitigated
	entrained dust).				23. Depending on the need and quantity of water used for wet suppression, a suitable, low environmental impact chemical suppression alternative must be considered in order to conserve water resources.	
	<ol> <li>Visual Impact affecting visual character and "sense of place".</li> </ol>	Loss in aesthetics	Construction phase	6	24. The shaded office area, portable ablution facilities, vertical water tanks and any other infrastructure should be acquired with a consideration for color. Natural earth, green and mat black options which will blend in with the surrounding area must be favored.	5
	12. Influx of persons (job seekers) to site as a result of increased activity resulting in increased incidents of theft and opportunistic crime.	Increase in petty crimes	Construction phase	8	<ul> <li>25. Casual labour will not be recruited at the site to eliminate the incentive for persons travelling to site seeking employment.</li> <li>26. The landowner (all private and state land owners) will be notified of unauthorized persons encountered on site.</li> <li>27. If deemed necessary, the South African Police Service will be informed</li> </ul>	7

NAME OF ACTIVITY E.g. for prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office and access route.	POTENTIAL IMPACT Including the potential impacts for cumulative impacts, e.g. dust, noise, drainage, surface disturbance, fly rock and surface water contamination.	ASPECTS AFFECTED	PHASE In which impact is anticipated, e.g. construction, commissioning, operational decommissioning, closure, post-closure.	Significance if not mitigated	MITIGATION TYPE Modify, remedy, control, or stop) through, e.g. noise control measures, storm- water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation and alternative activity.	Significance if mitigated
	13. Potential destruction of heritage resources.	Loss of Cultural and/or Heritage Significanc e	Construction phase	assessmer managen	of unauthorized persons encountered on site. the site establishment, a heritage impact the must be undertaken and mitigation and ment measure for the protection of such res implemented	
<ul> <li>Exploration drilling and core sample collection and storage including:</li> <li>Scout and delineation drilling</li> <li>Drill maintenance and re-fueling</li> </ul>	<ol> <li>Water and soil pollution resulting from disposal of drill fluids.</li> </ol>	Loss of water resources, loss of soil resources	Operational phase	12	<ul> <li>29. A sump will be constructed with a sufficient capacity to receive drill fluids and allow for evaporation.</li> <li>30. The sump will be constructed to divert stormwater away and / or around the sump to avoid clean stormwater inflow.</li> </ul>	5
<ul> <li>Core sample collection and storage</li> <li>Drill fluid collection, storage and evaporation</li> <li>Waste generation and management</li> </ul>	<ol> <li>Continued soil erosion from topsoil stockpile and soil compaction from drill pad platform.</li> </ol>	Loss of soil resources	Operational phase	11	<ul> <li>31. In the event that raise blade</li> <li>clearing is not undertaken, and the drill</li> <li>pad is cleared, topsoil will be stockpiles</li> <li>to a maximum height of 1.5m with a</li> <li>side slope of not more than 1:3.</li> <li>32. The topsoil stockpile will be shaped</li> <li>to divert storm water around the drill</li> <li>pad to minimize soil erosion of the pad.</li> <li>33. Management efforts through the</li> </ul>	7

NAME OF ACTIVITY E.g. for prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office and access route.	POTENTIAL IMPACT Including the potential impacts for cumulative impacts, e.g. dust, noise, drainage, surface disturbance, fly rock and surface water contamination.	ASPECTS AFFECTED	PHASE In which impact is anticipated, e.g. construction, commissioning, operational decommissioning, closure, post-closure.	Significance if not mitigated	MITIGATION TYPE Modify, remedy, control, or stop) through, e.g. noise control measures, storm- water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation and alternative activity.	Significance if mitigated
					methods will be implemented if required. This may include the use of geotextiles.	
	16. Potential water and soil pollution resulting from hydrocarbon spills and drill maintenance activities.	Loss of water resources, loss of soil resources	Operational phase	12	<ul> <li>34. Fuel storage tanks will have a secondary containment structure with a capacity of 110% of the total tank capacity.</li> <li>35. Oils and lubricant will be stored within secondary containment structures.</li> <li>36. Where practicable, vehicle maintenance will be undertaken offsite.</li> <li>37. In the event that vehicle maintenance is undertaken on-site (i.e. such as breakdown maintenance), drip trays and / or UPVC sheets will be used to prevent spills and leaks onto the soil.</li> <li>38. Unused machinery must be completely drained of oil and other hydrocarbons to ensure that leaks do not develop.</li> <li>39. Regular inspections of all vehicles must be carried out to ensure that all</li> </ul>	5

NAME OF ACTIVITY E.g. for prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office and access route.	POTENTIAL IMPACT Including the potential impacts for cumulative impacts, e.g. dust, noise, drainage, surface disturbance, fly rock and surface water contamination.	ASPECTS AFFECTED	PHASE In which impact is anticipated, e.g. construction, commissioning, operational decommissioning, closure, post-closure.	Significance if not mitigated	MITIGATION TYPE Modify, remedy, control, or stop) through, e.g. noise control measures, storm- water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation and alternative activity.	Significance if mitigated
					<ul> <li>leaks are identified early and rectified.</li> <li>40. A sufficient number of waste receptacles will be provided.</li> <li>41. Waste separation will be undertaken at source and separate receptacles will be provided (i.e. general waste, recyclables and hazardous waste).</li> <li>42. Receptacles will be closed (i.e. fitted with a lockable lid) to eliminate the possibility of access by animals overnight.</li> <li>43. Wastes will be removed and disposed of at an appropriately licensed landfill (facility disposal licenses will be verified) and recyclables will be taken to a licensed recycling facility.</li> </ul>	
	<ol> <li>Dust emissions from drilling and general site activities (including vehicle entrained dust)</li> </ol>	Increase in dust emissions	Operational phase	10	<ul> <li>44. Based on visual observation wet dust suppression will be undertaken as and when required to manage dust emissions from vehicle movement.</li> <li>45. Depending on the need and quantity of water used for wet suppression, chemical suppression</li> </ul>	6

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NAME OF ACTIVITY E.g. for prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office and access route.	POTENTIAL IMPACT Including the potential impacts for cumulative impacts, e.g. dust, noise, drainage, surface disturbance, fly rock and surface water contamination.	ASPECTS AFFECTED	PHASE In which impact is anticipated, e.g. construction, commissioning, operational decommissioning, closure, post-closure.	Significance if not mitigated	MITIGATION TYPE Modify, remedy, control, or stop) through, e.g. noise control measures, storm- water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation and alternative activity.	Significance if mitigated
	<ul> <li>18. Visual Impact affecting visual character and "sense of place"</li> <li>19. Vehicle traffic and drill</li> </ul>	Loss in aesthetic value	Operational phase Operational phase	6	<ul> <li>order to conserve water resources.</li> <li>46. Visual impact of structures will be mitigated through measures as included in Item 35.</li> <li>47. Visual dust dispersion will be mitigated through measures as included in Item 33.</li> <li>48. Site activities will be conducted</li> </ul>	5
	noise impact affecting wildlife game farm animals.	fauna			during daytime hours 07h00 – 17h30 to avoid night time noise disturbances.	4
	20. Poor access control resulting in impacts on cattle movement, breeding and grazing practices.	Loss of cattle	Operational phase	10	49. Access control procedures must be agreed on with farm owners.	8
	21. Influx of persons (job seekers) to site as a result of increased activity resulting in increased incidents of theft and opportunistic crime.	Increase in petty crimes	Operational phase	8	<ul> <li>50. Casual labour will not be recruited at the site to eliminate the incentive for persons travelling to site seeking employment.</li> <li>51. The landowner (the Department of Rural Development and Land Reform) will be notified of unauthorised persons</li> </ul>	7

NAME OF ACTIVITY E.g. for prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office and access route.	POTENTIAL IMPACT Including the potential impacts for cumulative impacts, e.g. dust, noise, drainage, surface disturbance, fly rock and surface water contamination.	ASPECTS AFFECTED	PHASE In which impact is anticipated, e.g. construction, commissioning, operational decommissioning, closure, post-closure.	Significance if not mitigated	MITIGATION TYPE Modify, remedy, control, or stop) through, e.g. noise control measures, storm- water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation and alternative activity.	Significance if mitigated
					encountered on site. 52. If deemed necessary, the South African Police Service will be informed of unauthorized persons encountered on site.	
	22. Impact on the pans and associated ecosystems in the area.	Loss of sensitive environme nts, loss of fauna, loss of flora,	Operational phase	12	<ul> <li>53. The prospecting areas must be clearly demarcated.</li> <li>54. No prospecting activities may be undertaken within the pan areas.</li> <li>55. All site plans must indicate the presence of pans.</li> </ul>	5
<ul> <li>Removal of temporary infrastructure including:</li> <li>Removal of temporary site office shaded area, potable ablution faculties, water storage tanks and core bay</li> <li>Borehole capping</li> </ul>	23. Destruction and/or disturbance of onsite fauna.	Loss of sensitive environme nts, loss of fauna, loss of flora	Decommissioning	10	<ul> <li>56. Drill holes must be temporarily plugged immediately after drilling is completed and remain plugged until they are permanently plugged below ground to eliminate the risk posed to fauna by open drill holes.</li> <li>57. Drill holes must be permanently capped as soon as is practicable</li> </ul>	7
<ul> <li>Borenoie capping</li> <li>Drill pad rehabilitation including:</li> <li>Ripping of drill pad and access road</li> </ul>	24. Dust emissions from decommissioning activities (including vehicle entrained dust).	Increase in dust emissions	Decommissioning	9	<ul> <li>58. Based on visual observation wet</li> <li>dust suppression will be undertaken to</li> <li>manage dust emissions from vehicle</li> <li>movement.</li> <li>59. Depending on the need and</li> </ul>	6

NAME OF ACTIVITY E.g. for prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office and access route.	POTENTIAL IMPACT Including the potential impacts for cumulative impacts, e.g. dust, noise, drainage, surface disturbance, fly rock and surface water contamination.	ASPECTS AFFECTED	PHASE In which impact is anticipated, e.g. construction, commissioning, operational decommissioning, closure, post-closure.	Significance if not mitigated	MITIGATION TYPE Modify, remedy, control, or stop) through, e.g. noise control measures, storm- water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation and alternative activity.	Significance if mitigated
<ul> <li>Re-spreading of stockpiled topsoil</li> <li>Re-vegetation</li> </ul>					quantity of water used for wet suppression, chemical suppression alternatives must be considered in order to conserve water resources.	
	25. Poor access control resulting in impacts on cattle movement, breeding and grazing practices.	Loss of cattle	Decommissioning	10	60. Access control procedures must be agreed on with farm owners and all staff trained.	8
	26. Potential water and soil pollution resulting from hydrocarbon spills	Loss of water resources, loss of soil resources	Decommissioning	12	<ul> <li>61. All fuel storage tanks will be emptied prior to removal.</li> <li>62. Drill holes must be permanently capped as soon as is practicable to eliminate the risk of groundwater contamination.</li> <li>63. Wastes will be removed and disposed of at an appropriately licensed landfill (facility disposal licenses will be verified) and recyclables will be taken to a licensed recycling facility.</li> </ul>	7
	27. Soil erosion resulting from the re-spreading of topsoil before vegetation	Loss of soil resources	Decommissioning	11	64. Mechanical erosion control methods will be implemented if required. This may include the use of	7

NAME OF ACTIVITY E.g. for prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office and access route.	POTENTIAL IMPACT Including the potential impacts for cumulative impacts, e.g. dust, noise, drainage, surface disturbance, fly rock and surface water contamination.	ASPECTS AFFECTED	PHASE In which impact is anticipated, e.g. construction, commissioning, operational decommissioning, closure, post-closure.	Significance if not mitigated	MITIGATION TYPE Modify, remedy, control, or stop) through, e.g. noise control measures, storm- water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation and alternative activity.	Significance if mitigated
	is re-established.				<ul> <li>geotextiles.</li> <li>65. Re-vegetation will be conducted through hand seeding exposed areas using indigenous grass species as determined by a suitably qualified ecologist.</li> <li>66. Re-vegetation efforts will be monitored every second month for a period of six months after initial seeding.</li> <li>67. An effective vegetation cover of 45% must be achieved. Re-seeding will be undertaken if this cover has not been achieved after six months.</li> </ul>	

The supporting impact assessment conducted by the EAP must be attached as an appendix, marked Appendix F.

# 3.13 Summary of specialist reports

This summary must be completed if any specialist reports informed the impact assessment and final site layout process and must be in the following tabular form.

List of studies undertaken	Recommendations of specialist reports	Specialist recommendations that have been included in the EIA report (mark with an X where applicable)	Reference to applicable section of report where specialist recommendations have been included
Biodiversity Study	<ul> <li>The impact on natural habitat types can never be completely ameliorated if development proceeds but can be minimized. Where natural habitat types are to be transformed, especially the woodland areas, consideration should be given to the quality of the habitat based on the presence of micro-habitats and areas of high quality must be conserved.</li> <li>Endangered plant and animal species should be identified and relocated to safe habitats.</li> <li>Protected vegetation within the vicinity should be identified, demarcated and marked. The content of the tags should include the protection status, common name of the tree, and a warning not to cut, disturb or damage the tree. Therefore, plants or trees should not be removed, damaged or destroyed further without authorization by the relevant authorities or person(s).</li> <li>All unattended trenches should be demarcated and fenced off to minimise the potential injury to humans and animals.</li> <li>A programme to manage alien invasive species should be developed and implemented. The</li> </ul>	X	Founa and Flora Section

monitoring programme should be part of the	
operational EMP.	
Intentional killing of invertebrates and	
herpetofauna should be avoided by means of	
awareness programmes presented to the labour	
force. The labour force should be made aware of	
the conservation issues pertaining to the taxa	
occurring on the study site.	
All activities must be limited to daylight hours.	
Activities and associated vehicles and machinery	
should take cognizance of the weather	
conditions, the prevailing wind direction and	
vehicles and machinery should adhere to speed	
limits and be restricted to established haul road	
network. Schedule of spraying water (with a	
suitable dust suppression agent) with a dump	
truck on dust prone portions of the working area	
should be implemented.	
All medicinal species (from affected vegetation	
units) must be removed with the necessary	
permits and established in a nursery. After	
construction, the species must be re-planted	
during the rehabilitation phase. A management	
plan (to be compiled by the ECO) should be	
implemented to ensure proper establishment of	
ex situ individuals and should include a	
monitoring programme for at least two years	
after re-establishment (to ensure successful	
translocation).	
Rehabilitation should consist of indigenous	
species only, and preferably of species native to	
species only, and preferably of species native to	

the study site and immediate surroundings. The
species selected should strive to represent
habitat types typical of the ecological
landscape prior to construction. Rehabilitation
should strive to increase spatial habitat
heterogeneity. A monitoring programme should
be implemented to evaluate the success of
rehabilitation and to take necessary action if
required.

Attach copies of Specialist Reports as appendices (Y).

## 4 Environmental impact statement

## 4.1 Summary of the key findings of the environmental impact assessment

The proposed prospecting site is classified as non-arable land with a moderate to low grazing capacity with cattle and game farming being the predominant land use in the area. No land claims have been lodged against all the farm portions for which prospecting right have been applied for, and an enquiry was submitted to the North West Department of Rural Development and Land Reform.

The protection of water quality and availability has been identified as key aspects of importance within the municipality and the general region together with protection of reserves.

There is one major dam river and a river, located within the boundaries of the proposed prospecting area. The identified water courses (including rivers, streams and pans) may be regarded as unique habitats which support regional ecological functioning.

The conservation status of the area is least threatened and only about 1% of the vegetation type has already been transformed. Graves were not identified within the prospecting area but only old houses.

## 4.2 Final site map

Provide a map at an appropriate scale which superimposes the proposed overall activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers. Attach as Appendix H.

Please refer to Annexure H for the composite map.

# 4.3 Summary of positive and negative impacts and risks of proposed activity and identified alternatives

- Increased ambient noise levels resulting from drilling and increased traffic movement during all prospecting phases as well as drilling activities.
- Potential water and soil pollution impacts resulting from chemical (oil, diesel, hydraulic and drilling fluid) spills and soil erosion which may impact environmental resources utilised by landowners.
- Potential water and soil pollution impacts resulting from chemical (oil, diesel, hydraulic and drilling fluid) spills and soil erosion which may impact on ecosystem functioning.
- Increased vehicle activity within the area resulting in the possible destruction and disturbance of fauna and flora.

- Poor access control to farms which may impact on cattle movement, breeding and grazing practices.
- Influx of persons (job seekers) to site as a result of increased activity and the possible resultant increase in opportunistic crime.
- Potential visual impacts caused by drilling activities.
- Prospecting will be undertaken by specialist sub-contractors and it is not anticipated that employment opportunities for local and/or regional communities will result from the prospecting activities.

# 4.4 Proposed impact management objectives and impact management outcomes for inclusion in the EMPr

Based on the assessment and where applicable the recommendations from specialist reports, the recording of proposed impact management objectives, and the impact management outcomes for the development for inclusion in the EMPr as well as for inclusion as conditions of authorisation

## The objectives of the EMPr will be to:

- Provide sufficient information to strategically plan the prospecting activities and avoid unnecessary social and environmental impacts.
- Provide sufficient information and guidance to plan prospecting activities in a manner that would reduce impacts (social and environmental) as far as possible.
- Ensure an approach that will provide the necessary confidence in terms of environmental compliance.
- Provide a management plan that is effective and practical for implementation.

Through the implementation of the proposed mitigation measures, it is anticipated that the identified social and environmental Impacts can be managed and mitigated effectively. Through the implementation of the mitigation and management measures, it is expected that:

- Noise impacts can be managed through consultation and the restriction of operating hours
- Soil and water pollution can be effectively managed through containment
- Ecological impact can be managed through the implementation of pollution prevention measures, minimising land clearing, restricting working hours (faunal disturbance) and rehabilitation
- Access control to farms can be managed through developing and ensuring compliance to appropriate access control procedures
- Risks associated with crime can be mitigated by avoiding recruitment activities on site, as well as monitoring and reporting.

• Visual impact can be minimised by giving consideration to drill site infrastructure placement and materials used.

# 4.5 Aspects for inclusion as conditions of authorisation

Any aspects which must be made conditions of the environmental authorisation.

The following conditions should be included into the Authorisation:

- A map detailing the drilling locations should be submitted to the relevant landowners and the DWS and DMR prior to the commencement of these activities
- No activities may be undertaken in the pans
- No activities, with the exception of the driving to fetch, may take place within 100m from any river

# 4.6 Description of any assumptions, uncertainties and knowledge gaps

Which relate to the assessment and mitigation measures proposed.

The following assumptions, uncertainties and gaps are applicable to this project. Due to significant time constraints allowed for the impact assessment, and at the time of compiling the draft Basic Assessment Report and EMP:

- The stakeholder consultation is not yet complete
- Not all landowners were consulted with in person
- Details from the DWS regarding Water Use Licensing requirements is not yet available
- Feedback from the SAHRA is not yet available
- Details regarding the presence and status of land claims are not available
- No Heritage Impact Assessment was undertaken
- No detailed site layout is available due to the nature of the prospecting activities. The study is therefore undertaken as a holistic assessment of the overall site.

# 4.7 Reasoned opinion as to whether the proposed activity should/should not be authorised

- It is the opinion of the EAP that the activity may be authorised
- The proposed prospecting area is targeted as, historically, Manganese, Diamond, Gold & Iron Ore occurrences are known in the area, and a number of these have been exploited for these minerals in the past.
- The site is therefore considered the preferred site and alternative sites are not considered.

• The option of not approving the activities will result in a significant loss to valuable information regarding the mineral status present on these properties. In addition, should economical reserves be present and the applicant does not have the opportunity to prospect, the opportunity to utilise these reserves for future phases will be lost.

# 4.8 Conditions that must be included in the authorisation

The following conditions should be included into the authorisation:

- A map detailing the drilling locations should be submitted to the relevant landowners and the DWS and DMR prior to the commencement of these activities
- No activities may be undertaken in the pans
- A Heritage Impact Assessment must be undertaken where roads will be cleared and where drilling sites will be established, prior to the commencement of these activities
- No activities, with the exception of the driving to fetch water, may take place within 100m from any river

# 4.9 Period for which the environmental authorisation is required

The Prospecting Right has been applied for a period of five years. The Environmental Authorisation should therefore allow for the five years of prospecting and one year for decommissioning and rehabilitation.

# 4.10 Undertaking

Confirm that the undertaking required to meet the requirements of this section is provided at the end of the EMPr and is applicable to both the Basic assessment report and the Environmental Management Programme report.

An undertaken by the EAP and the client is provided for in Section 2 of the EMP.

# 4.11 Financial provision

State the amount that is required to both manage and rehabilitate the environment in respect of rehabilitation.

A financial provision of approximately, R 37230 which includes rehabilitation activities has been made by Niche Mining (Pty) Ltd. A breakdown of these costs is presented in the table below. The applicant undertakes to provide financial provision through funding from the personal account. Please refer to Appendix E (Financial Capability Letter) for more details on the financial provision for the proposed activity.

## CALCULATION OF THE QUANTUM

## 4.12 Explain how the aforesaid amount was derived

The following section details the methodologies adopted to calculate the quantities, associated rehabilitation (clean closure) rates and eventually the final (clean) closure cost estimate

The drilling contractor will be responsible for rehabilitating the drill pad once the drilling activities have been completed at each exploration hole. The responsible exploration geologist will confirm the quality of rehabilitation conducted by drilling contractor and sign it off. The financial guarantee was calculated using the DMR official financial quantum calculator. This information has been provided in the Prospecting Work Programme that was submitted to the DMR. Please refer to Appendix E for more details on the financial provision for the proposed activity.

### 4.12.1 Method of assessment

Singo Consulting (Pty) Ltd used the Guideline Document for the Evaluation of Financial Provisions published by the mining industry. Table 22 presents the step-by-step details on how the financial provision was derived. For the purpose of determining the quantum for closures, it is assumed that the infrastructure will have no salvage value.

Step	Description	DMR applicable table	Outcomes
1	Determine primary mineral and saleable mineral by-products	Table B.12	Mineral: Manganese, Chrome and Nickel Ore
2	Determine Risk Class	Table B.12	Primary Risk Class: C (Small operation, no waste, no processing). Risk Class C is considered a low risk with a low probability of occurrence of the impact with a negligible consequence.
3	Determine the Area Sensitivity	Table B.4	Medium to High Sensitivity. The area is largely being disturbed by cattle farming, however the natural state is still present in good condition. The river systems in this area, although non-perennial is a tributary of the Harts River, which feeds the Vaal River. The landowners are in close proximity to the proposed prospecting activities, although the area is not densely inhabited, and no well-established communities are present. The land in question is used for cattle farming and therefore the local communities (in this case the farmers) drive the bulk of their income directly from the area. The area can be considered sensitive to further development past the prospecting application, should the prospecting activities prove that the area is economically viable for the purposes

#### Table 22: DMR Financial Provision Methodology

Step	Description	DMR applicable table	Outcomes
			of a mining right application, which will compromise the existing economic activity.
4.1	Determine the level of information	N/A	Limited information is available and is based on desktop investigations and stakeholder consultation.
4.2	Determine the closure components	Table B.5	See Table 23 of this report.
4.3	Determine the unit rates for closure components	Table B.6	See Table 23 of this report. The multiplication factor for all components is 1.00.
4.4	Determine and apply the weighting factors	Table B.7 Table B.8	Weighting factor 1 (Nature of the terrain): 1 (generally flat terrain) Weighting factor 2 (Peri-urban, less than 150km from a developed urban area)): 1 .05(Rural/Urban).
4.5	Identify areas of disturbance	N/A	No areas of disturbance are considered in this assessment. The area in which the prospecting activities are planned is considered to be undisturbed.
4.6	Identify closure costs from specialist studies	Table B.9	Due to the fact that the operation in question is only a prospecting operation, no residual impacts should take place. During the Life of Prospecting and ongoing rehabilitation, the self-succession results should be assessed and monitored. If self-succession does not take place satisfactorily the client may be subjected to additional specialist investigations (ecological and pedology) to determine seeding and re-vegetation requirements.
4.7	Calculate Closure Costs	Table B.10	See the following section.

# 4.12.2 Quantity estimation

For the purpose of this assessment, Singo Consulting can confirm that the method adopted to obtain and compile the schedule of quantities is sound, correct, and provides detail that is required by the DMR. The information will allow for continued monitoring and updating of quantities and provides the ideal platform to manage and monitor the actual on-site rehabilitation measures and costs incurred.

# 4.12.3 Determination of rates

The method of determining the applicable rehabilitation rates is based on practical experience and information by third party contractors.

## 4.12.4 Financial provision

The financial provision required by the holder of the mining right must be determined by one or more of the following methods in order to achieve the total quantum of rehabilitation and remediation of environmental impacts and damage, as well as final closure:

- Approved dedicated trust fund
- Financial guarantee from a South African registered bank or any other approved financial institution
- Cash deposit to be deposited at the office of the Regional Manager
- Any other manner determined by the Minister

The client is required to annually assess the total quantum of environmental liability for the operation and ensure that financial provision is sufficient to cover the current liability (in the event of premature closure), as well as the end of life liability.

As per Government Legislature, the client is required to ensure full financial cover for the current liability at any point in the life of the operation. Pecuniary provision must be made for the shortfall between the existing trust fund balance and the premature closure or current environmental rehabilitation liability if applicable.

## 4.13 Confirm that this amount can be provided for from operating expenditure.

Confirm that the amount, is anticipated to be an operating cost and is provided for as such in the mining work programme, Financial and Technical Competence Report or PWP as the case may be.

The amount required to finance the prospecting activities amounts to R 37230. Financing will be sourced from the capital expenditure, as planned by the company; this capital will come from the treasury of the company. The company's annual financial statement for 2019/2020 was also submitted to the DMR for confirmation that the company has funding available to implement the proposed project.

The current expenditure provided for in the PWP does include the calculated financial provision as included in this Basic Assessment, as these values were estimated at the time of the submission of the PWP. The provision for closure must be updated in the PWP for true reflection purposes prior to the decision by the DMR, should this decision be positive.

#### Cost estimate for the proposed prospecting together with labour costs

ACIVITY	YEAR 1 Expenditure (R`)	YEAR 2 Expenditure (R`)	YEAR 3 Expenditure (R`)	YEAR 4 Expenditure (R`)	YEAR 5 Expenditure (R`)
Phase 1 (Months 0 to 12)					
Literature surveys	R 2 500.00	R1 500.00			
Desk top studies	R 10 000.00	R 5 000.00			
Geophysical or geotechnical work	R 10 000.00	R 4 000.00			
Research and target identification		R 5 000.00			
Phase 2 (Months 13 to 24)					
Invasive work, (Drilling 05 boreholes a depth of 50m)		R48 024 9.00	R48 024 9.00	R48 024 9.00	R48 024 9.00
Sampling work		R 25 000.00	R 15 000.00	R 9 000.00	R 5 000.00
Laboratory work		R 22 800.00	R 11 200.00	R 8 800.00	R 4 800.00
Analytical and modelling work			R 40 000.00	R 20 000.00	R 7 000.00
Infil work			R 25 000.00	R 15 000.00	
Bulk sampling and testing to be carried out					
Phase3 (Months 25 to 60)					
BA and BMP for mining right application				R 40 000.00	R 20 000.00
Pre-feasibility studies				R 25 000.00	R 10 000.00
Investment decision making application for mining rights				R 22 800.00	R 10 400.00
Annual Total	R 22,500.00	R 543 549.00	R 571 449.00	R620 849.00	R 537 449.00
				Total Budget	R2 295 796.00

# 4.14 Specific information required by the competent authority

Compliance with the provisions of sections 24(4)(a) and (b) read with section 24 (3) (a) and (7) of the NEMA (Act 107 of 1998). The EIA report must include the:

## 4.14.1 Impact on the socio-economic conditions of any directly affected person.

Provide the results of Investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any directly affected person including the landowner, lawful occupier, or, where applicable, potential beneficiaries of any land restitution claim, attach the investigation report as an Appendix.

# No specific report was generated for the purposes of the socio-economic conditions. All findings are presented hereafter:

# 4.14.1.1 Potential impacts on communities, individuals or competing land uses in close proximity

The following impacts are regarded as community impacts:

- Potential water and soil pollution resulting from spills and soil erosion
- Noise due to the undertaking of the drilling
- Poor access control resulting in impacts on cattle movement, breeding and grazing practices
- Influx of persons (job seekers) to site as a result of increased activity and the possible resultant increase in opportunistic crime
- Visual impact
- Prospecting will be undertaken by specialist sub-contractors and it is not anticipated that employment opportunities for local and/or regional communities will result from the prospecting activities

# 4.14.2 Measures to manage potential impacts on communities, individuals or competing land uses in close proximity

- Pollution prevention
  - Mitigation and management measures must be implemented to prevent environmental pollution which may impact environmental resources utilised by communities, landowners and other stakeholders. These mitigation and management measures are discussed in the following section.
- Noise due to the undertaking of the prospecting activities
  - Directly affected, adjacent landowners and game farms in proximity to the site will be informed of the planned dates of drilling. Mitigation alternatives are limited to timing of the drilling which may affect aspects such as hunting activities on game farms.
  - Farms owners must be consulted and informed of activities which may affect cattle being held in restricted holding pens, to prevent possible injury or damage as a result of animals being startled by the noise.
  - Site activities will be conducted during daytime hours (07h00-17h00) to avoid night time noise disturbances and night time collisions with fauna.
- Poor access control resulting in impacts on cattle movement, breeding and grazing practices

- Access control procedures must be agreed on with farm owners and all staff trained on these procedures.
- Influx of persons (job seekers) to site as a result of increased activity and the possible resultant increase in opportunistic crime
  - Casual labour will not be recruited at the site to eliminate the incentive for persons travelling to site seeking employment
  - The landowner (all private and state land owners) will be notified of unauthorised persons encountered on site
  - If deemed necessary, the South African Police Service will be informed of unauthorised persons encountered on site
- Visual impact
  - Based on visual observation, wet dust suppression will be undertaken to manage dust emissions from vehicle movement and other construction activities as needed. Depending on the need and quantity of water used for wet suppression, a suitable, low environmental impact chemical suppression alternative must be considered to conserve water resources.
  - The portable ablution facilities, vertical water tanks and any other infrastructure should be acquired with a consideration for colour. Natural earth, green and mat black options which will blend in with the surrounding area must be favoured.
  - A waste management system will be implemented and sufficient waste bins will be provided for on-site. A fine system will be implemented to further prohibit littering and poor housekeeping practices.
- Prospecting will be undertaken by specialist sub-contractors and it is not anticipated that employment opportunities for local and/or regional communities will result from the prospecting activities.

# 5 Impact on any national estate referred to in section 3(2) of the National Heritage Resources Act

Provide the results of Investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) with the exception of the national estate contemplated in section 3(2)(i)(vi) and (vii) of that Act, attach the investigation report as Appendix 2.19.2 and confirm that the applicable mitigation is reflected in 2.5.3; 2.11.6.and 2.12.herein.

Prospecting will be undertaken in phases; the first phase being a desktop assessment, followed drilling. Based on the outcome of these activities, the desktop study and potential drill sites will be determined. Potential heritage impact will only occur once the desktop study has been used to identify sites for drilling.

# Other matters required in terms of sections 24(4)(a) and (b) of the Act

The EAP managing the application must provide the competent authority with detailed, written proof of an investigation as required by section 24(4)(b)(i) of the Act and motivation if no reasonable or feasible alternatives, as contemplated in sub-regulation 22(2)(h), exist. The EAP must attach such motivation as Appendix G.

Please refer to Appendix G for the motivation of not investigating for reasonable or feasible alternatives.

## PART B: ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

### 6 Environmental management programme

## 6.1 Details of the EAP

Confirm that the requirement for the provision of the details and expertise of the EAP are already included in PART A, section 1(a) herein as required.

The requirement for the provision of the details and expertise of the EAP are included in PART A, section 1(a).

## 6.2 Description of the aspects of the activity

Confirm that the requirement to describe the aspects of the activity that are covered by the draft environmental management programme is already included in PART A, section (1)(h) herein as required.

The requirement to describe the aspects of the activity that are covered by the draft environmental management programme is already included in PART A, section (1)(h).

## 6.3 Composite map

Provide a map (Attached as an Appendix H) at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that any areas that should be avoided, including buffers.

Please refer to Appendix H for the composite map.

# 6.4 Description of impact management objectives, including management statements

#### 6.4.1 Determination of closure objectives

Ensure that the closure objectives are informed by the type of environment described. Each phase of the prospecting activities depends on the success of the previous. Depending on the outcome of the Phase 1 assessment, a drilling programme will be initiated. The location and extent of drill sites can thus not be determined at this stage.

The rehabilitation plan is developed on the basis that the rehabilitated areas are safe, stable, nonpolluting and able to support a self-sustaining ecosystem similar to surrounding natural environment. To ensure that the rehabilitation plan is aligned with the closure objective, a high level risk assessment of the prospecting components has been undertaken to establish the potential risks associated therewith.

The closure objectives include:

- Eliminating any safety risk associated with drill holes and sumps though adequate drill hole capping and backfilling
- Remove and/or rehabilitate all pollution and pollution sources, such as waste materials and spills
- Establishing the rehabilitated area, which is not subject to soil erosion and may result in the loss of soil, degradation of the environment and pollution of surface water resources
- Restore disturbed area and re-vegetate these areas with grass species naturally occurring in the area to restore the ecological function of such areas as far as is practicable

## 6.4.2 Volumes and rate of water use required for the operation.

No water will be used

# 6.4.3 Has Water Use License been applied for?

The use of abstracting groundwater will be generally authorised in terms of the NWA. Based on the outcomes of discussions with the DWA, the potential abstraction of water due to drilling activities will be clarified. Should it be deemed necessary, on instruction by the department, to submit a water use license application, this will be undertaken.

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
Phase 1: Deskto	p study				
Data collection and assessment (desktop only)	Planning	Entire property	No mitigation proposed	Identification of the potential mineral resources and prospecting activities to occur within sensitive environments such as the pans and river systems, in this event the necessary consultation must be initiated with the DWS.	N/A
Phase 3: Drilling					
Site access	Construction	Less than 16 000m <sup>2</sup>	<ol> <li>Map indicating the location of each drilling site must be submitted to the relevant landowners, and to the DMR and DWS. Upon agreement of the activity location, the applicant can proceed.</li> <li>Use existing track and roads in all instances as far as possible.</li> <li>Where track clearing is necessary, raised blade clearing will be conducted to minimize disturbance and aid rehabilitation efforts and significant vegetation, like trees and large shrubs.</li> <li>Site activities will be conducted during the day from 07h00–17h00 to avoid night time noise disturbances and collisions with fauna.</li> <li>Vehicle speed will be reduced, particularly in highly vegetated</li> </ol>	<ul> <li>The prospecting activities must be undertaken in line with the approved PWP.</li> <li>The financial provision required for rehabilitation must be guaranteed before the commencement of prospecting activities.</li> <li>Activities should stay clear of pans and outside of the 32m river buffer in order to avoid the need to apply for a Section 21 (c) and (i) Water Use License.</li> </ul>	Concurrently with the completion of prospecting activities in an area.

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<ul> <li>areas to avoid deaths by vehicle impact.</li> <li>6. Where track clearing is necessary, raised blade clearing must be conducted to minimize disturbance and aid in rehabilitation efforts.</li> <li>7. As part of rehabilitation, all compacted roads and drill pads will be ripped and revegetated.</li> <li>8. Site activities will be conducted during the day from 07h00-17h00 to avoid night time noise disturbances.</li> <li>9. Access control procedures must be agreed on with farm owners and trained staff.</li> <li>10. Prior to the establishment of new access roads, a Heritage Impact Assessment must be undertaken and mitigation and/ or management measures for the protection of such resources must be implemented</li> </ul>		
Site establishment activities including: • Vegetation clearing of drill pad area • Topsoil stripping	Construction	Approximately 4 000m <sup>2</sup>	<ol> <li>The removal of vegetation in the drill pad area will be minimized.</li> <li>If possible, raised blade clearing must be conducted for the entire drill pad to minimize disturbance and aid rehabilitation efforts.</li> <li>The design of the drill fluid sump must incorporate effective fauna</li> </ol>	<ul> <li>The prospecting activities must be undertaken in line with the approved Prospecting Works Programme.</li> <li>The applicant must adhere to the NEMA Section 2 Principle and ensure that a cradle to grave approach is followed in</li> </ul>	Concurrently with the completion of prospecting activities in an area.

Activities	Phase	Size and scale of	Mitigation measures	Compliance with standards	Time period for
		disturbance			implementation
and stockpiling			egress to avoid entrapment.	terms of waste management	
• Drill pad			14. A fire emergency procedure will be	and that all activities are	
compaction			developed to contain and minimize	undertaken with a	
• Excavation and			the destruction of flora and faunal	precautionary approach.	
• lining of drill			habitat which may result from fire.	Where impacts may result, a	
water sump			15. If the drill pad is cleared of all	proactive manner should be	
<ul> <li>Erection of</li> </ul>			vegetation, lower blade clearing	implemented to ensure that	
temporary site			will be undertaken prior to topsoil	potential negative results are	
office shaded			stripping.	avoided.	
area, potable			16. Topsoil, including the remaining	<ul> <li>The applicant must comply</li> </ul>	
ablution			vegetation, will be stripped and	with the conditions of the	
faculties and			stockpiled up-slope of the pad. The	Environmental Authorization at	
water storage			stockpile will be shaped to divert	all times.	
tanks and core			stormwater around the drill pad to		
bay			minimize soil erosion of the pad.		
• Erection of fuel			17. Where possible, topsoil will be		
storage tank			stripped to a depth of 10cm.		
• Erection of			18. Vegetation removed through lower		
safety barrier			blade clearing will be mixed with		
• Waste			topsoil to increase organic content		
generation and			and to preserve the seed bank in		
management			order to aid rehabilitation efforts.		
			19. Topsoil will be stockpiles to a		
			maximum height of 1.5m with a side		
			slope of not more than 1:3.		
			20. Mechanical erosion control		
			methods will be implemented if		
			required. This may include the use		
			of geotextiles to stabilize slopes.		
			21. Based on visual observation, wet		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<ul> <li>dust suppression will be undertaken to manage dust emissions from vehicle movement and other construction activities as needed.</li> <li>22. Depending on the need and quantity of water used for wet suppression, a suitable, low environmental impact chemical suppression alternative must be considered to conserve water resources.</li> <li>23. The shaded office area, portable ablution facilities, vertical water tanks and any other infrastructure should be acquired with a consideration for color. Natural earth, green and mat black options which will blend in with the surrounding area must be favored.</li> <li>24. Casual labor will not be recruited at the site to eliminate the incentive for persons travelling to site seeking employment.</li> <li>25. The landowner (all private and state land owners) will be notified of unauthorized persons encountered on site.</li> <li>26. If deemed necessary, the South African Police Service will be informed of unauthorized persons</li> </ul>		

Activities			Compliance with standards	Time period for	
		disturbance			implementation
			encountered on site. 27. Prior to site establishment, a Heritage Impact Assessment must be undertaken and mitigation and/or management measures for the protection of such resources must be implemented.		
Exploration drilling and core	Operational	Included into the Site establishment	28. Regular inspections of all vehicles must be carried out to ensure that	• The applicant must adhere to the NEMA Section 2 Principle	Concurrently with the completion of
sample collection and		size of 18 450m <sup>2</sup>	leaks are identified early and rectified.	and ensure that a cradle to grave approach is followed in	prospecting activities in an
storage			29. A sufficient number of waste	terms of waste management	area.
including:			receptacles will be provided.	and that all activities are	
<ul> <li>Scout and delineation</li> </ul>			30. Waste separation will be undertaken at source and separate	undertaken with a precautionary approach.	
drilling			receptacles will be provided (i.e.	Where impacts may result, a	
• Drill			general waste, recyclables and	proactive manner should be	
maintenance			hazardous waste).	implemented to ensure that	
<ul><li>and re-fuelling</li><li>Core sample</li></ul>			31. Receptacles will be closed (i.e. fitted with a lockable lid) to	potential negative results are avoided.	
collection and			eliminate the possibility of access by	<ul> <li>The applicant must comply</li> </ul>	
storage			animals overnight.	with the conditions of the	
• Drill fluid			32. Waste will be removed and	Environmental Authorization at	
collection,			disposed of at an appropriately	all times.	
storage and evaporation			licensed landfill (facility disposal licenses will be verified) and		
Waste			recyclables will be taken to a		
generation and			licensed recycling facility.		
management			33. Based on visual observation, wet		
			dust suppression will be undertaken		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<ul> <li>when required to manage dust emissions from vehicle movement.</li> <li>34. Depending on the need and quantity of water used for wet suppression, chemical suppression alternatives must be considered to conserve water.</li> <li>35. Visual impact of structures will be mitigated through measures as included in Item 35.</li> <li>36. Visual dust dispersion will be mitigated through measures as included in Item 33.</li> <li>37. Site activities will be conducted during the day between 07h00- 17h00 to avoid night time noise disturbances.</li> <li>38. Access control procedures must be agreed on with farm owners.</li> <li>39. Casual labour will not be recruited at the site to eliminate the incentive for persons travelling to site seeking employment.</li> <li>40. The landowner (the Department of Rural Development and Land Reform) will be notified of unauthorised persons encountered on site.</li> <li>41. If deemed necessary, the South African Police Service will be</li> </ul>		

	disturbance			· · · · · · · · · · · · · · · · · · ·
				implementation
ocommissioning	Included into the	<ul> <li>informed of unauthorised persons encountered on site.</li> <li>42. The prospecting areas must be clearly demarcated.</li> <li>43. No prospecting activities may be undertaken in the pan areas.</li> <li>44. All site plans must indicate the presence of pans.</li> <li>45. Drill belos must be temperarily.</li> </ul>	. The applicant must adhere to	
ecommissioning	included into the site establishment size of 18 450m <sup>2</sup>	<ul> <li>plugged immediately after drilling is completed and remain plugged until they are permanently plugged below ground to eliminate risk posed to fauna by open drill holes.</li> <li>46. Drill holes must be permanently capped as soon as possible.</li> <li>47. Based on visual observation, wet dust suppression will be undertaken to manage dust emissions from vehicle movement.</li> <li>48. Depending on the need and quantity of water used for wet suppression, chemical suppression alternatives must be considered to conserve water.</li> <li>49. Access control procedures must be agreed on with farm owners and all staff trained.</li> <li>50. All fuel storage tanks will be</li> </ul>	<ul> <li>The applicant must adhere to the NEMA Section 2 Principle and ensure that a cradle to grave approach is followed in terms of waste management and that all activities are undertaken with a precautionary approach. Where impacts may result, a proactive manner should be implemented to ensure that potential negative results are avoided.</li> <li>The applicant must comply with the conditions of the Environmental Authorization at all times.</li> </ul>	Concurrently with the completion of prospecting activities in an area.
9	commissioning	site establishment	clearly demarcated.43. No prospecting activities may be undertaken in the pan areas.44. All site plans must indicate the presence of pans.commissioningIncluded into the site establishment size of 18 450m245. Drill holes must be temporarily plugged immediately after drilling is completed and remain plugged until they are permanently plugged below ground to eliminate risk posed to fauna by open drill holes.46. Drill holes must be permanently capped as soon as possible.47. Based on visual observation, wet dust suppression will be undertaken to manage dust emissions from vehicle movement.48. Depending on the need and quantity of water used for wet suppression, chemical suppression alternatives must be considered to conserve water.49. Access control procedures must be agreed on with farm owners and all staff trained.	clearly demarcated.43. No prospecting activities may be undertaken in the pan areas.44. All site plans must indicate the presence of pans.commissioningIncluded into the site establishment size of 18 450m25. Drill holes must be temporarily plugged immediately after drilling is completed and remain plugged until they are permanently plugged below ground to eliminate risk posed to fauna by open drill holes.46. Drill holes must be temporarily plugged as soon as possible.• The applicant must adhere to the NEMA Section 2 Principle and ensure that a cradle to grave approach is followed in terms of waste management and that all activities are 

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
stockpiled topsoil • Re-vegetation			<ul> <li>51. Drill holes must be permanently capped as soon as is practicable to eliminate the risk of groundwater contamination.</li> <li>52. Wastes will be removed and disposed of at an appropriately</li> <li>53. licensed landfill (facility disposal licenses will be verified) and recyclables will be taken to a licensed recycling facility.</li> <li>54. Mechanical erosion control methods will be implemented if</li> </ul>		
			required. This may include the use of geotextiles. 55. Re-vegetation will be conducted by hand seeding exposed areas using indigenous grass species as determined by a suitably qualified ecologist.		
			56. Re-vegetation efforts will be monitored every 2 <sup>nd</sup> month for 6 months after initial seeding.		
			57. An effective vegetation cover of 45% must be achieved. Reseeding will be undertaken if this cover has not been achieved after 6 months.		

# 6.4.4 Impacts to be mitigated in their respective phases

Measures to rehabilitate the environment affected by the undertaking of any listed activity is presented in the following table.

## 6.5 Impact management outcomes

A description of impact management outcomes, identifying the standard of impact management required for the aspects contemplated in paragraph.

<b>Activity</b> (whether listed or not)	Potential impact	Aspects affected	Phase (in which impact is anticipated)	Mitigation type	Standard to be achieved
Phase 1: Data acquisit	on and desktop study				
Data collection and assessment (desktop only)	1. None identified.	N/A	Planning	• Control potential deviations from the approved PWP through effective implementation of the data acquisition and desktop study.	Remain within the ambits of the PWP and Environmental Authorization.
Phase 2: Drilling					
Site access	<ol> <li>Destruction and/or disturbance of on-site fauna and flora.</li> </ol>	Loss of fauna and flora	Construction phase	<ul> <li>Control through the clear delineation of the prospecting area.</li> </ul>	Remain within the ambits of the PWP and Environmental Authorization.
	3. Soil compaction resulting from repeated use of access roads to drill sites.	Loss of soil resources	Construction phase	<ul> <li>Control through clear delineation of prospecting area.</li> <li>Control through implementation of soil management programme in terms of the correct topsoil removal, stockpiling and rehabilitation practices as per EMP.</li> </ul>	Remain within the ambits of the PWP and Environmental Authorization. Retain topsoil integrity for the reuse in rehabilitation.

<b>Activity</b> (whether listed or not)	Potential impact	Aspects affected	<b>Phase</b> (in which impact is anticipated)	Mitigation type	Standard to be achieved
	<ol> <li>Vehicle traffic noise impact affecting cattle and/or wildlife.</li> </ol>	Loss of fauna	Construction phase	<ul> <li>Control through clear delineation of the prospecting area.</li> <li>Control through the limiting of the activities to the day time and the implementation of an open and transparent channel of communication.</li> </ul>	Remain within the ambits of the PWP and Environmental Authorization.
	5. Poor access control resulting in impacts on cattle movement, breeding and grazing practices.	Loss of fauna	Construction phase	<ul> <li>Control through clear delineation of the prospecting area.</li> <li>Control through the limiting of the activities to the day time and the implementation of an open and transparent channel of communication.</li> </ul>	Remain within the ambits of the PWP and Environmental Authorization.
	6. Potential destruction of heritage resources.	Loss of Cultural and/or Heritage Significance	Construction phase	• Control through the clear delineation of the prospecting area.	Comply with the requirements by SAHRA. No damage may result on heritage and cultural significant sites.
Site establishment activities including: • Vegetation clearing of drill pad area • Topsoil stripping and	<ol> <li>Destruction and/or disturbance of on-site fauna and flora.</li> </ol>	Loss of fauna and flora	Construction phase	<ul> <li>Control through the clear delineation of the prospecting area.</li> </ul>	Remain within the ambits of the PWP and Environmental Authorization.

Activity (whether listed or	Potential impact	Aspects affected	<b>Phase</b> (in which impact	Mitigation type	Standard to be achieved
not)			is anticipated)		
stockpiling • Drill pad compaction • Excavation and lining of drill water sump • Erection of temporary site office shaded area, patable ablution	8. Soil disturbance and topsoil stockpiling resulting in soil compaction and erosion.	Loss of soil resources	Construction	<ul> <li>Control through clear delineation of the prospecting area.</li> <li>Control through the implementation of a soil management programme in terms of the correct topsoil removal, stockpiling and rehabilitation practices as discussed in the EMP.</li> </ul>	Remain within the ambits of the PWP and Environmental Authorization. Retain topsoil integrity for the reuse in rehabilitation.
<ul> <li>potable ablution faculties and water storage tanks and core bay</li> <li>Erection of fuel storage tank</li> <li>Erection of safety barrier</li> <li>Waste generation and management</li> </ul>	<ol> <li>Dust emission resulting from site clearing, soil stripping and construction activities (including vehicle entrained dust).</li> </ol>	Dust emissions	Construction phase	<ul> <li>Control through implementation of dust suppression methods, when required. Dust suppression methods could include wet suppression.</li> </ul>	Remain within the designated area demarcated for prospecting activities. Remain within the National Environmental Management: Air Quality Act, 2004 Dust Regulation guidelines for rural communities.
	10. Visual Impact	Loss in	Construction	Control through clear delineation	Remain within the
	affecting visual	aesthetics	phase	of the prospecting area.	ambits of the PWP
	character and "sense			Control through implementation	and Environmental
	of place".			of environmental induction and	Authorization.

Activity (whether listed or not)	Potential impact	Aspects affected	<b>Phase</b> (in which impact is anticipated)	Mitigation type	Standard to be achieved
				toolbox talks, as well as the implementation of a fine system.	No removal of vegetation outside of demarcated areas.
	11. Influx of persons (job seekers) to site as a result of increased activity resulting in increased incidents of theft and opportunistic crime.	Increase in petty crimes	Construction phase	• Control through limiting of the activities to the day time and the implementation of an open and transparent channel of communication.	Maintain a 100% crime free area within the control of the prospecting activities and applicant.
	12. Potential destruction of heritage resources.	Loss of Cultural and/or Heritage Significance	Construction phase	<ul> <li>Control through clear delineation of the prospecting area.</li> <li>Control through implementation of environmental induction and toolbox talks.</li> </ul>	Comply with the requirements by SAHRA. No damage may result on heritage and cultural significant sites.
Exploration drilling and core sample collection and storage including: Scout and delineation drilling Drill maintenance and re-fuelling	13. Water and soil pollution resulting from disposal of drill fluids.	Loss of water resources, loss of soil resources	Operational phase	<ul> <li>Control through clear delineation of the prospecting area.</li> <li>Control through implementation of environmental induction and toolbox talks, as well as the implementation of a fine system.</li> <li>Control through implementation of a soil management</li> </ul>	Remain within the ambits of the PWP and Environmental Authorization. Retain topsoil integrity for the reuse in rehabilitation.

Activity (whether listed or not)	Potential impact	Aspects affected	Phase (in which impact is anticipated)	Mitigation type	Standard to be achieved
Core sample collection and storage Drill fluid collection, storage and evaporation Waste generation				<ul> <li>programme in terms of the correct topsoil removal, stockpiling and rehabilitation practices as per the EMP.</li> <li>Control through implementation</li> <li>of the NWA GN704 water management principles.</li> </ul>	
and management	14. Continued soil erosion from topsoil stockpile and soil compaction from drill pad platform.	Loss of soil resources	Operational phase	<ul> <li>Control through clear delineation of the prospecting area.</li> <li>Control through implementation of a soil management programme in terms of the correct topsoil removal, stockpiling and rehabilitation practices as per the EMP</li> </ul>	Remain within the ambits of the PWP and Environmental Authorization. Retain topsoil integrity for the reuse in rehabilitation.
	15. Potential water and soil pollution resulting from hydrocarbon spills and drill maintenance activities.	Loss of water resources, loss of soil resources	Operational phase	<ul> <li>Control through clear delineation of the prospecting area.</li> <li>Control through implementation</li> <li>of the NWA GN704 water management principles.</li> </ul>	Remain within the ambits of the PWP and Environmental Authorization. Retain topsoil integrity for the reuse in rehabilitation.
	<ul> <li>16. Dust emissions from</li> <li>drilling and general</li> <li>site activities</li> <li>(including vehicle</li> </ul>	Increase in dust emissions	Operational phase	• Control to the implementation of dust suppression methods, when this is required. Dust suppression methods could include wet	Remain within the designated area demarcated for prospecting

Activity (whether listed or not)	Potential impact	Aspects affected	<b>Phase</b> (in which impact is anticipated)	Mitigation type	Standard to be achieved
	entrained dust)			suppression.	activities. Remain within the NEMA: Air Quality Act, 2004 Dust Regulation guidelines for rural communities.
	17. Visual Impact affecting visual character and "sense of place"	Loss in aesthetic value	Operational phase	<ul> <li>Control through clear delineation of the prospecting area.</li> <li>Control through implementation of the conditions in the EMP.</li> </ul>	Remain within the ambits of the PWP and Environmental Authorization. No removal of vegetation outside of demarcated areas.
	18. Vehicle traffic and drill noise impact affecting wildlife game farm animals.	Loss of fauna	Operational phase	<ul> <li>Control through clear delineation of the prospecting area.</li> <li>Control through implementation of environmental induction and toolbox talks, as well as implementation of a fine system.</li> </ul>	Remain within the ambits of the PWP and Environmental Authorization.
	19. Poor access control resulting in impacts on cattle movement, breeding and grazing practices.	Loss of cattle	Operational phase	<ul> <li>Control through clear delineation of the prospecting area.</li> <li>Control through implementation of environmental induction and toolbox talks, as well as the implementation of a fine system.</li> </ul>	Remain within the ambits of the PWP and Environmental Authorization.

<b>Activity</b> (whether listed or not)	Potential impact	Aspects affected	Phase (in which impact is anticipated)	Mitigation type	Standard to be achieved
				• Control through limiting of the activities to the day time and the implementation of an open and transparent channel of communication.	
	20. Influx of persons (job seekers) to site as a result of increased activity resulting in increased incidents of theft and opportunistic crime.	Increase in petty crimes	Operational phase	• Control through limiting of the activities to the day time and the implementation of an open and transparent channel of communication.	Maintain a 100% crime free area within the control of the prospecting activities and applicant.
	21. Impact on the pans and associated ecosystems in the area.	Loss of sensitive environment, loss of fauna, loss of flora	Operational phase	<ul> <li>Control through clear delineation of the prospecting area.</li> <li>Control through implementation of environmental induction and toolbox talks, as well as the implementation of a fine system.</li> <li>Control through limiting of the activities to the day time and the implementation of an open and transparent channel of communication.</li> </ul>	Remain within the ambits of the PWP and Environmental Authorization.
Removal of	22. Destruction and / or	Loss of	Decommissioning	Control through clear delineation	Remain within the
temporary infrastructure	disturbance of on-site fauna.	sensitive environments,		of the prospecting area. • Control through implementation	ambits of the PWP and Environmental

<b>Activity</b> (whether listed or not)	Potential impact	Aspects affected	<b>Phase</b> (in which impact is anticipated)	Mitigation type	Standard to be achieved
including: Removal of temporary site office shaded area, potable ablution faculties, water storage tanks and core bay Borehole capping Drill pad rehabilitation including: Ripping of drill pad and access road Re-spreading of stockpiled topsoil Re-vegetation		loss of fauna, loss of flora		of environmental induction and toolbox talks, as well as the implementation of a fine system. • Control through limiting of the activities to the day time and the implementation of an open and transparent channel of communication.	Authorization.
	23. Dust emissions from decommissioning activities (including vehicle entrained dust).	Increase in dust emissions	Decommissioning	• Control through implementation of dust suppression methods, when this is required. Dust suppression methods could include wet suppression.	Remain within the designated area demarcated for prospecting activities. Remain within the NEMA Air Quality Act, 2004 Dust Regulation

<b>Activity</b> (whether listed or not)	Potential impact	Aspects affected	Phase (in which impact is anticipated)	Mitigation type	Standard to be achieved
					guidelines for rural communities.
	24. Poor access control resulting in impacts on cattle movement, breeding and grazing practices.	Loss of cattle	Decommissioning	<ul> <li>Control through clear delineation of the prospecting area.</li> <li>Control through implementation of environmental induction and toolbox talks, as well as the implementation of a fine system.</li> <li>Control through limiting of the activities to the day time and the implementation of an open and transparent channel of communication.</li> </ul>	Remain within the ambits of the PWP and Environmental Authorization.
	25. Potential water and soil pollution resulting from hydrocarbon spills.	Loss of water resources, loss of soil resources	Decommissioning	<ul> <li>Control through clear delineation of the prospecting area.</li> <li>Control through implementation of environmental induction and toolbox talks, as well as the implementation of a fine system.</li> <li>Control through implementation</li> <li>of the NWA GN704 water management principles.</li> </ul>	Remain within the ambits of the PWP and Environmental Authorization.
	26. Soil erosion resulting from the re- spreading of topsoil before vegetation is	Loss of soil resources	Decommissioning	<ul> <li>Control through clear delineation of the prospecting area.</li> <li>Control through implementation of environmental induction and</li> </ul>	Remain within the ambits of the PWP and Environmental Authorization.

Activity (whether listed or not)	Potential impact	Aspects affected	Phase (in which impact is anticipated)	Mitigation type	Standard to be achieved
	reestablished.			<ul> <li>toolbox talks, as well as the implementation of a fine system.</li> <li>Control through implementation of a soil management programme in terms of the correct topsoil removal, stockpiling and rehabilitation practices as per the EMP.</li> </ul>	

## 6.6 Impact management actions

A description of impact management actions, identifying the manner in which the impact management objectives and outcomes contemplated in paragraphs (c) and (d) will be achieved.

<b>ACTIVITY</b> (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR	COMPLIANCE WITH STANDARDS
Phase1: Data acquisition and	desktop study			
Data collection and assessment (desktop only)	None identified.	1. No mitigation proposed	N/A	Remain within the ambits of the PWP and Environmental Authorization
Phase1: Drilling			'	
	Site establishment	<ol> <li>Site activities will be conducted during daytime hours 07h00 – 17h30 to avoid night time noise disturbances and night time collisions with fauna.</li> </ol>		

<b>ACTIVITY</b> (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR	COMPLIANCE WITH STANDARDS
		<ol> <li>Vehicle speed will be reduced, particularly in highly vegetated areas is one way to avoid deaths by vehicle impacts.</li> </ol>		
	Soil compaction	<ul> <li>4. Where track clearing is necessary, raised blade clearing be conducted to minimise disturbance and aid rehabilitation efforts.</li> <li>5. As part of rehabilitation, all compacted roads and drill pads will be ripped and re-vegetated.</li> </ul>	Concurrently with the completion of prospecting activities	<ul> <li>Remain within the ambits of the PWP and Environmental Authorization.</li> <li>Retain topsoil integrity for the reuse in rehabilitation.</li> </ul>
	Vehicle traffic noise impact affecting cattle and/or wildlife.	<ol> <li>Site activities will be conducted during daytime hours 07h00-17h30 to avoid night time noise disturbances.</li> </ol>	Concurrently with the completion of prospecting activities	Remain within the ambits of the PWP and Environmental Authorization.
	Poor access control resulting in impacts on cattle movement, breeding and grazing practices.	7. Access control procedures must be agreed on with farm owners and staff trained.	Concurrently with the completion of prospecting activities	Remain within the ambits of the PWP and Environmental Authorization.
	Potential destruction of heritage	8. Prior to the establishment of new access roads, a heritage impact assessment must be undertaken	Concurrently with the completion of prospecting	<ul><li>Comply with the requirements by SAHRA.</li><li>No damage may result on</li></ul>

<b>ACTIVITY</b> (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR	COMPLIANCE WITH STANDARDS
	resources.	and mitigation and / or management measure for the protection of such resources must be implemented	activities	heritage and cultural significant sites.
Site establishment activities including: • Vegetation clearing of drill pad area • Topsoil stripping and stockpiling • Drill pad compaction • Excavation and lining of drill water sump • Erection of temporary site office shaded area, potable ablution faculties and water storage tanks and core bay • Erection of fuel storage	Destruction and / or disturbance of on-site fauna and flora.	<ul> <li>9. The removal of vegetation within the drill pad area will be minimised. If practicable, raised blade clearing be conducted for the entire drill pad to minimise disturbance and aid rehabilitation efforts. The design of the drill fluid sump must incorporate effective fauna egress to avoid entrapment.</li> <li>10.A fire emergency procedure will be developed to contain and minimise the destruction of flora and faunal habitat which may result from fire.</li> </ul>	Concurrently with the completion of prospecting activities	Remain within the ambits of the PWP and Environmental Authorization.
<ul> <li>Erection of fuel storage tank</li> <li>Erection of safety barrier</li> <li>Waste generation and management</li> </ul>	Soil disturbance and topsoil stockpiling resulting in soil compaction and erosion.	<ul> <li>11. In the event that the drill pad is cleared of all vegetation, lower blade clearing will be undertaken prior to the stripping of topsoil.</li> <li>12. Topsoil including the remaining vegetation, will be stripped and stockpiled up-slope of the pad. The stockpile will be shaped to divert</li> </ul>	Concurrently with the completion of prospecting activities	<ul> <li>Remain within the ambits of the PWP and Environmental Authorization.</li> <li>Retain topsoil integrity for the reuse in rehabilitation.</li> </ul>

ACTIVITY	POTENTIAL	MITIGATION TYPE	TIME PERIOD FOR	COMPLIANCE WITH STANDARDS
(whether listed or not listed)	IMPACT		IMPLEMENTATION	
		storm water around the drill pad to		
		minimise soil erosion of the pad.		
		13.Where practicable topsoil will be		
		stripped to a depth of 10cm.		
		14.Vegetation removed through lower		
		blade clearing will be mixed with		
		topsoil to increase organic content		
		and to preserve the seed bank in		
		order to aid rehabilitation efforts.		
		15.Topsoil will be stockpiles to a		
		maximum height of 1.5m with a		
		side slope of not more than 1:3.		
		16.Mechanical erosion control		
		methods will be implemented if		
		required. This may include the use		
		of geotextiles to stabilise slopes.		
	Dust emission	17.Based on visual observation, wet	Concurrently with	Remain within the designated
	resulting from site	dust suppression will be undertaken	the completion	area demarcated for
	clearing, soil	to manage dust emissions from	of prospecting	prospecting activities.
	stripping and	vehicle movement and other	activities	Remain within the NEMA Air
	construction	construction		Quality Act, 2004 Dust Regulation
	activities	18.activities as and when needed.		guidelines for rural communities.
	(including	19.Depending on the need and		
	vehicle	quantity of water used for wet		
	entrained dust).	suppression, a suitable, low		
		environmental impact chemical		
		suppression alternative must be		

<b>ACTIVITY</b> (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR	COMPLIANCE WITH STANDARDS
		considered in order to conserve water resources.		
	Visual Impact affecting visual character and "sense of place".	20.The shaded office area, portable ablution facilities, vertical water tanks and any other infrastructure should be acquired with a consideration for colour. Natural earth, green and mat black options which will blend in with the surrounding area must be favoured.	Concurrently with the completion of prospecting activities	<ul> <li>Remain within the ambits of the PWP and Environmental Authorization.</li> <li>No removal of vegetation outside of demarcated areas.</li> </ul>
	Influx of persons (job seekers) to site as a result of increased activity resulting in increased incidents of theft and opportunistic crime.	<ul> <li>21.Casual labour will not be recruited at the site to eliminate the incentive for persons travelling to site seeking employment.</li> <li>22.The landowner (all private and state land owners) will be notified of unauthorised persons encountered on site.</li> <li>23.If deemed necessary, the South African Police Service will be informed of unauthorised persons encountered on site.</li> </ul>		Maintain a 100% crime free area within the control of the prospecting activities and applicant.
	Potential destruction of heritage resources.	24.Prior to the site establishment, a heritage impact assessment must be undertaken and mitigation and / or management measure for the	Concurrently with the completion of prospecting activities	<ul> <li>Comply with the requirements by SAHRA.</li> <li>No damage may result on heritage and cultural significant</li> </ul>

<b>ACTIVITY</b> (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR	COMPLIANCE WITH STANDARDS
		protection of such resources must be implemented		sites.
<ul> <li>Exploration drilling and core sample collection and storage including:</li> <li>Scout and delineation drilling</li> <li>Drill maintenance and re- fuelling</li> <li>Core sample collection and storage</li> <li>Drill fluid collection, storage and evaporation</li> <li>Waste generation and management</li> </ul>	Water and soil pollution resulting from disposal of drill fluids.	<ul> <li>25.A sump will be constructed with a sufficient capacity to receive drill fluids and allow for evaporation</li> <li>26.The sump will be constructed to divert storm water away and / or around the sump to avoid clean stormwater inflow.</li> </ul>	Concurrently with the completion of prospecting activities	<ul> <li>Remain within the ambits of the PWP and Environmental Authorization.</li> <li>Retain topsoil integrity for the reuse in rehabilitation.</li> </ul>
	Continued soil erosion from topsoil stockpile and soil compaction from drill pad platform.	<ul> <li>27. In the event that raise blade clearing is not undertaken, and the drill pad is cleared, topsoil will be stockpiles to a maximum height of 1.5m with a side slope of not more than 1:3.</li> <li>28. The topsoil stockpile will be shaped to divert storm water around the drill pad to minimise soil erosion of the pad.</li> <li>29. Management efforts through the use of mechanical erosion control</li> </ul>	Concurrently with the completion of prospecting activities	<ul> <li>Remain within the ambits of the PWP and Environmental Authorization.</li> <li>Retain topsoil integrity for the reuse in rehabilitation.</li> </ul>

<b>ACTIVITY</b> (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR	COMPLIANCE WITH STANDARDS
		methods will be implemented if required. This may include the use of geotextiles.		
	Potential water and soil pollution resulting from hydrocarbon spills and drill maintenance activities.	<ul> <li>30. Fuel storage tanks will have a secondary containment structure with a capacity of 110% of the total tank capacity.</li> <li>31. Oils and lubricant will be stored in secondary containment structures.</li> <li>32. Where practicable, vehicle maintenance will be undertaken off-site.</li> <li>33. If vehicle maintenance is done onsite (like breakdown maintenance), drip trays and/or UPVC sheets will be used to prevent spills and leaks onto the soil.</li> <li>34. Unused machinery must be completely drained of oil and other hydrocarbons to ensure that leaks do not develop.</li> <li>35. Regular inspections of all vehicles must be carried out to ensure that all leaks are identified early and rectified.</li> <li>36. A sufficient number of waste receptacles will be provided.</li> </ul>	Concurrently with the completion of prospecting activities	<ul> <li>Remain within the ambits of the PWP and Environmental Authorization.</li> <li>Retain topsoil integrity for the reuse in rehabilitation.</li> </ul>

<b>ACTIVITY</b> (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR	COMPLIANCE WITH STANDARDS
		<ul> <li>37. Waste separation will be undertaken at source and separate receptacles will be provided (general waste, recyclables and hazardous waste).</li> <li>38. Receptacles will be closed (i.e. fitted with a lockable lid) to eliminate the possibility of access by animals overnight.</li> <li>39. Wastes will be removed and disposed of at an appropriately licensed landfill (facility disposal licenses will be verified) and recyclables will be taken to a licensed recycling facility.</li> </ul>		
	Dust emissions from drilling and general site activities (including vehicle entrained dust)	<ul> <li>40.Based on visual observation wet dust suppression will be undertaken when required to manage dust emissions from vehicle movement.</li> <li>41.Depending on the need and quantity of water used for wet suppression, chemical suppression alternatives must be considered in order to conserve water resources.</li> </ul>	Concurrently with the completion of prospecting activities	<ul> <li>Remain within the designated area demarcated for prospecting activities.</li> <li>Remain within the NEMA Air Quality Act, 2004 Dust Regulation guidelines for rural communities.</li> </ul>
	Visual Impact affecting visual character and	42.Visual impact of structures will be mitigated through measures as included in Item 35.	Concurrently with the completion of prospecting	<ul> <li>Remain within the ambits of the PWP and Environmental Authorization.</li> </ul>

<b>ACTIVITY</b> (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR	COMPLIANCE WITH STANDARDS
	"sense of place"	43. Visual dust dispersion will be mitigated through measures as included in Item 33.	activities	<ul> <li>No removal of vegetation outside of demarcated areas.</li> </ul>
	Vehicle traffic and drill noise impact affecting wildlife game farm animals.	44.Site activities will be conducted during daytime hours 07h00-17h00 to avoid night time noise disturbances.	Concurrently with the completion of prospecting activities	Remain within the ambits of the PWP and Environmental Authorization.
	Poor access control resulting in impacts on cattle movement, breeding and grazing practices	45.Access control procedures must be agreed on with farm owners.	Concurrently with the completion of prospecting activities	Remain within the ambits of the PWP and Environmental Authorization.
	Influx of persons (job seekers) to site as a result of increased activity resulting in increased incidents of theft and opportunistic crime.	<ul> <li>46.Casual labour will not be recruited at the site to eliminate the incentive for persons travelling to site seeking employment.</li> <li>47.The landowner (Department of Rural Development and Land Reform) will be notified of unauthorised persons encountered on site.</li> <li>48.If deemed necessary, the South African Police Service will be informed of unauthorised persons</li> </ul>	Concurrently with the completion of prospecting activities	Maintain a 100% crime free area within the control of the prospecting activities and applicant.

ACTIVITY	POTENTIAL	MITIGATION TYPE	TIME PERIOD FOR	COMPLIANCE WITH STANDARDS
(whether listed or not listed)	IMPACT		IMPLEMENTATION	
		encountered on site.		
Removal of temporary infrastructure including: • Removal of temporary site office shaded area, potable ablution faculties, water storage tanks and	Impact on the pans and associated ecosystems in the area. Destruction and / or disturbance of on-site fauna.	<ul> <li>49.The prospecting areas must be clearly demarcated.</li> <li>50.No prospecting activities may be undertaken within the pan areas.</li> <li>51.All site plans must indicate the presence of pans.</li> <li>52.Drill holes must be temporarily plugged immediately after drilling is completed and remain plugged until they are permanently plugged below ground to eliminate the risk posed to fauna by open drill holes.</li> </ul>	Concurrently with the completion of prospecting activities Concurrently with the completion of prospecting activities	Remain within the ambits of the PWP and Environmental Authorization. Remain within the ambits of the PWP and Environmental Authorization.
<ul> <li>core bay</li> <li>Borehole capping</li> <li>Drill pad rehabilitation including:</li> <li>Ripping of drill pad and access road</li> <li>Re-spreading of stockpiled topsoil</li> <li>Re-vegetation</li> </ul>		53.Drill holes must be permanently capped as soon as is practicable		
	Dust emissions from decommissioning activities (including	<ul> <li>54.Based on visual observation wet dust suppression will be undertaken to manage dust emissions from vehicle movement.</li> <li>55.Depending on the need and</li> </ul>	Concurrently with the completion of prospecting activities	<ul> <li>Remain within the designated area demarcated for prospecting activities.</li> <li>Remain within the NEMA Air Quality Act, 2004 Dust Regulation</li> </ul>

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<b>ACTIVITY</b> (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR	COMPLIANCE WITH STANDARDS
	vehicle entrained dust).	quantity of water used for wet suppression, chemical suppression alternatives must be considered in order to conserve water resources.		guidelines for rural communities.
	Poor access control resulting in impacts on cattle movement, breeding and grazing practices.	56.Access control procedures must be agreed on with farm owners and all staff trained.	Concurrently with the completion of prospecting activities	Remain within the ambits of the PWP and Environmental Authorization.
	Potential water and soil pollution resulting from hydrocarbon spills.	<ul> <li>57.All fuel storage tanks will be emptied prior to removal.</li> <li>58.Drill holes must be permanently capped as soon as is practicable to eliminate the risk of groundwater contamination.</li> <li>59.Wastes will be removed and disposed of at an appropriately licensed landfill (facility disposal licenses will be verified) and recyclables will be taken to a licensed recycling facility.</li> </ul>	Concurrently with the completion of prospecting activities	Remain within the ambits of the PWP and Environmental Authorization.
	Soil erosion resulting from the re-spreading of	60.Mechanical erosion control methods will be implemented if required. This may include the use	Concurrently with the completion of prospecting	Remain within the ambits of the PWP and Environmental Authorization.

ACTIVITY	POTENTIAL	MITIGATION TYPE	TIME PERIOD FOR	COMPLIANCE WITH STANDARDS
(whether listed or not listed)	IMPACT		IMPLEMENTATION	
	topsoil before	of geotextiles.	activities	
	vegetation is	61.Re-vegetation will be conducted		
	reestablished.	through hand seeding exposed		
		areas using indigenous grass		
		species as determined by a		
		suitably qualified ecologist.		
		62.Re-vegetation efforts will be		
		monitored every 2 <sup>nd</sup> month for 6		
		months after initial seeding.		
		63.An effective vegetation cover of		
		45% must be achieved. Re-seeding		
		will be undertaken if this cover has		
		not been achieved after 6 months.		

## 7 Determination of the amount of financial provision

Describe the closure objectives and the extent to which they have been aligned to the baseline environment described under the Regulation

Each phase of the prospecting activities depends on the success of the previous. Depending on the outcome of the Phase 1 assessment, a drilling programme will be initiated. The location and extent of the drill sites cannot be determined at this stage.

The rehabilitation plan is developed on the basis that the rehabilitated areas are safe, stable, non-polluting and able to support a self-sustaining ecosystem similar to surrounding natural environment. To ensure that the rehabilitation plan is aligned with the closure objective, a highlevel risk assessment of the prospecting components has been undertaken to establish the potential risks associated therewith.

The closure objectives are to:

- Eliminate any safety risk associated with drill holes and sumps though adequate drill hole capping and backfilling
- Remove and/or rehabilitate all pollution and pollution sources such as waste materials and spills
- To establish rehabilitated area which is not subject to soil erosion which may result in the loss of soil, degradation of the environment and cause pollution of surface water resources
- Restore disturbed area and re-vegetate these areas with grass species naturally occurring in the area to restore the ecological function of such areas as far as is practicable

## 7.1 Consultation with landowners

Confirm specifically that the environmental objectives in relation to closure have been consulted with landowners and interested and affected parties

This Basic Assessment Report and Environmental Management Plan will be made available to each registered stakeholder for review and comment. All comments will be captured in the issues and response section and will be included into the final report.

## 7.2 Rehabilitation plan

Provide a rehabilitation plan that describes and shows the scale and aerial extent of the main mining activities, including the anticipated mining area at the time of closure

Each phase of the prospecting activities depends on the success of the previous. Depending on the outcome of the Phase 1 assessment, an airborne/ground geophysics survey and/or loam sampling programme will be initiated. Targets that have been prioritised through detailed anomaly-specific loam sampling will be tested by initial drilling. The location and extent of soil sampling and drill sites cannot be determined at this stage. Prospect activity mapping could thus not be undertaken.

Due to the nature of the activities, the impacts will be limited and of short duration. The management plan is provided in such a manner as to ensure concurrent rehabilitation. The areas for drilling purposes will be the main area experiencing impacts. In this event the activities will be temporary in nature, and a detailed management plan has been provided to address potential impacts associated with these activities. The only rehabilitation that will specifically be required is borehole capping and revegetation.

## 7.2.1 Borehole capping

Drill holes must be permanently capped as soon as is practicable.

## 7.2.2 Re-vegetation

It is recommended that a standard commercial fertilizer high in the standard elements is added to the soil before re-vegetation, at a rate of 10-20kg/ha (application rate to be confirmed based on input from a suitably qualified specialist). The fertilizer should be added to the soil in a slow release granular form. A suitably qualified ecologist will be appointed to determine the appropriate veld grass mix for hand seeding. Re-vegetation efforts will be monitored every second month for a period of 6 months after initial seeding. An effective vegetation cover of 45% must be achieved. Re-seeding will be undertaken if this cover has not been achieved after 6 months.

## 7.3 Compatibility of rehabilitation plan with closure objectives

Explain why it can be confirmed that the rehabilitation plan is compatible with the closure objectives.

Due to the nature of the activities, the impacts will be limited and of short duration. The management plan is provided in such a manner as to ensure concurrent rehabilitation. The areas for drilling purposes will be the main area experiencing impacts. In this event the activities will be temporary in nature, and a detailed management plan has been provided to address potential impacts associated with these activities.

## 7.4 Quantum of financial provision required

Calculate and state the quantum of the financial provision required to manage and rehabilitate the environment in accordance with the applicable guideline.

The financial provision for the environmental rehabilitation and closure of any mine/prospecting and its associated operations forms an integral part of the MPRDA. Sections 41(1), 41(2), 41(3) and 45 of the MPRDA deal with the financial provision for rehabilitation and closure. During 2012 the DMR made updated rates available for the calculation of the closure costs, where contractor's costs are not available these are used in assessments.

The Guideline Document for the Evaluation of Financial Provision made by the Mining Industry was developed by the DMR in January 2019, in order to empower the personnel at regional DMR offices to review the quantum determination for the rehabilitation and closure of mining sites. With the determination of the quantum for closure it must be assumed that the infrastructure has no salvage value (clean closure). The closure cost estimate (clean closure) was determined in accordance with the DMR guidelines and is based, where possible, on actual costs provided by a third-party contractor. The closure costs are as follows:

Sub-Total 1:	R 56.72655 (excluding VAT)
Sub-Total 2:	R 69.21 (excluding VAT)
Sub-Total 3 (clean closure cost):	R 37230 (including VAT)

## 7.5 Financial provision as determined

Confirm that the financial provision will be provided as determined.

The prospecting activities will require R 37230 (including VAT) for environmental rehabilitation. Financing will be sourced from the capital expenditure as planned by the company; this capital will come from the treasury of the company. As part of the PWP, the applicant has provided the annual financial statement for 2018/2019. The company annual financial statement for 2018/2019 was also submitted to the DMR for confirmation that the company has funding available to implement the proposed project.

It should be noted that the current expenditure provided for in the PWP does not included the calculated Financial Provision as included in this Basic Assessment, as these values were estimated at the time of the submission of the PWP. The provision for closure should be included in the PWP prior the decision by the DMR should this decision be positive.

## 7.6 Compliance monitoring mechanisms

Mechanisms for monitoring compliance with and performance assessment against the environmental management programme and reporting thereon, including

- Monitoring of Impact Management Actions
- Monitoring and reporting frequency
- Responsible persons
- Time period for implementing impact management actions
- Mechanism for monitoring compliance

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES For the execution of the monitoring programmes	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
Phase1: Data acquisition and desktop study	None identified.	None	N/A	N/A
Phase 2: Target generation and ground truthing	Noise impacts resulting from site fly- overs affecting cattle and game farm animals	Adjacent landowners will be informed of the planned dates of the Airborne geophysics survey and a grievance mechanism will be made available.	Prospecting Manager	<ul> <li>Once-off upfront consultation with affected parties.</li> <li>As required as grievances are received.</li> <li>Consultation to be signedoff by Environmental Management.</li> <li>All grievances to be signed-off by Environmental Management.</li> <li>All corrective action and close out of grievances to be signed-off by Environmental Management.</li> <li>Proof of consultation to be submitted to the Department of</li> </ul>

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES For the execution of the monitoring programmes	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
				<ul> <li>Mineral Resources prior to airborne survey is conducted.</li> <li>Record of grievances, corrective action taken and close out to be submitted to the Department of Mineral resources at the end of the project phase.</li> </ul>
Phase 3: Ground geophysics and soil sampling	All site activities to be undertaken must be communicated with directly affected landowners.	As soon as the extent of site activities are known. These must be communicated with directly affected landowners. The following procedures must developed in conjunction with these landowners: Emergency Preparedness and Response Plan; and Access control procedures and requirements.	Prospecting manager	<ul> <li>Confirmation of the extent of site activities to be submitted to the Department of Mineral Resources prior to such activities been undertaken.</li> <li>Proof of consultation with directly affected landowners and the outcome of such consultation to be submitted to the Department of Mineral Resources.</li> <li>Continuous monitoring of compliance with the access control procedure will be undertaken.</li> </ul>
Phase III: Exploratory Drilling	Visual inspection of soil erosion and / or compaction	All exposed areas, access roads, the drill pad and soil stockpiles must be monitored for erosion on a regular basis and specifically after rain events.	Prospecting Manager Contractor	<ul> <li>Weekly and after rain events</li> <li>Monthly monitoring reports to be signed-off by the Environmental Manager.</li> <li>Corrective action to be confirmed</li> </ul>

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES For the execution of the monitoring programmes	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
				<ul> <li>and signed-off by the</li> <li>Environmental Manager.</li> <li>Consolidated monthly monitoring reports (including the corrective action taken) to be submitted to the Department of Mineral Resources.</li> </ul>
	Dust generated will be assessed through visual observation	If dust outfall is excessive and regarded to affect any sensitive receptors a monitoring programme must be initiated based on the input of a suitably qualified air quality specialist.	Prospecting Manager Contractor	<ul> <li>On-going</li> <li>Monthly monitoring reports to be signed-off by the Environmental Manager.</li> <li>Corrective action to be confirmed and signed-off by the Environmental Manager.</li> <li>Consolidated monthly monitoring reports (including the corrective action taken) to be submitted to the Department of Mineral Resources.</li> </ul>
	Visual inspection of biodiversity impacts and the occurrence of invader species	Visual inspection of clearing activities and other possible secondary impact on biodiversity will be undertaken. The introduction of alien invasive vegetation species will be	Prospecting Manager Contractor	<ul> <li>Once-off during clearing activities</li> <li>Weekly inspection of secondary impacts</li> <li>Monthly monitoring reports to be signed-off by the Environmental Manager.</li> </ul>

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES For the execution of the monitoring programmes	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		determined.		<ul> <li>Corrective action to be confirmed and signed-off by the Environmental Manager.</li> <li>Consolidated monthly monitoring reports (including the corrective action taken) to be submitted to the Department of Mineral Resources.</li> </ul>
	Visual inspection of pollution incidents, the integrity of secondary containment structures and waste management	All secondary containment structure will be inspected on a regular basis to confirm the integrity thereof and to identify potential leaks. All spill incidents will be identified, and corrective action taken in accordance with an established spill response procedure. Waste management practices will be monitored to prevent contamination and littering.	Prospecting Manager Contractor	<ul> <li>Monthly monitoring reports to be signed-off by the Environmental Manager.</li> <li>Corrective action to be confirmed and signed-off by the Environmental Manager.</li> <li>Consolidated monthly monitoring reports (including the corrective action taken) to be submitted to the Department of Mineral Resources.</li> <li>Incident reporting will be undertaken as required in terms of the relevant legislation including, but not limited to, the Mineral and Petroleum Resources Development Act 28 of 2002; and National Water</li> </ul>

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES For the execution of the monitoring programmes	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
				Act 36 of 1998.
Post-closure monitoring	• Follow up inspections and monitoring of rehabilitation	<ul> <li>Inspection of all rehabilitated areas to assess whether any soil erosion is occurring and implement corrective action where required.</li> <li>Confirm that the set target of 45% cover for all re-vegetated areas have been achieved after a period of 6 months and re-seed where required</li> <li>Identify any areas of subsidence around drill holes and undertake additional backfilling if required.</li> </ul>	Prospecting Manager	<ul> <li>Monthly for a period of 6 months after rehabilitation activities are concluded.</li> <li>Monthly monitoring reports to be signed-off by the Environmental Manager.</li> <li>Corrective action to be confirmed and signed-off by the Environmental Manager.</li> <li>Consolidated monthly monitoring reports (including the corrective action taken) to be submitted to the Department of Mineral Resources.</li> <li>Final impact and risk assessment report for site closure to be submitted to the DMR for approval.</li> </ul>

## 7.7 Frequency of performance assessment submission

Indicate the frequency of the submission of the performance assessment/ environmental audit report

Annual performance assessments must be undertaken on the EMP. These reports must include the financial provision assessment. The reports should be submitted to the DMR.

## 7.8 Environmental Awareness Plan

Manner in which the applicant intends to inform his or her employees of any environmental risk which may result from their work.

An Environmental Awareness and Risk Assessment Schedule have been developed and is outline in Table 17. The purpose of this schedule is to ensure that employees are not only trained but that the principles are continuously reenforced.

Frequency	Time allocation	Objective
Induction (all staff and workers)	1-hour training on environmental awareness training as part of site induction	<ul> <li>Develop an understanding of what is meant by the natural environmental and social environment and establish a common language as it relates to environmental, health, safety and community aspects.</li> <li>Establish a basic knowledge of the environmental legal framework and consequences of non-compliance.</li> <li>Clarify the content and required actions for the implementation of the Environmental Management Plan.</li> <li>Confirm the spatial extent of areas regarded as sensitive and clarify restrictions.</li> <li>Provide a detailed understanding of the definition, the method for identification and required response to emergency incidents.</li> </ul>
Monthly Awareness Talks (all staff and workers)	30-minute awareness talks	Based on actual identified risks and incidents (if occurred) reinforce legal requirements, appropriate responses and measures for the adaptation of mitigation and/or management practices.
Risk Assessments (supervisor and workers involved in task)	Daily task-based risk assessment	Establish an understanding of the risks associated with a specific task and the required mitigation and management measures daily as part of daily tool box talks.

#### Table 23: Environmental training and awareness schedule

## 8 Manner in which risks will be dealt with in order to avoid pollution or the degradation of the environment

Task / Issue Based Risk Assessments must be undertaken with all worker involved in the specific task in order to establish an understanding of the risks associated with a specific task and the required mitigation and management measures.

## 8.1 Environmental Awareness Training Content – Induction Training

The following environmental awareness training will be provided to all staff and workers who will be involved in prospecting activities.

- Description of the approved prospecting activities and content of the prospecting right
- Overview of the applicable legislation and regulations as it relates to environmental, health, safety and community including (but not limited to):
  - General Environmental Legal Principles and Requirements
  - Air Quality Management
  - Water and Wastewater Management
  - Hazardous Substances
  - Non-Mining-Related Waste Management
  - The Appropriate Remediation Strategies & Deteriorated Water Resources
  - o Biodiversity
  - Weeds and Invader Plants
  - Rehabilitation
  - o Contractors and Tenants
  - Energy & Conservation
  - Heritage Resources
  - o General Health and Safety Matters
  - Basic Conditions of Employment
  - Compensation for Occupational Injuries and Diseases
  - o General Mine Health and Safety Matters
  - Smoking in the Workplace
  - Noise & Hearing Conservation
  - Handling, Storage and use of Hazardous Substances
  - Weapons and Firearms
- Content and implementation of the approved Environmental Management Plan
  - o Allocated responsibilities and functions
  - Management and mitigation measures
  - o Identification of risks and requirements adaptation

- Sensitive environments and features
  - o Description of environmentally sensitive areas and features
  - Prohibitions as it relates to activities in or in proximity to such areas
- Emergency situations and remediation
  - Methodology for the identify areas where accidents and emergency situations may occur, communities and individuals that may be impacted
  - An overview of the response procedures,
  - Equipment and resources
  - Designate of responsibilities
  - o Communication, including communication with potentially Affected Communities
  - Training schedule to ensure effective response.

## 8.2 Development of procedures and checklists

The following procedures will be developed, and all staff and workers will be adequately trained on the content and implementation thereof.

## 8.2.1 Emergency preparedness and response

The procedure will be developed to specifically include risk identification, preparedness, response measures and reporting. The procedure will specifically include spill and fire risk, preparedness and response measures. The appropriate emergency control centres (fire department, hospitals) will be identified and the contact numbers obtained and made available on site. The procedure must be developed in consultation with all potentially affected landowners. In the event that risks are identified which may affected adjacent landowners (or other persons), the procedure will include the appropriate communication strategy to inform such persons and provide response measures to minimise the impact.

## 8.2.2 Incident reporting procedure

Incident reporting will be undertaken in accordance with an established incident reporting procedure to (including but not limited to):

- Provide details of the responsible person including any person who: (i) is responsible for the incident; (ii) owns any hazardous substance involved in the incident; or (iii) was in control when the incident occurred
- Provide details of the incident (time, date, location)
- The details of the cause of the incident
- Identify the aspects of the environment impacted

- The details corrective action taken
- The identification of any potential residual or secondary risks that must be monitored and corrected or managed

## 8.2.3 Environmental and social audit checklist

An environmental audit checklist will be established to include the environmental and social mitigation and management measures as developed and approved as part of the Environmental Management Plan. Non-conformances will be identified, and corrective action taken where required.

## 8.3 Specific information required by the Competent Authority

Among others, confirm that the financial provision will be reviewed annually.

Buffer map was requested by DWS.

## 9 UNDERTAKING

The EAP herewith confirms:

- The correctness of the information provided in the reports
- The inclusion of comments and inputs from stakeholders and I&APs
- The inclusion of inputs and recommendations from the specialist reports where relevant
- That the information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected. parties are correctly reflected herein

Signature of the Environmental Assessment Practitioner (Singo Consulting (Pty) Ltd)

Name of company

Singo Consulting (Pty) Ltd

Date 02-12-2019

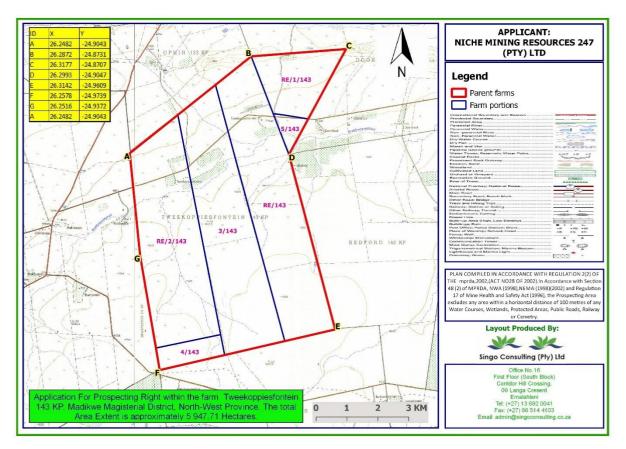
## **10** Undertaking by the client

Herewith I, the person whose name and identity number is stated below, confirm that I am the person authorised to act as representative of the applicant in terms of the resolution submitted with the application, and confirm that the above report comprises EIA and EMP compiled in accordance with the guideline on the Departments official website and the directive in terms of sections 29 and 39 (5) in that regard, and the applicant undertakes to execute the Environmental management plan as proposed.

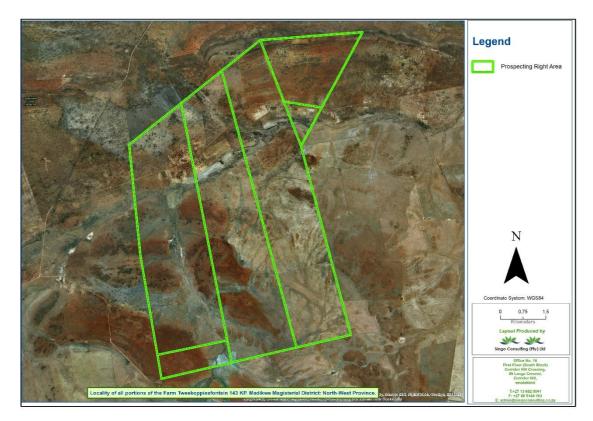
Full names and surname	Simelane Mlozi,
Identity number	8707275407080
Designation	Managing Director
Signature	
Date	02/12/2019

-END-

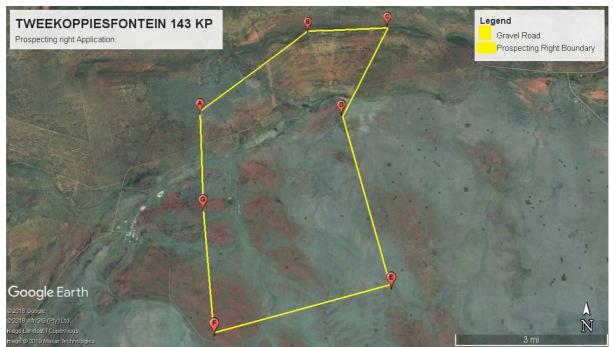
#### **Appendix A: Project Maps**



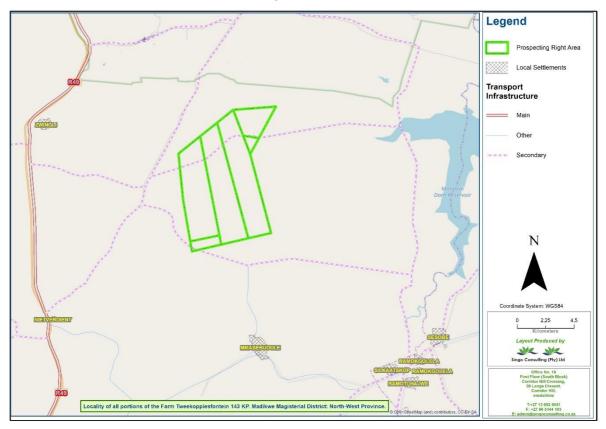
**Regulation Map** 



Aerial Photo Map



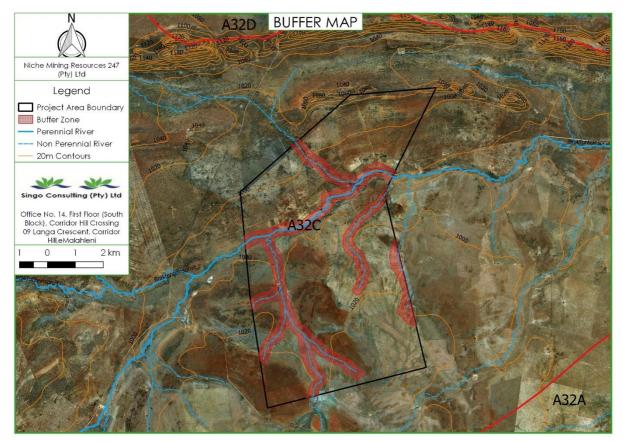
Google Earth Map



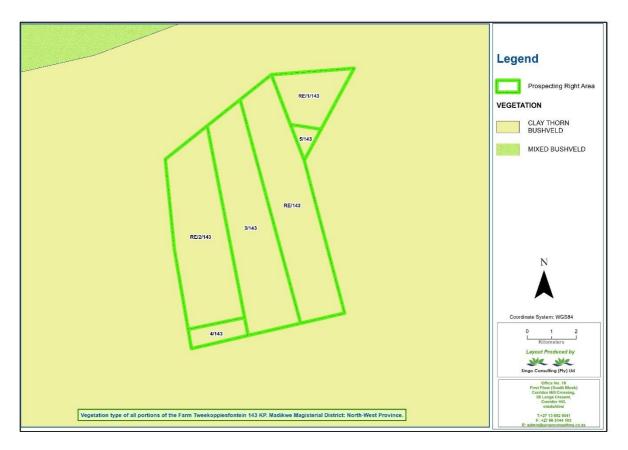
Locality Map



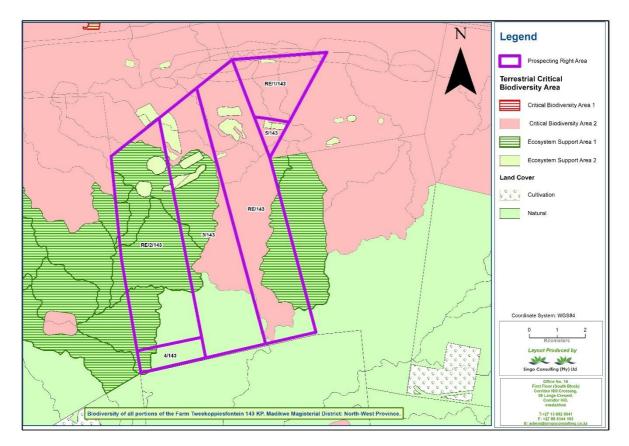
#### Surface Water Map



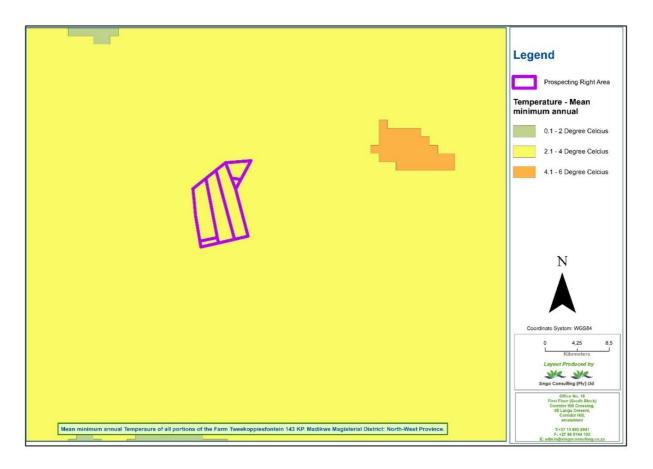
**Buffer Map** 

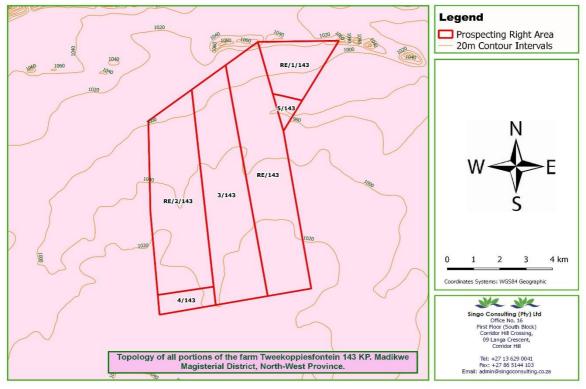


**Vegetation Map** 

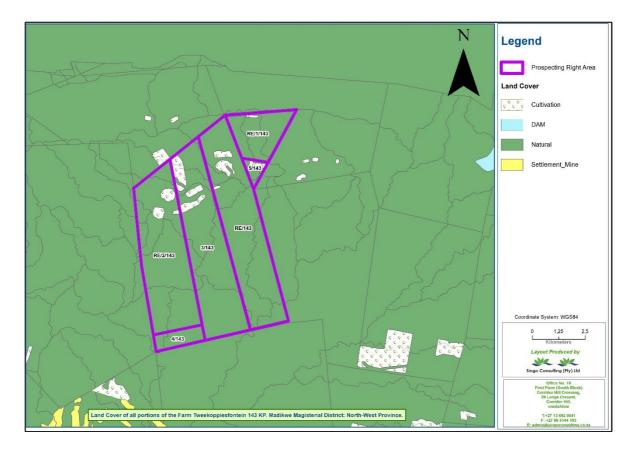


**Critical Biodiversity Map** 

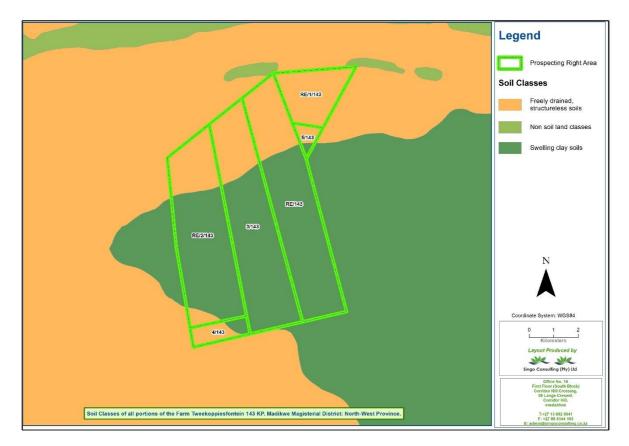




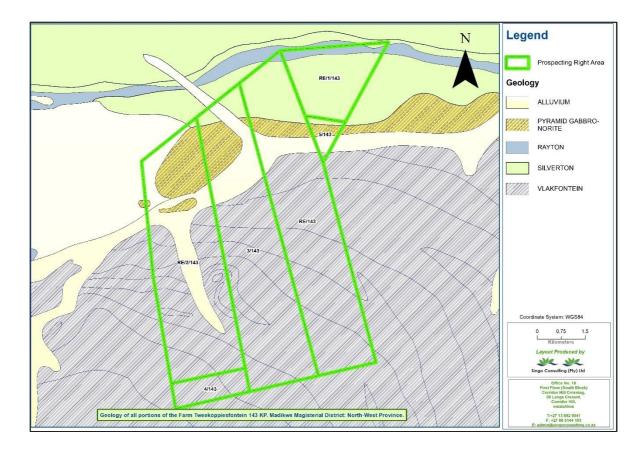
Topography Map, Mean Annual Rainfall and Temperature.



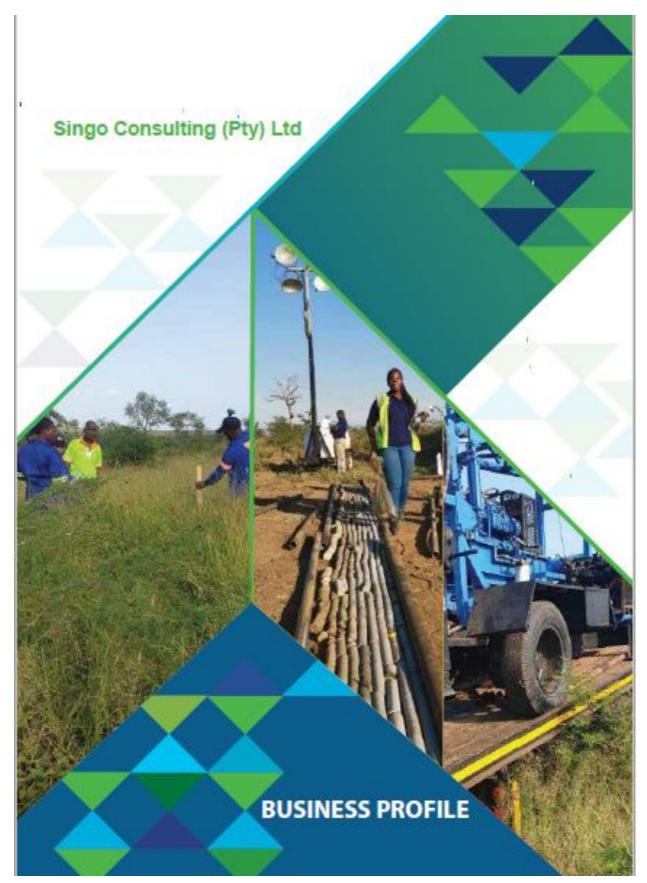
Land Cover



Soil Class Map



Geology Map



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# **ABOUT US**

## SINGO CONSULTING





## **Company Background**

In the year 2008 Singo Consulting was formed as an Independent Consulting Company focused to create opportunities for Mining & Environmental Industry. The core business is providing Geological. Environmental & Hydrological Solutions to the industry.

The company has grown rapidly, and it is making itself known within the length and breadth of the Republic of South Africa. Single Consulting takes pride in the outstanding quality of our services driven by our core values which are: due diligence, integrity, and honestly (independency).

Singo Consulting (Pty) Ltd is a private independent research consultancy and advisory company based in eMalahleni (Witbank), holding no equity in any project and is owned by the staff. This enables it to offer clients objective support on crucial issues.

## Vision

To be the leading consulting company within the consultancy market.

### Mission

Singo Consulting provides high value Geological. Hydrological Environmental and deaning and rehabilitation specialized services to clients across a range of industries that are primarily natural resource based. The company aims to be a consultant that communicates sound waste and environmental services solutions.

As a full service Scientific & Environmental firm. Singo Consulting (Pty) Ltd considers each project on an individual basis, providing expert technical services while meeting deadlines & staying within budgets.

## SINGO CONSULTING



Dr. Singo Ndinannyi Kenneth Managing Director

#### QUALIFICATIONS

- Ph.D. Geology, Applied Environmental Minerology & Geochemistry (UJ)
- MSc Environmental Management (University of South Africa (UNISA)
- BSc (Hons) in Mining & Environmental Geology (UNIVEN).
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- +27 78 2727 839
- +27 72 08l 6682
- +27 86 514 4103
- kenneth@singoconsulting.co.zo
- www.singoconsulting.co.zo

#### AFFILIATIONS

- South African Council for Natural Scientific Professions (SACNASP: Earth Science Reg. No: 400069/16).
- Geological Society of South Africa (GSSA).
- Land Rehabilitation Society of Southern Africa (LaRSSA)
- South African Affiliates of the International Association for Impact Assessment (IAIAsa)
- WESSA (Reople Coring for the Earth)
- Environmental Assessment Practitioners Association of South Africa (EAPASA)

He worked for Malateng Mining as Geologist Consultant and Environmental Analyst. In search for growth, he joined Noondezi Coal Company in Mazambique. Tete Coal basin as Leading Project Geologist. He worked for Anglo American Thermal Coal as a Senior Project Geologist. He is the Managing Director and Principal Consultant for Singo Consulting (Pty) Ltd

Kenneth has knowledge of Mine Water & Mine Environmental Management (acid mine drainage, heavy metal assessments & tailings management) in various commodities including Silca (general), gold, magnesite & base metals (Cu. Po. Zn). He has extensive knowledge of defunct mining waste and waste water impact assessments in communities residing in the vicinity of those mines. This knowledge was gained through MSc. Kenneth has sound knowledge of risk assessment, both in terms of human health and the environment. He is experienced in the appraisal of potential constraints, as well as devising means of mitigation through remedial strategy development, feasibility and validation.

During his PhD studies. Kenneth learned how to operate within contaminated lands. His PhD largely focused an disused mines (gold, copper & magnesite) ranging from Phase I & Phase II investigations to development of remedial strategies (i.e. Phase II). His PhD futher equipped him to intensively understand the waste dassification, profiling and understanding of the implications associated with the management of waste. landfill disposal profiling and development of beneficiation strategies.



## 

### LIST OF CONFERENCE PROCEEDINGS, SYMPOSIUMS & PUBLICATIONS:

N.K. Singo\*. 2015. Wits GSSA REI Colloquium: Economic Potential and Viability of reclaiming mine dumps in the Limpopo Province. Ilth November 2015. Witwatersrand University. Johannesburg. South Africa.

N.K. Singo\* and J.D. Kramers. 2016. Uranium as a potential health hazard as well as (even) an economic asset in the Lauis Moore tailings dump. near Giyani. Limpopo Province. In symposium Proceedings: 6th Mintek Analytical Symposium "The Environment". Mintek G4. Randburg. Johannesburg. South Africa. Friday 21 October 2016.

N.K. Singo\* & J.D. Kramers. 2017. Chrysotile (white asbestas) occurrence in the Nyala Magnesite Mine dumps and the soils around them. & its health implications to the community of Zwigodini Village. Limpopo Province. 5th Annual Conference. 14 August 2017. Resilient Landscopes in a Changing Climate.

N.K. Singo\* and J.D. Kramers. 2017. Unlocking the potential economic benefit of a tailings dump through resource modeling and estimation: SHE (safety, health, and environmental) issues and solutions. MineSafe 2017 Conference. Striving for zero harm (driving excellence through compliance). Emperors Palace. Hotel Casino Convention Resort. Johannesburg. 30–31 August 2017. The Southern African Institute of Mining and Metallurgy (SAIMM).

N.K. Singo\* and J.D. Kramers. 2018. Discovery of white asbestos (drysotile) in unrehabilitated dumps and soils at the abandoned Nyala magnesite mine. Limpopo province. Proceedings of the 6th International Mining and Industrial Waste Management Conference. 29. 30 & 31 October 2018 – Legend Golf and Safari Resort. Limpopo.

#### LIST OF WORKSHOPS:

N.K. Singo\*\*. and J.D. Kramers. 2016. Uranium as a potential health hazard as well as (even) an economic asset in the Lauis Moore tailings dump. near Giyani. Limpopo Province. Remediation of Heavy Metal Contaminated Soil & Groundwater Workshop. 10-11 November 2016 at the Focus Rooms Sunninghill. Sancton. Johannesburg. South Africa.

\*Presenter and First Author \*\*Keynote Speaker

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"Protect & Manage the best remaining Environment"

## 



"Mr Talelani Anthony Singo Land and Water Division Lead MSc Environ (Cand), (BSc (Hone) Hydrology & Water Recources)

Anthony is a Hydrologist. He has been actively involved in many projects including, but not limited to: Water quality studies on boreholes drilled in close vicinity of the abandoned mine, water balance & chemistry of the tailings dumps of Musina Copper Mine. Giyani Lauis Moore Gold Mine and Zwigodini Magnesite Mine.

He was a Team Leader for the Water Studies Project at Weideman Quarry Open Pit (Ermelo, MP). The scope of the project included: Surface. Intermediate and Deep-water sampling for the analysis of a variety of parameters to meet the DMP requirements.

He is currently busy with his Masters of Science (MSc) in Environmental Sciences at the University of South Africa (UNISA), the main focus of which is closure and rehabilitation of mines.

Anthony is a registered competent person with the South African Council of Natural Science Professions (SACNASP: Water Resources Science Reg. No: 116762). Geological Society of South Africa (GSSA), the Land Rehabilitation Society of Southern Africa (LaRSSA) and Southern Africa Water Institute (WISA). Anthony is currently busy with an MSc in Environmental Management (University of South Africa (UNISA)) and holds BSc (Hons) in Hydrology and Water Resources (the University of Venda).

Anthony has knowledge of Mine Water and Mine Environmental Management in various commodities. He has extensive knowledge of hydrological aspects such as flood-line modelling, stormwater management (Pollution Control Dam (PCD) sizing. Sit traps sizing & channel sizing). Water quality monitoring (both Surface & ground water). Due to his MSc he already gained knowledge of mine rehabilitation. He is experienced in the appraisal of potential constraints, as well as devising means of mitigation through remedial strategy development, feasibility and validation.

He designs starm water management plans he acquired experience through different projects that were done in South Africa and other African countries such as Angola and many more. He delineates dean and dirty water catchments with the use of GIS.



## SINGO CONSULTING



#### Mr Ndtvhuwo Maxwell Mualust Administrative Assistant

Mr Maxwell Mualusi is responsible to act as the paint of contact for all employees, providing administrative support and managing their queries. Main duties include managing office stad. preparing regular reports (e.g. expenses & affice budgets) & arganizing company records, more especially Department of Mineral Resources papers.

He also has working knowledge of office equipment and affice management tools. Maxwell is assisting in daily affice needs such as timelines of company's projects, maintaining appropriate filing systems and managing the company's general administrative activities. Maxwell is able to ensure our administrative activities run smoothly on a daily & long-term basis.



Mr Livhuwani Sigwadi Junior Consultant BSc (hors) Environmental Management (Univen)

Areas of Expertise Environmental Management (ind. compliance monitoring &Environmental Law & Project Management. Key Responsibilities as entitled by the policies of Singo Consulting (Pty) Ltd. Mr Livhuwan's duties involve taking full responsibility to ensure quality control on given projects as well as managing project timelines.

Ensuring that projects are managed efficiently and according to their agreed timeframes. Conduct environmental impacts assessment public participation activities, environmental compliance audit & sampile sound & reader friendly reports/plans. Livhuwani has 5 years working experience as Nature Conservator in the department of Economic Development Environment & Tourism



Ms Masindi Nefale Junior Consultant 85c (Hanz) Mining and Environmental Geology

Ms Masindi Nefale is a Junior Consultant who has been appointed by Singo Consulting. She is accountable for Prospecting Right projects. Mining Right projects and Mining Permits.

She joined Singo Consulting from Bidvest Protea cain, where she was working as a logistics officer. She has a wish of furthering her studies in the world of earth science.

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Mr Siyabonga Mashigo Junior Consultant

Environmental Sciences (Cand.)

Mr Mashigo is a Junior Consultant who has been appointed by Singo Consulting. He is accountable for Prospecting Right projects. Mining Right projects and was also appointed as an Environmental Control officer.

He is an Environmental Sciences candidate at Tshwane University of Technology: he is very passionate about environmental sciences and geology.

He was ance appointed by G3 Business Solutions to conduct a survey for Anglo American and 2016 he was appointed as a logistics afficer by Green Arcadia where he had an apportunity to serve as a facilitator at Friends of Colbyn showing casing a wetland model. He has a wish of furthering his studies in the world of earth science.



#### Miss. Shonisani Rudzani Juniar Consultant N.Dip Geology

Rudzani is a Junior Consultant. She Joined Singo Consulting Pty (Ltd) in August 2018 and she has been actively involved in assistance with environmental authorization processes (including Basic Assessment and Scoping & Environmental Impact Assessment processes), report writing, public and authority consultation, environmental site assessment assisting in the management of large and small EA and environmental permitting projects, as well as applying and enforcing Singo Consulting Pty (Ltd) project standards.

She was a core masker intern at Terracore (Pty) Ltd and she was involved in several projects inducing making, product check, core log interpretation and bax masking and also worked at Vhembe Municipality as juniar technician, involved in chilling projects, office based report check and admin work.

Rudzani is currently studying towards her BTech in Geology at Tshwane University of Technology and she is doing her research project with Singo Consulting Pty (Ltd) under the supervision of Dr NK Singo.

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## SINGO CONSULTING

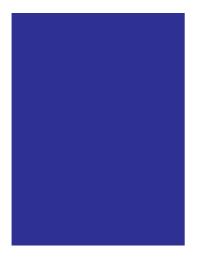


#### Miss Bolpelo Mothathedi Junior Consultant

BTech: Geology (Cand), N.DIP: Geology

Boipelo is a Junior Consultant. She joined Singo Consulting in May 2018 & she has been actively involved in assistance with environmental authorization processes (including Basic Assessment and Scoping & Environmental Impact Assessment processes), report writing, public & authority consultation, environmental site assessment, assisting in the management of large and small EA & environmental permitting projects as well as applying & enforcing Singo Consulting Pty (Ltd) project standards

She was a Geophysics intern at Open Ground Resources & she was involved in several projects including gravity & Ground Penetrating Radar (GPR). Baipelo is currently studying towards her BTech in Geology at Tshwane University of Technology and she is doing her research project with Singo Consulting under the supervision of Mr FS Rakhadani and Mr NK Singo.



MR. Luthando O Engineering Geologist Bsc (Hons) Geology Msc Environmental Geochemistry (Cand)

Mr Luthada O is an Engineering Geologist of over 3 years to present experience of consulting in the geotechnical engineering field, he holds a Bsc (Hons) Geology degree from University of Venda. He has been involved in various projects inducing but not limited to Dolomite Stability Investigations. Geotechnical investigations for foundation designs. NHBRC enrolments and in Geohydrology where he conducts Borehole contamination monitoring, borehole yield tests, water quality assessments, pumping tests, and Packer testing.

He is currently doing his final year MSc in Environmental Geochemistry where his facus of study is on the assessment of level of contamination resulting from the tailing dams of the Murchison Greenstone Belt to nearer villages.



## SINGO CONSULTING



#### Mrs Elelwant Singo Senior Safety Officer 8Tech, NQF level 4 Engineering & Safety Management

Mrs Singo is responsible for all safety principles and best i practices at the Operating site. She is the facilitator of organisational cost saving initiatives. Her summary duties is to:

- Ensure implementation and upholding of all HSES policies and procedures.
- To promote and uphold safety awareness in all employees and contractors employed by
- Assist and participate in emergency drils as required.
- Report unsafe acts and conditions promptly
- Assist and advise supervisors with good housekeeping practices.
- Ensure operational personnel use and have correct protective dathing and equipment PPE.
- Ensure Fire Marshall's are deployed where required.
- Conduct gas manifolds bubble check at least 3 times per shift
- Carry out any other duties as instructed by Director



### Ms Rudzani Mufamadi GIS Technician and Environmental Consultant

BSc (Hons) Geology and Geography

An enthusiastic, highly knowledgeable professional with a , Bachelar's degree in Geography and Geology and Honaurs<sup>®</sup> degree in Geology from the University of the Witwatersrand. Rudzani has 2 years working experience in the consulting industry. Besides being passionate about GIS & environment.

She have a spirit of hard-work and believes in the production of high quality work products. Because of such beliefs, she has been adknowledged several times by means of awards and certification by several organizations such as the University of the Witwatersrand.

From her experience. Rudsani has worked in the fields of GIS. Data management & Geo-Environmental consultancy. Some of the projects she has been involved in includes identification and Description of Gold accurrence and Morphology in the Eldorado Mountains in Barbertan. Geophysical techniques in identifying rods. structures and Water Bodies. Draught in the Cape Town Area. etc.

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Miss. Mutshidzi Munyai Juniar Geohydrologist

BSc (Hons) Geohydrology, BSc Geology +27 76 924 4356

mutshidzi@singoconsulting.co.zo

Ms Mutshidsi Munyai is a proficient person who holds a geology, degree as well as a Geohydrology honours degree. She is equipped with relevant knowledge & skills to resolve geological as well as hydrogeological scientific queries.

She has knowledge of soil science, geological mapping and scientific interpretation acquired from the degree in geology (University of Pretoria), water sampling & data analysis as well as writing comprehensive interpretation of results acquired from an honours degree in Geohydrology (University of the Free State).

Miss Munyai has actively been involved in a number of projects within Singo consulting (Pty) Ltd related to hydrology, soil science and geology. Some of her main responsibilities indude but not limited to conducting groundwater modelling. Water sampling and producing diagnostic plats for interpretation using specialized softwares. She has been involved in mining water management & analysis of geohydrology of different project areas. Miss Munyai possess significant knowledge related to soil science thereby assisting in soil reports which comprises of soil dass analysis, identification of soil families and soil chemistry analysis.



#### Mr Mamphwe Vhutshilo Vincent Junior Consultant - Environmental Geologist

Junior Consultant - Environmental Geologist BSc (Hons) Mining and Environmental Geology, MSc Geo.chem(Cand) Proposal at Univ. of South Africa

Vincent is a Juniar Consultant at Singo Consulting Pty Ltd. He is actively involved with Environmental (Environmental Impact Assessment Basic Assessment Report) and Geological (Exploration Plans, Geological Mapping, Geological Desktop Studies, Drill Management and Core logging) aspects at Singo Consulting firm.

Vincent Worked as a trainee geologist at Palesa Colliery Mine (Pty). Ltd based at Mpumalanga. Were he Was equipped with mining geology skills for soft shallow racks. He did mine scheduling, grade-contal, pre & after mining survey. Modelling of the future mining plans, drilling management care logging, resource estimations and life of a mine.

He was actively involved in problem solving on pit water in the mining area. His honous research was on coal processing, on how the coal quality can be improved by basic principles of coal Washiability & plant calibration on specific gravity. Vincent utilises the combination of his GS skills to improve commodity exploration. With commodity map he proposed and introduced to the company, this has helped make sound decisions pre-drilling for exploration.

He is currently busy with MSc proposal at the University of South Africa, on geochemistry. He is a member of the International Association for Impact Assessment South Africa (IAIASA), member NCA 6019 & the Geological Society of South Africa (IGSSA).

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#### Miss. Singo Tendani Naomi Safety Officer

#### Safety Management Training Course, Incident Investigation and First Aid, NOSA

Tendani, is responsible for reviewing and meeting all state and national safety standard requirements for record-keeping. She also submits the OSHA form 300, which is a summary of all injuries that resulted in last work time, restricted duties or job transfers. Her summary duties are as follows:

- Inspects the site to ensure it is a hazard-free environment.
- Conducts to alloax meetings
- Is part of the project safety council and leads all efforts
- Promotes safe practices at the job site
- Enforces safety guidelines
- Verifies that all tools and equipment are adequate and safe for use
- The safety officer reviews and approves all subcontractors safety plans/verifies that injury log reports are completed and submitted to related government agencies
- Trains and carries out drills and exercises on how to manage emergency situations
- Conducts investigations of all accidents and nearmisses
- Reports to concerned authorities as requested or mandated by regulations
- Conducts job hazard analyses
- Establishes safety standards and policies as needed
- Performs emergency response drills
- Watches out for the safety of all workers and works to protect them from entering hazardous situations
- Responds to employees' safety concerns
- Coordinates registration and removal of hazardous waste
- Serves as the link between state and local agencies and contractors



## Mr Tshtfhtwa Netshtavha Junior Consultant

BSc (Hons) Mining and Environmental Geology

Mr Netshiavha is a junior consultant in Singo Consulting, Singo Consulting Pty (Ltd) in July 2018 appointed him as a junior consultant. He is accountable with the advertisements of services from Singo Consulting. Prospecting Rights projects & also responsible with the development of Rehabilitation plan. He is currently doing his final year MSc in Environmental Geochemistry where his focus of study is on the assessment of level of contamination resulting from the tailing dams of the Murchison Greenstone Belt to nearer villages.

He did research in legal and illegal mining (Hans) and came up with an applicable model of health and safety. It is highlighted that with great intellectual nourishment from Singo Consulting Pty (Ltd). he will consider enrolment of Msc in Geology.

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# SERVICES

## OVERVIEW We are a receptive company that provides an apportunity to clients to solve the following problems.

Geological

- Barehole Planning and Pegging
- Driling Management and Supervision
- Care Logging (diamond, percussion and RC drilling) and Care Sampling
- Exploration Rehabilitations and Managing
- Geological (Exploration Resource Estimation and Competency Report)
- Hydrological and Hydrology (Surface and Groundwater Studies)
- Soil Science (Soil profiling, Modelling and Soil Chemistry)
- Geotechnical (Sail and Rod.)
- Mining Feasibility Studies



#### Environmental

- Conducting Environmental Impact Assessments
- Developing Environmental Management Plans
- Environmental Management Systems
- Legal Compliance with Environmental Mining & Water laws
- Social Impact Assessment
- Social and Community Development Plans

#### Waste Management

· Loading and transporting



#### Cleaning Services (our moto Clean it)

 Industrial Cleaning: Singo Consulting is a leading service provider within the mall or shopping complex, mining, government and manufacturing industries. We pride ourselves in customer satisfaction by providing excellent quality services on time. We are driven by the need to protect the environment through preservation reuse & recycling

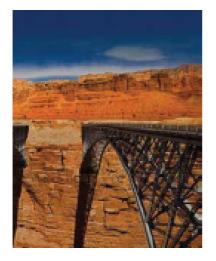
We do office and other industrial Cleaning, dam dearing.
 Dredging Services Slumy Pumps High Pressure Cleaning & more

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# SERVICES

## **OVERVIEW**

We are a receptive company that provides an opportunity to clients to solve the following problems.



#### Geotechnical Engineering

- Desktop Studies for Geotechnical Investigations
- Geotechnical investigations for Roads.
- Geotechnical Mapping
- Slope Stabilization & Slope repair
- Dolomite Stability Investigation
- Geotechnical Assessments of Sinkholes and Rebilitation.
- · Rock Fall Protection Fence Walls & rackfall stabilization
- · Erosion control services & materials
- Soil Boring and Augering.
- · Piling design and supervision.
- Insitu soil testing
- DPSH Probing
- DCP Probing
- Raymond Spoon Sampling



#### Site Rehabilitation

 Singo Consulting a leading specialist in providing innovative and effective solutions for slimes dam. dust control. & the rehabilitation of mining & industrial sites. We provide a turnkey solution to all environmental problems.

- Close of the drill site and mined out areas

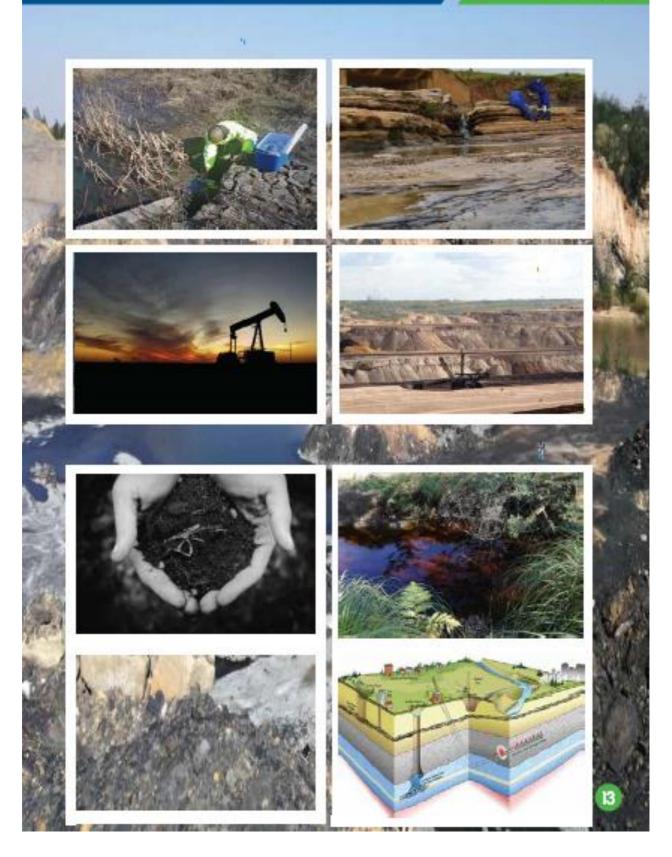


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# GALLERY

## SINGO CONSULTING



# **CONTACT US**

## SINGO CONSULTING



### POSTAL ADDRESS

P/Bog X7297 Postnet Suite 87 Highweld Mall Witbank 1035

#### OFFICE ADDRESS

O7 Langa Crescent. Corridor Hill Crassing First Floar (South Block). Office No. 16. eMalahleni

### CONTACT DETAILS

- (i) +27 13 692 0041
- 🕦 +27 78 272 7839
- 127 72 081 6682
- +27 86 614 403
- www.singocoreuting.co.zo
- kenneth@singoconsulting.co.zo

#### **Appendix C: Competent Authority**

mineral resources

1

Private Bag A1, KLERKSDORP 2570 Fax No: (018) 487 4350 / Tel No.: (018) 487 4360 Enquiries: J.H Makhubala Reference No. NW 30/5/1//2/12710 PR

Niche Mining Resources 247 (Pty) Ltd Private Bag X7297 Highveld Mall eMalahleni WITBANK, 1035

Fax: 000 514 4103

E-mail Address: kenneth@singoconsulting.co.za

Attention: Ndinannyi Kenneth Singo

ACCEPTANCE OF AN APPLICATION FOR A PROSPECTING RIGHT IN TERMS OF SECTION 16 OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT AGT, AGT 20 OF 2002 (ACT) A3 AMENDED BY SECTION 12 OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT AMENDMENT ACT, ACT 49 OF 2008 "HEREIN REFERRED TO AS THE AMENDED ACT": THE REMAINING EXTENT OF PORTIONS 1, 2, PORTIONS 3, 4, 5 AND THE REMAINDER OF THE FARM TWEEKOPPIESFONTEIN 143 KP, SITUATED IN THE MAGISTERIAL DISTRICT OF MADIKWE.

I hereby confirm that your application for a prospecting right for chrome ore, manganese ore and nickel ore in terms of section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) (as amended) has been accepted

In terms of Section 12(d) read with regulation 52(1) of the said Act, you are therefore required to consult in the prescribed manner with the landowner, lawful occupier and any interested and affected party and include the result of the consultation in the relevant environmental reports. In light of the minimum requirements as stipulated on Regulation 16(1) and 16(2) of the EIA Regulations, your application for an Environmental Authorisation was incomplete as it was not accompanied by this acceptance letter as per Sub Regulation 16(1)(ix) and considering that it is now completed by this acceptance letter, you are hereby required to submit the documents as stipulated on Regulation 19(1) to 19(8) of the EIA Regulations (Only in cases where Basic Assessment Report is applicable) or Regulation 21 (Scoping Report) and Regulation 23 (EIR and EMPR) (in case of Scoping and Environmental Impact Report). Please ignore the submission of this report in case you have already submitted. All timeframes are effective from the date of this letter.

۴.

Kindly take note that the area you applied for falls under Tweekoppiesfontein Private Nature Reserve and in terms of Section 48(1)(c) of the Act subject to section 20 of the National Parks Act, 1976 (Act No. 57 of 1976), and subsection (2), no reconnaissance permission, prospecting right, mining right or mining permit may be issued in respect of:

> a) Any land being used for public or government purposes or reserved in terms of any other law.

You are requested in terms of Section 29 read with Section 48(2) of the Act to submit:

> a) A detailed motivation having regard to the sustainable development of the mineral resources involved and the national interest; and

you are also required to consult with the Department of Environmental Affairs due to the fact that the land applied for is a proclaimed Nature Reserve and the Department of Land Affairs if the land is state owned and in the event that the land is subject to land restitution, to consult the office of the Commission on Restitution of Land Rights and submit on line and hard copy to the Regional Office the results of such consultation on or before the 06<sup>th</sup> of January 2020 (30 days). You are further requested in terms of section 17 (4) of the act to give effect to the objects referred to in section 2 (d) of the Act (DEE). In this regard you are required to submit online and hard copy to this Regional office by not later than the 17<sup>th</sup> of February 2020 (60 days), the following documents:

- a) duly signed shareholders agreements;
- b) share certificates and shareholder's registers;
- c) articles and memorandum of association of the company;
- d) details relating to funding (all relevant agreements); and
- e) any other agreement or documents relating to the agreement

"Your attention is drawn to the provision of section 17 (1) (e) of the MPRDA, which provide that the Minister may grant an application for a prospecting right if the applicant is not in contravention of any relevant provision of this Act. Section 19(2)(f) places an obligation on the holder of a prospecting right to pay the prescribed prospecting fees, as per Regulation 76 of the MPRDA.

You are therefore reminded to ensure that payment of all prospecting fees for all the prospecting rights that you hold, are up to date, failing which this may have a negative impact on the outcome of your current application"."

Acceptance of your application does not grant you the right to commence with prospecting operations. Your application will be evaluated/processed and a recommendation on the granting/refusal of the right will be forwarded to the Minister or her delegate. Any person operating without a prospecting/mining right or mining permit will be in contravention of Section 5(4) of the MPRDA and would be guilty of an offence in terms of the relevant Act. Take note further that failure to submit the documents as requested and failure to adhere to the timeframes as stipulated above amounts to non-compliance with the provision of the Act and will therefore lead to your application being recommended for refusal without further notification to you.

Yours faithfully

REGIONAL MANAGER NORTH WEST, REGION DATE: 2019

#### **Appendix D: Consultation Report**

### **Public Consultation Report**

This report is required for an application for a prospecting right, as well as environmental authorisation for prospecting on Portions 1 and RE of the Farm Somerville 62 IQ, Portions 1-7, 9,11-15,17-30 & RE of the Farm Klerkskraal 65 IQ, Portion RE of the Farm Eileen's Home 67 IQ, Portions 10,11,13,19 & RE of the Farm Bovenste Oog van Mooirivier 68 IQ & Portion RE of the Farm Bovenste Oog van Mooirivier 271 IQ, situated under the Magisterial District of Moses Kotane, North West province.

## **D1. CONSULTATION REPORT**

### **1. INTRODUCTION**

This Consultation Report has been compiled for an application for a Prospecting Right and Environmental Authorisation Application that has been submitted in terms of the Mineral and Petroleum Resources Development Act (Act No.28 of 2004) (MRPDA) and the National Environmental Management Act, Act No. 107 of 1998 (NEMA). The application for a Prospecting Right on TWEEKOPPIESFONTEIN 143 KP ON RE OF PORTION 1, RE OF PORTION 2, PORTIONS 3,4,5 AND RE which was submitted to the North West Department of Mineral Resources (DMR) (**Reference Number**: NW 30/5/1/1/2/12710 PR).

As part of the application process, the DMR requires that the applicant undertake public consultation as part of the basic assessment (BA) process. In fulfilment of this requirement, **Niche Mining Resources 247 (Pty) Ltd** appointed **Singo Consulting (Pty) Ltd** to conduct the public consultation process with the landowners and other affected parties and to compile this report. This report describes the process used to notify stakeholders and Interested and Affected Parties (I&APs) of the applications.

The proposed prospecting will be taking place in Madikwe at North West Province. The activities applied for will take place on the following property:

#### Table 1: Proposed Farm and Farm Portions

Farm(s) Name	Farm No.	Portions
TWEEKOPPIESFONTEIN	143 KP	Portion 1, RE of Portion 2, Portions: 3,4,5 and RE

### b) The Applicant

**Niche Mining Resources 247 (Pty) Ltd** lodged an application for environmental authorization for a prospecting right with the North West DMR. The applicant's details are as follows:

Project applicant:	Niche Mining Resources 247 (Pty) Ltd			
Registration no (if any):	2014/115748/07			
Trading name (if any):	Niche Mining Resources 247 (Pty)	Niche Mining Resources 247 (Pty) Ltd		
Responsible Person, (e.g. Director, CEO, etc.):	Mr G B Simelane			
Contact person:	Mr G B Simelane			
Physical address:	P.O.BOX 11365 Centurion 0169			
Postal address:	P.O.BOX 11365 Centurion 0169			
Postal code:	0169	Cell:	076 246 6377	
Telephone:		Fax:	086 568 4360	
E-mail:	<u>simelane@jamets.co.za</u>	]		

#### Table 2: Applicant Contact Details

### c) Environmental Assessment Practitioners

Singo Consulting (Pty) Ltd has been appointed on behalf of Niche Mining Resources 247 (Pty) Ltd as an independent environmental consultants to undertake the Public Participation Process and compile the Basic Assessment Report and Environmental Management Program (EMPR) for this application process.

Name	Singo Consulting (Pty) Ltd
Tel:	+27 13 692 0041
Fax:	+27 86 5144 103
Cell:	078 548 1244
Email:	rudzani@singoconsulting.co.za / admin@singoconsulting.co.za
Postal Address:	P/Bag X7214, Postnet Suite 125, Witbank, 1035

Table	3:	EAP	Contact	Details
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### PUBLIC PARTICIPATION PROCESS

#### a) Legislative Framework

In terms of Section 24 (4) of the Act and Regulation 41 (b) of the NEMA Regulations (2014) (as amended 2017), Niche Mining Resources 247 (Pty) Ltd is required to consult with, and notify in writing, all landowners or lawful occupiers and any I&APs of the prospecting right application and the BA process. Legislation also requires the results of such consultation to be submitted to the DMR together with the Final BAR within 90 days of the applicant receiving acknowledgement of receipt of the application for the prospecting right. To ensure compliance with the MPRDA and NEMA Regulations the following activities have been undertaken to date:

- Identification of Stakeholders IAPs;
- Development and on-going updating of an IAP database;
- Advertising the notification of application for the prospecting right and environmental authorization applications in a local newspaper;
- Placement of site notices;
- Email distribution of letters of notification and BIDs to IAPs;
- Placement of the Draft BAR and EMP in public venues for public review and comment; and
- Conducting a public open day providing an opportunity for stakeholders to get answers from Niche Mining Resources 247 (Pty) Ltd and Singo Consulting (Pty) Ltd.

These aspects that form part of the public participation process (PPP) and are discussed in detail below.

### b) Objectives of Public Participation

Following the requirements for public participation in terms of the NEMA, objectives of the PPP include providing sufficient and accessible information to enable stakeholders to:

- Identify issues of concern;
- Make suggestions for enhanced benefits and commenting on alternatives;
- Contribute to local knowledge and experience; and
- Ensure that their comments, issues of concern and suggestions are correctly captured, addressed and considered in the BA process and BAR.

### d) Commencement of PPP

Singo Consulting commenced with the PPP for the BA process on the 1<sup>st</sup> of November 2019. This was concluded on 13 January 2020, allowing IAPs a 50-day including December holidays as per Chapter 2 timeframes 3(2) of the amended government gazette of the 7<sup>th</sup> April 2017, comment period to respond to the proposed application.

#### e) Identification of Interested & Affected Parties

A stakeholder database for the application was developed and updated during the PPP. Stakeholders and I&APs were identified at national, provincial, district and local levels (refer to **Appendix D2**). Other IAPs surrounding the project site were also identified and added to the database, and the general public was invited through advertisements and the distributed BID documents to register as IAPs on the database.

#### f) Written Notification

#### Advertisements

An advertisement was placed in a newspaper (i.e. *Platinum* weekly, on Friday 01 November 2019) to advertise Niche Mining Resources 247 (Pty) Ltd's intention to prospect Manganese, Chrome and Nickel ore resources along with its application for environmental authorization. The advertisement served to notify the public about the applications and the BA process, provided the description and location of the proposed activities, the availability of the Draft BAR for review and comment and the 30-day public review period, and details on the environmental consultants to contact for the BID and further information on the proposed project. Please refer to **Appendix D3** for the clipping of the advertisements.

#### Site Notices

A3 and A2-sized site notices containing the same information as the advertisements were put up around the proposed project area on 29 October 20109 and 23 November 2019. A total of 9 site notices were erected- in English. Please refer to **Appendix D4** for photographic evidence and locations of all notices.

#### Letters of Notification

A letter of notification of application for environmental authorization and the BA process was compiled for identified IAPs. The letter provided details on the applicant, EAP and the consultation period for raising issues, concerns and / or queries. Please refer to **Appendix D8** for a copy of letter and proof of emails sent.

#### Background Information Document

A background information document (BID) to provide further information on the proposed project and BA process was prepared for IAPs (please refer to **Appendix D2**). The BID provided the following information:

- Purpose of the BID;
- Appointed EAP;
- Project Description including proposed project activities;
- Basic Assessment and Public Participation process;
- Contact details of the EAP for IAPs to register and send through written issues, concerns or queries; and
- Map of the proposed area (farm portions).

The BID was available in English.

### f) Public Open day

The public open day offer an opportunity for I&APs to register on the stakeholder database and to submit written comments to the consultant. Information on the project was put on posters for the public to view (please refer to **Appendix D4**). In addition to site notices and the newspapers adverts, I&APs were sent a letter of notification informing them of the application process and upcoming public open day. Please Refer to **Appendix D8 & D9**, which provides a copy of the notification letter.

#### g) Focus Group Meeting with Landowners and Representative

The landowner is Baphalane ba Sesobe Communal Property Association (CPA). Letter of notification about proposed project was sent to the landowner above via email to notify. The letter also offered the landowner and his representative an opportunity to raise issues and concerns with the project as part of the public consultation process. Letter of notification is found in **Appendix D5** of this **Draft Report** .A copy of the Draft BAR and EMP released into public domain on 03 December 2019 for the public to review. The documents were placed as follows:

 Electronic copies made available on Email via the following address: rudzani@singoconsulting.co.za

• Draft copies were couriered to north-west for various departments to review and also to Pretoria for DWS and DEA. Proof of all key correspondence with I&APs can be found in

#### Appendix D

### **D2. BACKGROUND INFORMATION DOCUMENT (BID)**

Г					
For further information and all correspondence for DMR REF: "NW 30/5/1/1/2/12710 PR" as reference, contact:					
Miss Shonisani Rudzani					
JK JK					
Singo Consulting (Pty) Ltd					
Office No. 16, First Floor (South Block),					
Corridor Hill Crossing, 9 Langa Crescent, Corridor Hill, eMalahleni (Witbank), 1040					
Tel: 013-692-0041					
Cell: 078-548-1244/079-930-4772					
Fax: 086-514-4103					
Email: rudzani@singoconsulting.co.za					
Email (Alt): admin@singoconsulting.co.za					
Cell: 078-548-1244/079-930-4772					
Fax: 086-514-4103					
Email: rudzani@singoconsulting.co.za					
Email (Alt): admin@singoconsulting.co.za					

BASIC ASSESSMENT PROCESS OF AN APPLICATION FOR PROSPECTING RIGHT

BACKGROUND INFORMATION DOCUMENT FOR: TWEEKOPPIESFONTEIN 143 KP ON RE OF PORTION 1, RE OF PORTION 2, PORTIONS 3,4,5 AND RE.

November 2019

REFERENCE: NW 30/5/1/1/2/12710 PR



It is Niche Mining Resources 247 (Pty) Ltd's has applied for a Prospecting Right in terms of Section 24 of the NEMA, 1998 read with Regulation 19 of the EIA Regulations, 2014 and in terms of Section 16 of the Minerals and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), as amended by Section 12 of the MPRDA, 2008 (Act No. 49 of 2008), for the environmental authorisation of prospecting activities for the following minerals: Manganese, Chrome and Nickel on RE of portion 1, RE of portion 2, portions 3,4,5 and RE of the farm; Tweekoppiesfontein 143 KP, situated in the Magisterial District of Madikwe, North-West Province. The environmental authorisation application was lodged with Department of Mineral Resources (DMR): Mine Environmental Management as the Competent Authority. Prospecting activities will enable Niche Mining Resources 247 (Pty) Ltd to determine if economically viable mineral deposits exist within the area being applied for.

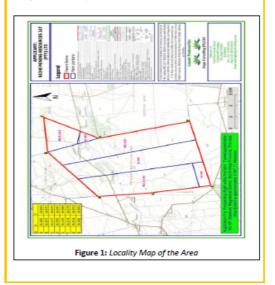
#### PURPOSE OF THIS BACKGROUND INFORMATION DOCUMENT

- This document aims to provide you, as an interested and affected
- party (I&AP), with:
- 1. Information about the proposed prospecting activities;
- 2. Describe the Prospecting Right Application and the process being undertaken to obtain environmental authorisation
- according to relevant South African legislation;
- 3. Details of how you can become involved in the process, receive information, or raise issues which may concern or interest you.

#### PROJECT DESCRIPTION

The Environmental Authorisation Application is for prospecting activities for the following minerals: Manganese, Chrome and Nickel which is located approximately at approximately 73.77km North-West of Phalane, 74.09km North of North-East of Zeerust.

The proposed prospecting activities will be covered under application reference NW 30/5/1/1/2/12710 PR will be undertaken on RE of portion 1, RE of portion 2, portions 3,4,5 and RE of the farm; Tweekoppiesfontein 143 KP, situated in the Magisterial District of Madikwe, North-West Province. See Figure 1 for Locality map of the area.



#### PROSPECTING ACTIVITIES

Prospecting activities will be undertaken over a period of approximately 5 years. The application is for both non-invasive and invasive methods of prospecting.

Non-Invasive methods are methods that do not cause disturbances to the land. Examples of non-invasive methods include aerial photography, desktop studies, aeromagnetic surveys. Invasive methods are activities that result in land disturbances and comprise of diamond core drilling, sampling and sampling storage. The proposed activities will be implemented in phases as detailed below.

#### a) Non-Invasive Activiti Literature Review

Initial Phase 1 work will include the collection and interpretation of all available data and the compilation of a Geographic Information Systems (GIS) database. The information to be collected will include aerial photos, orthophotos, aeromagnetic data, topo-cadastral maps, geological maps, results of historic exploration programmes and any other published literature and maps. The desktop study will aid in compiling a preliminary geological model of the area to be utilized in the planning geological mapping and sighting of drill holes.

#### Geological mapping

Mapping will involve ground truthing the occurrence of Part of Bushveld complex which will be enclosed on Alluvium, Pyramid Gabbro-Norite, Rayton, Vlakfontein and Silverton Lithology. See Figure 2.

#### Geology of the area:

Greenstone belts are elongate outcrops of volcano-sedimentary sequences that are wedged in between granitoid-gneiss domes. They are a characteristic feature of the Archaean and contain much of the Earth's mineral wealth (de Wit and Ashwal, 1997). Greenstone belts are dominated by thick successions of commonly pillowed submarine basalts that are complexly intercalated with ultramafic to felsic volcanic and volcaniclastic rocks and siliciclastic and chemical sediments. These sequences provide the only clues to early atmospheric and hydrospheric processes and to the origin of life on Earth.

#### Sample analysis

The drill core will be sampled where a mineralized section is intersected. The core will be split into two halves, with one half of the core taken for assay purposes and the other half being retained. Each sample will be measured and weighed, and the sample lengths will be recorded before dispatch for assays at a South African National Accreditation System (SANAS) accredited laboratory. The sampes will be analysed for Pt, Pd, Au, Mn and Rh by fire assay and Cu and Ni will be analysed by pressed pellet X-ray fluorescence.

#### Preliminary economic assessment

A preliminary economic assessment is a study conducted to determine whether a project has the potential to be viable. At this stage, the mineralization, regardless of its quantity and quality, is always considered to be a mineral resource. This study is generally based on industry standards rather than derived from detailed site-specific data.

#### Pre-feasibility study

The pre-feasibility and feasibility studies are more detailed. By the time a decision is made to proceed with a pre-feasibility study, a preliminary mineral resource report has been finalized and an orebody model demonstrating its shape, tonnes, and grade is available. A resource cannot be converted to a reserve unless it backed up by at least a pre-feasibility study. Their results will show with more certainty whether the project is viable. At this point, the mineral resource, or a portion thereof, becomes a mineral reserve.

#### b) Invasive Activities

#### Drilling

Diamond drilling techniques will be utilized to prospect for mineralization across the Proposed Prospecting Area. Should core loss occur, the driller will be required to re-drill the mineralized intersections, by use of wedges (deflections) to maximize sample recovery and to ensure that samples are representative.

Geological, structural and geotechnical logging will be performed by experienced geologists and geotechnical engineers to ensure appropriate and sufficient Mineral Resources estimation, mining and metallurgical studies.

After all drilling has been completed, the boreholes will be surveyed (surface and down hole drill path) by a registered land surveyor.

#### Discovery Drilling

The results of the Phase 1 will be used to assist in the ideal location of 16 drill holes (Figure 2) at maximum depth of 1000 m. Initially, only 8 of the 16 planned boreholes will be drilled. The objective of the initial drilling will be to confirm the occurrence of the minerals within the proposed prospecting area. As a result of the known structural complexity of the area in which the proposed prospecting areas is located, initial boreholes will be widely spaced in order to increase the understanding of the overall geology. The expected depth will be guide by initial geological interpretation pre-existing data, mapping and test pitting.

#### **Resource Drilling**

Subsequent to Phase 2 drilling, the results will be used to design a systematic drilling programme aimed at delineating a Mineral Resource on the Proposed Prospecting Area. implemented to ensure that all potential impacts identified in the BA process are mitigation and managed in a responsible manner.

Per the requirements of the EIA Regulations, 2014 (as amended), the BAR and EMPr aims to provide the following information but is not limited to:

 A description of the environment that is likely to be affected by the proposed prospecting; The number of boreholes will depend greatly of the results of Phase 2 drilling; a minimum of 6 is planned thus far.

#### Description of pre-/feasibility Studies

Pre-feasibility studies are detailed studies that involve the use of metrics and data specific to the project under consideration not standard industry methods. Pre-feasibility studies usually include a range of options for the technical and economic aspects of a project and are used to justify continued exploration, to complete the required project permitting or to attract a joint venture partner. The overriding aim of a pre-feasibility study is to select the preferred option, also known as base case scenario, for the project development. This base case scenario is then developed in sufficient detail to underpin decisions to devote any additional funds required to move the project through subsequent stages of development and to a final feasibility study.

During each of the above-mentioned phases all directly and indirectly impacted and affected parties will be consulted with before any activities take place.

#### PROSPECTING RIGHT ENVIRONMENTAL AUTHORISATION APPLICATION PROCESS AND PUBLIC PARTICIPATION

#### Legislation:

An Environmental Authorisation in terms of Section 24 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) read with Regulation 19 of the Environmental Impact Assessment (EIA) Regulations, 2014 (as amended) and Section 16 of the Minerals and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), as amended by Section 12 of the MPRDA, 2008 (Act No. 49 of 2008) is required for a Prospecting Right.  Assessing the significance of the potential impacts of the proposed project on the environment, socio-economic conditions and cultural heritage; and
 Evaluating the proposed mitigation measures to minimize negative impacts.

#### Public Participation:

In terms of Chapter 6, Regulations 40 – 44 of the EIA Regulations, 2014 (as amended), Mvelo Mineral Resources is required to consult with interested and Affected Parties (IAPs). Comments received from the IAPs will be recorded and included in the Public Consultation and Disclosure Report which will be submitted to the Department of Mineral Resources (DMR) in the North West Province.

#### "Your Responsibilities as an I&AP and How To Become Involved"

Your attention is drawn to your responsibilities as an I&AP:

- In order to participate in this process, you must register yourself on the project database.

 You must ensure that any comments/queries regarding the proposed project are submitted within the stipulated timeframes.

 In terms of the EIA Regulations, you are required to disclose any direct business, financial, personal or other interest which that you may have in the approval or refusal of the application for the proposed project. A Basic Assessment Report (BAR) and Environmental Management Programme (EMPr) has been compiled in terms of Regulation 19 of the EIA Regulations, 2014 (as amended). The EMPr (once approved) must be HOW TO COMMENT:

1. By responding by phone, fax, post or e-mail to the invitation for your involvement/ registration.

2. By returning the attached Comments and Registration Sheet to the relevant contact person.

3. By contacting the public participation consultants with queries or comments

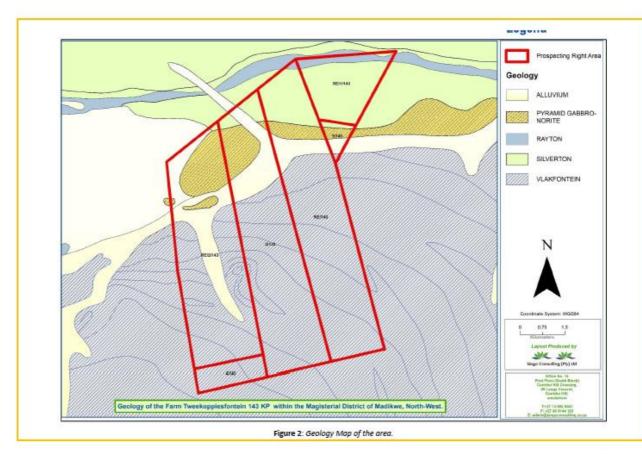
4. By reviewing and commenting on the draft Basic Assessment Report within the stipulated 30-day public review period.

Kindly note the following time frame for the project duration:

- Stakeholder engagement and consultation: 01 November 2019 02 December 2019
- Review of Environmental Impact Assessment Report: 03 December 2019 – 22 January 2020
- Submission of the Final EIA & EMP: 24 January 2020

Your input forms a key element of the process. If you consider yourself an I&AP for this proposed project, we urge you to make use of the opportunities created by the public participation process to provide comment, raise issues and concerns which affect and/or interest you or request further information. Please indicate which project your comments relate to by including the Project Reference Number: NW 30/5/1/1/2/12710 PR in your correspondence.

5



#### APPOINTED PUBLIC PARTICIPATION CONSULTANTS and APPLICANT:

Singo Consulting has been appointed as the independent Public Participation Consultants to undertake the PPP for the respective Prospecting Right Application for Niche Mining Resources 247 (Pty) Ltd

CONSULTANT:



Singo Consulting (Pty) Ltd

Office No. 16, First Floor (South Block), Corridor Hill Crossing, 9 Langa Crescent, Corridor Hill, eMalahleni (Witbank), 1040 Tel: 013 692 0041 Cel: 072-081-6682/078-2727-839 Fax: 086-514-4103 Email: kenneth@singoconsulting.co.za Email (Alt): <u>admin@singoconsulting.co.za</u>

APPLICANT:

Niche Mining Resources 247 (Pty) Ltd

South Downs Business Park Cnr John Voster and Nelmapius Street, Centurion, Pretoria, Gauteng, 0046. Cell: 063 156 7794 Email: mlozis@nichemining.co.za

### D3. NEWSPAPER ADVERT & PROOF OF PUBLISHING

#### Project Advert

#### JOINT NOTICE OF PUBLIC PARTCIPATION FOR PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORIZATION APPLICATIONS

Notice of the Prospecting Right Applications Process as per the Minerals and Petroleum Resources Development Act (Act 28 of 2002) for the purgose of prospecting **Manganese**, **Chrome & Nickel** resources in North West Province.

COMPANY	OMR REFERENCE	PARM NAME, PORTION & District	EAP	EAPs Contact defails
Niche Mining resources 247 (Ny) Ud	NW 30/3/1/1/3/12709 PR	oil portions of the form JondTontein 124 JG. under the Mogisteriol District of Rustenburg. North West Frovince	1	Uvhuweni Sigwedi 013 692 0041/ 078 6529 062 Ivhuwenitisingsponsulting.co.sg
Niche Mining resources 347 (Py) Lid	NW 30/3/1/1/2/12717 PR	Parm In-Die-Kam 345 JQ, Situated under the Mogisterial District of Sajanala, North West Province	,	Uvhuwoni Sigwodi 013 692 0041 / 078 6529 052 Ihhuwonitaineeconsultine.co.se
Niche Mining reaources 347 (Pty) Ltd	NW 30/5/1/1/2/ 12713 PR	All Fontions of the form Officialized A37 JQ, in the Mogisteriol District of Brits, North-West Province	2	Takalani <b>Seksenaba</b> 015 682 0041/022 767 4011 <u>takalan Beinggearsuting.co.ez</u>
Niche Mining resources 347 (Pty) Lid	N W30/3/1/1/2/13712 PR	Portions 01 & 02 of the Form Voolksubiaaste 117 JF	Z	Tokoloni <b>(skystobo</b> 013 682 0041/022 767 4011 <u>tokolon (Ésingpeonsulting, co. sz</u>
Niche Mining reacurces 247 (Fty) Ltd	NW 30/5/1/1/2/12710 PR	RE of portion 1, RE of portion 2, portions 3,4,5 and RE of the Form <b>Developeriods</b> , 143 KP	3	Rudzani Shenbani 078-348-1364/013 692 0041 Audzani@sincoconsuMna.co.pa

Registration as Interested & Affected Party: In terms of Regulations 42 & 43 of the BA Regulations published in Government Notice No. 326 of 07 April 2017, the public is invited to register as interested and affected parties (I&APs); express interest, comment and participate in the Public Participation Process (PPP) respectively within

30-oblendar days of publishing of this notices, until the 02<sup>rd</sup> of December 2019.

DBAR & EMPR Review: The draft EMPT reports will be available for review for a 30 days calendar period from Monday, the 02<sup>-44</sup> of December 2019 to Wednesday the 22 January 2020. The reports will be available on request, via Email from the respective EAPs.

ENVIRONMENTAL ASSESSMENT PRACTITIONER



Singo Consulting (Pty) Ltd

Office No. 14, First Floor, Combon Hill Crassing, 07 Longe Crassont, Combon Hill, eMalahieni,1033. Tell No.: 427 13 4720 641 Pax No.: 427 34 5146 103

Email: adminibiling consulting, course

APPLICANT

Niche Mining Resources 247 (Pty) Ltd South Downs Suthors Pork Cot John Votice and Voticeous Stract, Conturion, Protoria, Gautang, 2035. Col: 043 154 7774 Small: <u>microsofic nichemining, co.se</u>

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## Platinum Mark 2019's SHUTTERBUGS SNAP AV MADHATTER FUN RUN

Hawlenburg - A mathatter fair nan will delicous breaktast and otnike as well as 100 to heated for the limit tree this year at the stalls with unique dicor, gifts, food and much

Notices that will official sector, girls, not and more and an official sector, girls, not and more Rummers will start at 2:00 on Saturday 23. For more information, contact the event November at the Gentemberge Kint organises beits in 079. 503. 5307 and Rustenburg Wes on the contex of Kipper. Samantha in 002 415 2161, John us tar this and Zand Steat, Your entry with rocks a family can and ad a sittle colour and a whole fam and administration in the family start and add a sittle colour and a whole family and addition in the family start and add a sittle colour and a whole family and addition in the family start and addition of starty and the family start and starts. along the route, a goody long for the first 100 namers to complete their runs and loads of family fair afterwards. These will be an ölen run with an entry lee of

R60, 4km run for R40 and 2km run for R20.

The church premitees will open at 7.00. Also available at the overt is a latak with



JOINT NOTICE OF PUBLIC PARTCIPATION FOR PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORIZATION APPLICATIONS

Nation of the Prospecting Right Applications Process as par the Minurals and Publicition Resources Development Act Link 22 of 2002 for the purpose of prospecting Mangalene, Chrone & Hole measureain throft Weak Province.

COMPANY	IMP	Fores where PERFECTS & Chertel	ETS.	EAPs Contact density
Nicte-Mining resources 287 (Ptp) Ltd	WW 30/511/0 12106 PR	All particles of the farm Zandfostein 122 All under the Maginterial District of Rasterburg, Nurth Med Phoniage	1	Liviawani Sigwadi Iona nau down Iona nau down Ionawani@ Iningeconnating.co.co
Motor Mining Interaction 287 (Psp) Ltd	1979-757-6527 1927-95-098	Carro In Gin-Koon 241 Al, Dhuand under Ha Maginteria Darrier of Rejanata, North West Provider		Lohanner Rynadi Dri Hill Davi O'll Hill Davi Ditanesi Hillenseni Hillenseni
Note-Mining resources 387 (Pig) Lat	999 305 110 12113 PR	Al-Partians of the fatte, Zilkastones (21 J2, n The Ragisterial District of Brits, Nurth-Heal Parateur	3	Totalani Rokaando orta telo bövir olio: 107.4011 tel alani@cingocorna.ting on as
Niche Mining Instantion 207 (Phys.Let	WW 20/5/5/1/0 10712 PB	Partices II & El of the Carry Vesticeshitzagin 107 JP	9	Takalani Rakaweter (h1) 600 Blann (ki) 767 401 Takalani@kingoosonooffing (ki) 51
Nume Mining Instantion 267 (Fig) Los	NW 33579102 12712-09	RE of partices 1, RE of politics 2, partices 2,4,5 and RE of the Faces Teachingspectrosters 142 RP	3	Backani Bantan Gib 544 Gen Gib 555 Ebni hatang bagaanading ang

Begindention as interment & Affected Party: In summ of Requisitors 40.5.40 of the ESF Requisitors published in Observation Notice No. 125 of 12 April 2211, the public is invited to register an minimate and affected parties (MAPA), express minimat, convent and participars in the Public Participates (Process (PPP)) respectively within 35-calendar days of publishing of the indices, and the Public Participates (Process (PPP)) respectively within 35-calendar days of publishing of the indices. In the INP of December 2019. DEMA EMPR Rates. The draft EMP sectors will be maintain for review for a 30 days calendar period toor. Minutes, the 12P of December 2019 to the foreigning the 22 January 2020. The reports will be resultable on request, via areal from the respective EAPs.

ENVIRONMENTAL ASSESSMENT PRACTITIONER



Office No. 15, First Floor, Cantolar Hill Crossing, 39 Langa Crescent, Constor Hill, etilepairleni, 1055 Tel Nec. -27 15 6535 DH1 ( Pac No. -27 56 D144 105 ) Ensets admini@empcourtexting.co.us

APPLICANT

Note Many Resources 3/0" (Pty) (20) South Deem Rusiness Park Cer John Taske and Nahman Thesis, Contains, Photos, Dealang, 0046. Cell (00) 156 7754 (Cesalt Intechignationining or 24

THE (1) YOU CAN TRUST

#### p 09 SHUTTERBUGS SNAP AWAY

Rustenburg - The Rustanburg Photographic Society is a passionale and informative group of photographers. Their aim is to create and maintain an active and developing photographic presentativity.

The shab creates a platform where shutlerbugs can gain knowledge and develop their skills. Members have the opportunity to share their work net only locally but also internationally.

During their munitify meeting on



Color familian



Wednesday 16 October, the monthly winners worp announced.

Senior open category - Simon Flatcher with Poreof Parts

Junice span category - Itana Way with I C U

The society meets every third Wednesday of every mooth at the NG Protespark at 18:30. For more information contact club chairporson Simon Flatcher on 062 371 5667 or vice chairperson Ronel Broderick on 082 451 2019.





#### SUPER SATURDAY BASH AT EN RI **\_**O S



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## **D5. LANDOWNER NOTIFICATION**

#### LANDOWNER MEETING ARRANGEMENTS FOR PROPOSED PROSPECTING RIGHT AND E...



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za > Sent: Friday, 22 November 2019 09:54 To: 'mphomaphunye@ymail.com' <mphomaphunye@ymail.com>

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>; 'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za>; 'owen@singoconsulting.co.za' <owen@singoconsulting.co.za>; 'masindi@singoconsulting.co.za' <masindi@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za' <masindi@singoconsulting.co.za>; 'mutshidzi@singoconsulting.co.za' <matshidzi@singoconsulting.co.za>; 'mutshidzi@singoconsulting.co.za' <matshidzi@singoconsulting.co.za>; 'betty@singoconsulting.co.za' <betty@singoconsulting.co.za>; 'kefilwe@singoconsulting.co.za' <kefilwe@singoconsulting.co.za>; 'deshney@singoconsulting.co.za' <deshney@singoconsulting.co.za>; 'siyabonga@singoconsulting.co.za' <tendani@singoconsulting.co.za>; 'tendani@singoconsulting.co.za' <t

#### DEAR LANDOWNER

Singo Consulting (Pty) Ltd on behalf of **Niche Mining Resources 247 (Pty) Ltd**, hereby wish to inform you that it has submitted an application for a Prospecting Right together with an Environmental Authorization to the North West Department of Mineral Resources (DMR) for the proposed project of prospecting for **Manganese**, **Nickel and Chrome**, on the Farm **TWEEKOPPIESFONTEIN 143 KP ON RE OF PORTION 1, RE OF PORTION 2, PORTIONS 3,4,5 AND RE, situated within the Magisterial District of Madikwe**, **North west Province**.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of **Niche Mining Resources 247 (Pty) Ltd's** intention to obtain Prospecting Right for the above mentioned minerals.

This invitation is being extended to you as the landowner so that you can:

- Register as an I&APs and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;

• Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Plan report (EMPr)

**Singo Consulting (Pty) Ltd** has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan report. **For your participation kindly fill the comment form on the notification letter** attached and register your comments, issues, questions that you have about the proposed project. Kindly **see attached Background Information Document( BID)** for insight info of the project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

"As per our telecommunication throughout the week. Kindly note that this email also serve as a conformation that our meeting scheduled for Saturday (23 November 2019) is still on and at the suggested timeslot, which is (10hoo for 12hoo) at the farm (TWEEKOPPIESFONTEIN 143 KP ON RE OF PORTION 1, RE OF PORTION 2, PORTIONS 3,4,5 AND RE) to discuss the proceedings of the project and formally consult you as the landowner."

We are looking forward to having a productive meeting with you.

Kind Regards,



### **D6. LANDOWNER CORRESPONDENCE**

From: Rudzani Shonisani [mailto:rudzani@singoconsulting.co.za]
Sent: Wednesday, December 4, 2019 1:15 PM
To: 'Thabo Mogalane'
Cc: 'Lucas Phiri'; 'Mokoka, Tshotlego'; 'tmokoka7@gmail.com'; 'Kenneth, Singo'
Subject: RE: Prospecting Right Application by Singo Consulting & Niche Mining Resources Importance: High

Good day,

Thank you for your prompt responds. I will wait to hear from you in 2020 with regards to meeting arrangements.

Thank you once more for insight info.

Regards,



From: Thabo Mogalane [mailto:mogalanet@gmail.com]
Sent: Wednesday, December 4, 2019 12:27 PM
To: Rudzani Shonisani
Cc: Lucas Phiri; Mokoka, Tshotlego; tmokoka7@gmail.com
Subject: Re: Prospecting Right Application by Singo Consulting & Niche Mining Resources

Thank you for your email sent today the 4th December 2019 at 10:50.

Following our telephonic conversation regarding the contents of the email as referred to above, we advise as follows:

1. In view of the fact that members of Baphalane ba Sesobe CPA do not come from one village but from several villages, it's advisable that you access them through general meetings of the CPA not through the royal house as referred to in the email since the royal house route has a limitation of enabling you to access only one village instead of more or all.

2. The CPA Executive Committee is in the process of arranging a general meeting to be held in January 2020 and once all the arrangements have been finalised, you'll be informed of the date, venue and time so that you and your client can attend and address all the issues as raised in our commentary.

3. Mpho Maphunye is not a member of Baphalane ba Sesobe CPA Executive Committee.

Hoping that this will be in order with you.

Regards.

Thabo Mogalane General Secretary

#### Baphalane ba Sesobe CPA

On Wed, 4 Dec 2019 at 10:50, Rudzani Shonisani <<u>rudzani@singoconsulting.co.za</u>> wrote:

Good day Mr Thabo,

Thank you for your correspondence with regards to the prospecting right application on Tweekoppiesfontein 143 KP farm in respect to prospecting for manganese, chrome and nickel by Niche Mining (Pty) Ltd. You have been registered as an I&AP of the project.

Kindly not that at this stage, the processes that are being undertaken are for prospecting right application to be granted by the DMR which means that only issues pertaining drilling are involved and not mining. Should the drilling process result to viable commodity [chrome, manganese and nickel]; thus, a new process of consultations, conducting integrated Environmental Impact Assessment(EIA) and all relevant specialist studies will be done. As the BAPHALANE BA SESOBE COMMUNAL PROPERTY ASSOCIATION (landowners) of the Tweekoppiesfontein 143 KP farm, you will be engage with in all proceedings of the project.

We would like your assistance in arranging a community meeting for the project as we had already communicated with Miss Mpho Maphunye to assist with communicating with the royal house so we can be prepared for a meeting whereby all issues such as the once stated on your comment form can be addressed in full in the presence of the applicant who is our client.

Thank you and,

Kind Regards,



Attached please find a letter bearing Baphalane ba Sesobe Communal Property Association's comments on a Notice of Prospecting Right Application by Singo Consulting & Niche Mining Resources - DMR Ref: NW 30/5/1/1/2/12710PR.

Regards.

2. 105

Thabo Mogalane General Secretary Baphalane ba Sesobe CPA

LDMR1122019-2.pdf

317 KB

#### BAPHALANE BA SESOBE COMMUNAL PROPERTY ASSOCIATION



To: Singo Consulting (Pty) Ltd Attention: Miss Rudzani Shonisani From: Baphalane ba Sesobe CPA Date: 1<sup>st</sup> December 2019

#### Subject: PROSPECTING RIGHT APPLICATION BY SINGO CONSULTING & NICHE MINING RESOURCES - DMR REF: NW 30/5/1/1/2/12710PR

Baphalane ba Sesobe Communal Property Association (CPA) has taken note of the prospecting right application by Singo Consulting & Niche Mining Resources on Tweekoppiesfontein 143KP – DMR Ref: NW 30/5/1/1/2/12710PR.

Being surface rights holders in this farm, Baphalane ba Sesobe CPA hereby submits the following comments on the prospecting right application as mentioned above:

- 1. We would like to caution that:
  - The farm is a sensitive farm because in terms of the farm plan, it is earmarked for ecotourism & conservation;
  - 1.2 Already its 800 hectares are a game farm in partnership;
  - Phase 2 of the game farming model, which is a remainder of Tweekoppiesfontein 143kp, has been placed on hold;
  - 1.4 The remaining portions 2 & 3 were also earmarked for wildlife farming but the project is not yet implemented which leaves a limited opportunity for mining under certain conditions. These conditions are as follows:
    - 1.4.1 Baphalane ba Sesobe CPA be joined in the mining activities;
    - 1.4.2 All the general labour work be done by Baphalane ba Sesobe;
    - 1.4.3 Baphalane ba Sesobe be trained as miners;
    - 1.4.4 No permanent structures should be erected in order to allow for ease of rehabilitation at the end of the mining activity;
    - 1.4.5 Baphalane ba Sesobe CPA's shareholding to be in line with the mining charter or better;
    - 1.4.6 Baphalane ba Sesobe to tender for business opportunities that may arise from the mining activity.
- We advise that the farm is in the Ramotshere Moiloa Local Municipality, Zeerust, not in the magisterial district of Madikwe.

Esecutive Committee: Chairperson – Lucas Phiri; Vice-chairperson – Tshotlego Mokoka; General Secretary – Thabo Mogalane; Deputy General Secretary – Mosebo Matlhatsi; Treasurer – Gregory Moatshe; Additional Members: Malapi Moatshe; Kgonicteile Mokoka; Peter Mothulos; Phallo Mokoka; Letshaku Moatshe; George Moatshe; Vincent Mogale; Mpho Dimpane; Katlholo Diale; Lesego Mogapi

Hoping that this will be in order with you and looking forward to fruitful engagements on this matter.

Regards.

Yours sincerely

Ata

THABO MOGALANE General Secretary Baphalane ba Sesobe CPA

Evecutive Committee: Chairperson – Lucas Phiri, Vico-chairperson – Tshotlego Mokoka, General Secretary – Thabo Mogalane, Deputy General Secretary – Mosebo Mathatri, Troasarer – Gregory Moatshe, Additional Members: Malapi Mostohe, Kgosietzile Mokoka; Peter Mohraloe, Phallo Mokoka; Letohaku Moatshe, George Moatshe, Vincent Mogale, Myho Dempana, Katholo Diale, Lesego Mogapi

## MEETING WITH THE LANDOWNER (MR S L MAPHONYA UNER; BAPHALANE BA SESOBE COMMUNAL PROPERTY ASSOCIATION) & CONSULTING FIRM (SINGO CONSULTING)

Date: 23 November 2019

Time:12:00 PM

**Venue:** Tweekoppiesfontein 143 KP farm boundary and later at approximately 15km garage station.

Attendee: (Refer to Attendance Register)

#### Client: MGB MINING AND INDUSTRIAL SUPPLIERS (PTY) LTD

Apologies: Other Members of Baphalane Ba Sesobe Communal Property Association

#### <u>AGENDA:</u>

Project discussion and knowing when were the rights issued or granted to the applicant (Niche Mining Resources 247 (Pty) Ltd).

#### Matter of the day:

#### Presentation done by Ms Shonisani Rudzani

Introducing the consulting firm to the landowner was done and he was with his daughter ( assistance, Mpho Maphonya). He was informed about the project proceedings and that winded search results which did not show anything pertaining who the landowners are. An introduction of other team members from the consulting firm who were available was made.

Questions and Answers				
Issue raised/ Comments	Response	Actions		
Miss Mpho Maphonya: where did you advertise the project and where site notices plugged around?	Miss Rudzani Shonisani: thank you for agreeing to meet us and contacting us. We were not able to get hold of you or see who the landowners are through the deed search. We came on the 29 <sup>th</sup> of October 2019 for site notices plugging and there after communicated with Riaan who is based on the northern side of the proposed farm boundary, conducting various research projects for various universities with different species that are available on the area.	Miss Mpho Maphnonya: Mr Riaan is Leasing on our property, we know him.		
Miss Mpho Maphonya: did you consult the landowner?	Miss Rudzani Shonisani: a landowner consultation was attempted through winded search and also through a site visit that was conducted on the 29 <sup>th</sup> of October 2019. From both attempts it was not a success as the deed search showed no names and also on site, cell numbers were obtained from a cattle tender for Mr Titus Siloro Disang( 071 917 1242) but they were on voicemail	Miss Mpho Maphonya: Okay. My father together with other Members of Baphalane Ba Sesobe Communal Property Association are the landowners. I will have to look up to the matter to see what might have happened with the deed not showing the ownership of Baphalane Ba Sesobe Communal Property Association.		

Miss Mpho Maphonya: Where you able to drive as far as the village side in Molatedi?		will communicate with the		
Way Forward				
A community meeting will be arranged and communicated with the EAP.				
End-of-Minutes				

## 1. Attendance Register:

	C			)	
D CONSULTING (Phy) Ltd Ing venue: TWEEDPRESONIEIN 1 22 - November 2019 1260	skp				
		ATTENDANCE R	EGISTER		
Name & Surname	Designation	Company/LandOwner/ Other(Specify)	Contact Details	Email Address	Signature
Livhumani (Sunad) Singo Tarlani Sumon Maphinga Noto Maphinga Richary Shanisani	Consultant Scipty Office Community Connects Hike	Suna landuding Sing Consulting Se as bet Sessible Sessible	065 993 9006 1072 419473 5 0 824 81110 91	ScoBe Village Mahomanhunica ymail. 6m	1the
	ng venue: Twillipp BSonkin Id RZ - November Dolg IZhoo Name & Surname Livhumoni Sunnadi Singer Tordani Singer Maghinga Molo Maghunga	ng venue: TWEEROPP ESONE in 148 KP R2 - Novembel DOL9 Jahoo Name & Surname Lyhawani Survey Consultant Simon Maphingo Consultant Simon Maphingo Consultant	ng venue: TWEEROPPESONEIN 14869 R2 - November Dolg Dahoo ATTENDANCE RI Company/LandOwer/ Other(Specify) Livhuwani Superal: Consultant Superior Simon Markinga Simon Markinga Simon Markinga Simon Markinga	ng venue: TWEEROPPETONEIN 14869 R2 - November Dolg Dahoo ATTENDANCE REGISTER Company/LandOwner/ Other(Specify), Contact Details Contact	ng venue: TWEEROPP ESONE IN 14360 R22 - November 2019 R23 - November 2019 R23 - November 2019 Rame & Surname Designation Company/LandOwner/ Other(Specify) Contact Details Email Address Lyhawani Company/LandOwner/ Designation Other(Specify) Contact Details Email Address Lyhawani Company/LandOwner/ Science Maphing Consultant Constant of the Construction Const Science Maphing Construction Const

## 2. Proof of Appendices



Land Occupier Correspondence

From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>
Sent: Wednesday, 20 November 2019 09:10
To: 'riaan@acjsafaris.co.za' <riaan@acjsafaris.co.za>
Cc: 'kenneth@singoconsulting.co.za' <kenneth@singoconsulting.co.za>
Subject: RE: SGQ100444.019.13KD SINGO CONSULTING - TWEEKOPPIESFONTEIN PROSPECTING NOTICE

Importance: High

Good day,

Thank you for your prompt responds. Kindly note that you have been registered as an interested of affected party of the project and your concerns or comments will be included on the BAR. We are appreciative of the local knowledge you have shared with us and upon accomplishing of the draft BAR which will be sent to you during the review period (03 December 2019-22 January 2020), note that if according to the studies, the area is protected, thus a recommendation will be made on the bar for the client not to conduct any activities on the area.

I hope the above is in order.

Kind Regards,



-----Original Message-----From: Peggy da Conceicao <<u>Peggy@dieselelectricservices.co.za</u>> Sent: Wednesday, 06 November 2019 10:15 To: <u>admin@singoconsulting.co.za</u> Cc: <u>riaan@acjsafaris.co.za</u> Subject: SGQ100444.019.11PV SINGO CONSULTING - TWEEKOPPIESFONTEIN PROSPECTING NOTICE

Good day

For the attention of: Rudzani Shonisani

Attached please find documentation for your perusal from Peggy da Conceicao \* SGQ100444.019.11PV SINGO CONSULTING - TWEEKOPPIESFONTEIN PROSPECTING NOTICE

Kind Regards Peggy da Conceicao Tel: +27 11 493 7079

# TWEEKOPPIESFONTEIN RESEARCH RANCH NPC

Company Reg No 2006/033807/08

VAT Reg No 4890190723

P.O. BOX 5102 Weltevreden Park 1712 Tel. No. (011) 493-7079 Faπ No. (011) 493-7226 27/29 Mewett Street Ophirton 2091

## EMAIL MESSAGE

To:	SENGO CONSULTENG (PTY) LTD	Att:	Rudzani Shonisani	
Email:	admin@singoconsulting co.za	Date:	06 November 2019	
Phone: 013 692 0041		Pages: 1 Incl Cover		
Ref No	: SGQ100444.019.11/KD	From	Peggy da Conceicao_	

RE: TWEEKOPPIESFONTEIN PROSPECTING NOTICE

Good day,

With reference to the Prospecting notice that we received form your offices, please can you confirm if you intend prospecting North of the gravel road, that goes through the property from East to West?

Regards

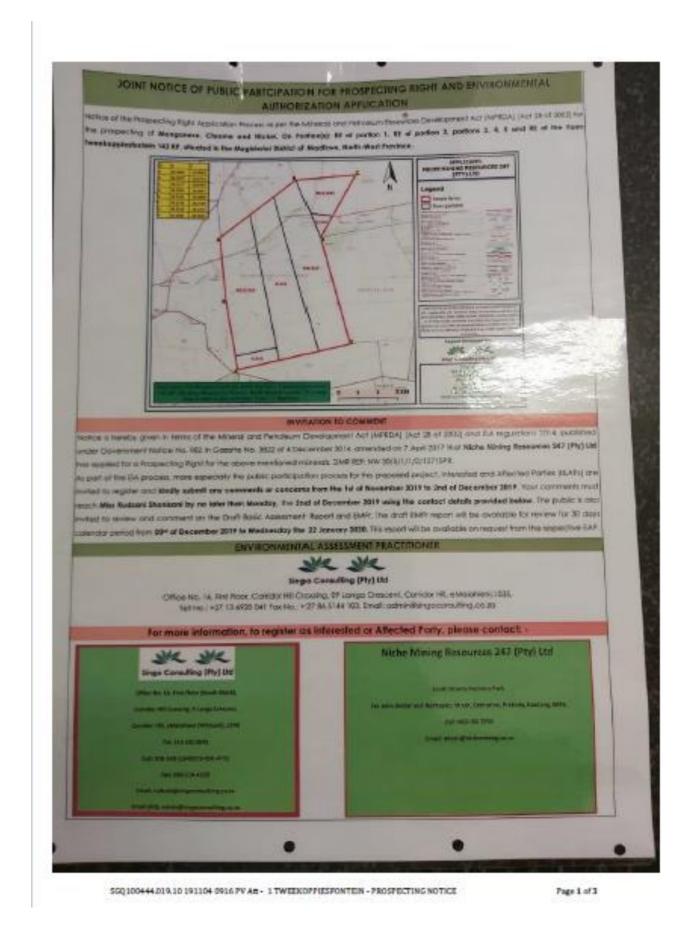
#### PEGGY DA CONCEICAO

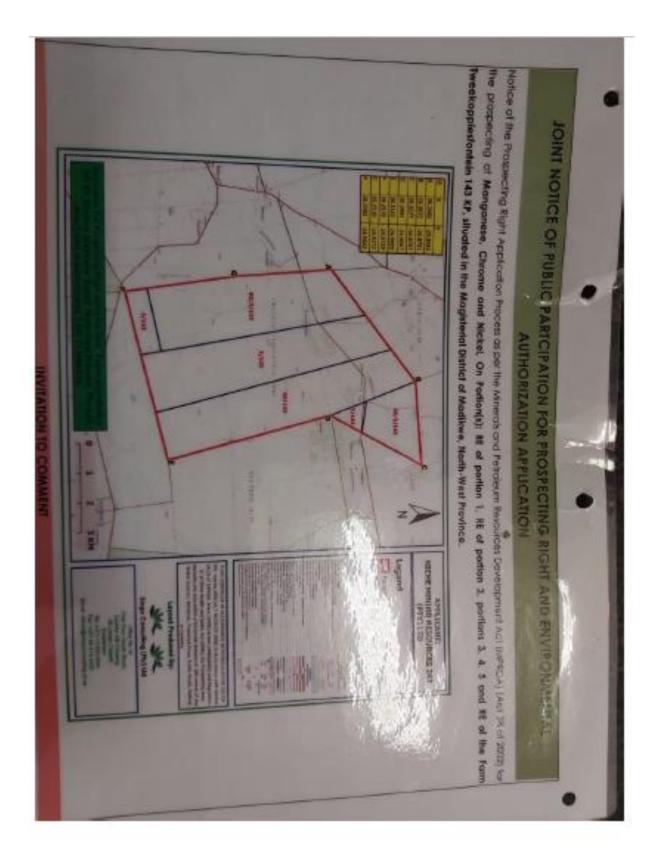
e ås o.e

cc Risan van Renzburg

ninnillacizatariz.co.za

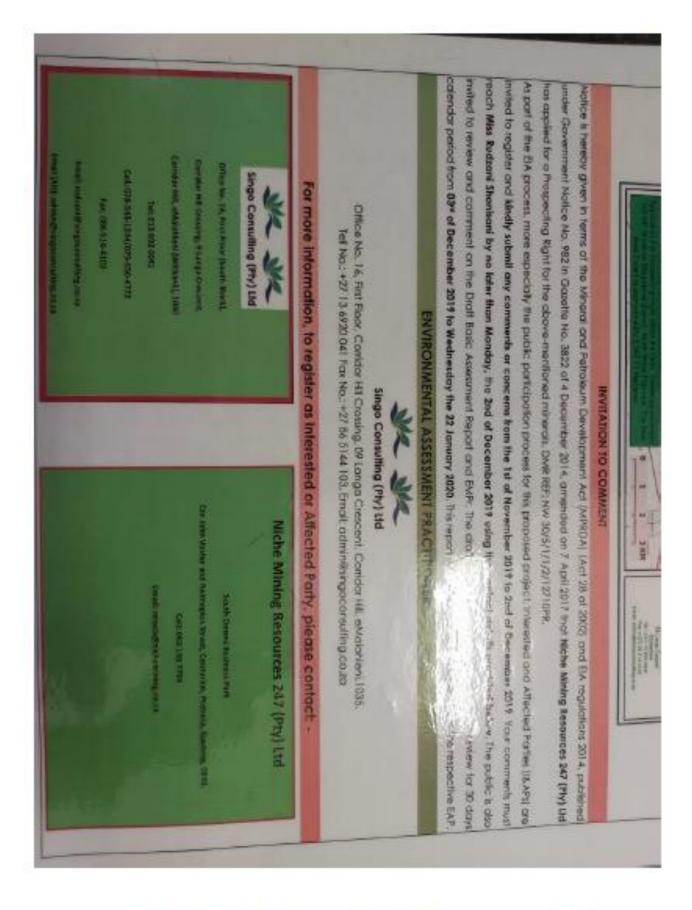
SGQ 100444.019.11 PV SINGO CONSULTING - TWEEKOP PLESPONTEIN PROSPECTING NOTICE 1 11/6/2019 10:09 AM Page 1 of





Page 2 of 3

SEQ100444.019.10 191104 0916 PV Am - 1 TWEEKOPPIESPONTEIN - PROSPECTING NOTICE



Page 3 of 3

SGQ 100444.019.10.191104 0916 FV Am - 1 TWEEKOPPLESPONTEIN - PROSPECTING NOTICE

-----Original Message-----From: Rudzani Shonisani [mailto:rudzani@singoconsulting.co.za] Sent: Thursday, November 7, 2019 10:11 AM To: 'peggy@dieselelectricservices.co.za'; 'riaan@acjsafaris.co.za' Cc: 'Kenneth, Singo'; 'livhuwani@singoconsulting.co.za'; 'takalani@singoconsulting.co.za' Subject: SGQ100444.019.11PV SINGO CONSULTING - TWEEKOPPIESFONTEIN PROSPECTING NOTICE

## Good day,

Kindly note that you have been registered as an interested and affected party and we appreciate your comment with regards to the prospecting right application lodged at Northwest DMR for prospecting of Manganese, Chrome & Nickel, on the Farm: TWEEKOPPIESFONTEIN 143 KP ON RE OF PORTION 1, RE OF PORTION 2, PORTIONS 3,4,5 AND RE, situated within the Moses Kotane Local Municipality under Magisterial District of Madikwe, North-West Province.

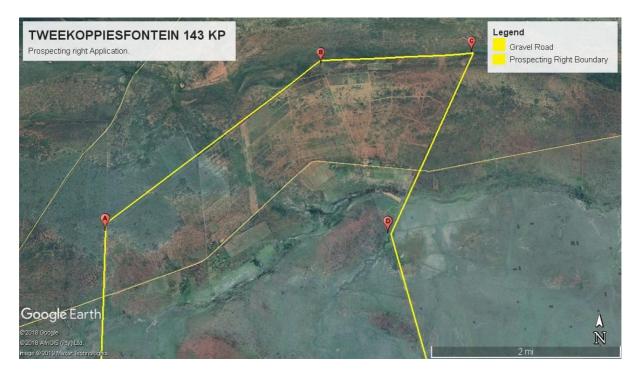
The prospecting action is planned to take place on the boundary of the area applied as shown on the attached Google earth view map and to respond to your question; yes, the initial plan is to prospects also on the northern side of the gravel road as covered by the prospecting right application.

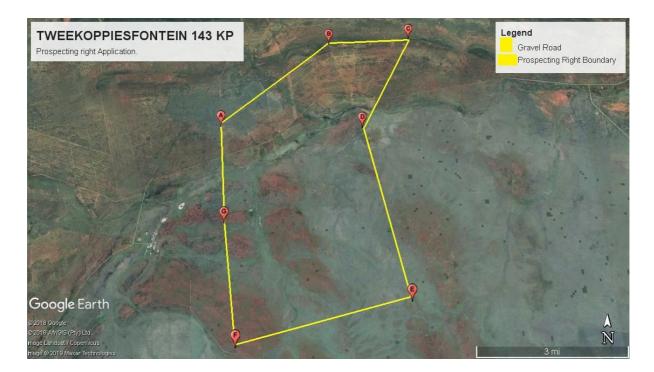
However, if ever there is restrictions, or the area in assigned for other activities or it's sensitive, thus it will be buffered out and no activities will take place there.

Kindly find attached Google earth view, which shows the area in question. One is zoomed to the point of the question towards the north and another showing the whole applied prospecting right area.

I hope I have answered your question, if not then I am most willing to communicate with you telephonically.

Kind Regards, Rudzani Shonisani





From: Kevin Donaldson <<u>kevin@dieselelectricservices.co.za</u>>
Sent: Tuesday, 19 November 2019 14:14
To: admin@singoconsulting.co.za
Cc: ACJ Safaris, Riaan van Rensburg <<u>riaan@acjsafaris.co.za</u>>
Subject: SGQ100444.019.13KD SINGO CONSULTING - TWEEKOPPIESFONTEIN PROSPECTING NOTICE

Good day

Attached please find documentation for your perusal from Kevin Donaldson.

<u>SGQ100444.019.13KD SINGO CONSULTING - TWEEKOPPIESFONTEIN PROSPECTING</u>
 <u>NOTICE</u>

Kind Regards

### Peggy da Conceicao

**Contracts Department** 



**Continuously Generating Fresh Ideas!!** 

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## TWEEKOPPIESFONTEIN RESEARCH RANCH NPC

Company Reg No 2006/033807/08

VAT Reg No 4890190723

P.O. BOX 5102 Weltevreden Park 1712 Tel. No. (011) 493-7079 Fan No. (011) 493-7226 27/29 Mewett Street Ophirton 2091

### EMAIL MESSAGE

To:	SINGO CONSULTING (PTY) LTD	Att:	Rudzani Shonisani
Emai	l: admin@singoconsulting.co.za	Date:	19 November 2019
Phon	e: 013 692 0041	Pages	a 2 Inc. Cover
Ref N	e: SGQ100444.019.13/KD	From	: Kevin Donaldson_

RE: TWEEKOPPIESFONTEIN PROSPECTING NOTICE

#### Good day,

Thank you for the prompt response to our question. The section north of the sand road and the full area of Portion 1 (A) and (B) catchment area, Tweekoppiesfontein 143 KP are registered as a non-profit company's research area, namely, Tweekoppiesfontein Research Ranch NPC, Registration number 2006/033807/08, VAT number 4890190723.

#### The research projects are:

- i) Brucella Abortus in wild game buffalo
- ii) Brucella Melitensis in wild game buffalo
- iii) Captive / intensive breeding of White Rhino
- iv) Captive / intensive breeding of Black Rhino
- v) Electronic detection of pathogens in mammals

SEQ 100444 019.13 KD SINGO CONSULTING - TWEEKOPPIESPONTEIN PROSPECTING NOTICE Page 1 of 2 11/19/2019 2:10 PM

This entire research project is of a "sensitive" nature and would be detrimentally affected by any prospecting activities. This research area is used by multiple interested parties, including Pretoria University via student participation up to Doctorate level.

How do we go about ensuring that this area is excluded from Prospecting / Mining?

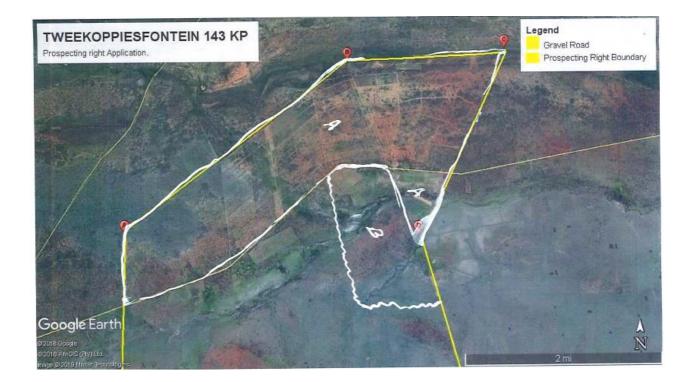
Regards

## KEVIN DONALDSON

e & o.e cc Risan van Rensburg

inan@acizafaniz.co.za

SGQ100444.019.13 KD SINGO CONSULTING - TWEEKOPPIESPONTEIN PROSPECTING NOTICE Page 2 of 2 11/19/2019 2:10 PM



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>
Sent: Wednesday, 20 November 2019 09:10
To: 'riaan@acjsafaris.co.za' <riaan@acjsafaris.co.za>
Cc: 'kenneth@singoconsulting.co.za' <kenneth@singoconsulting.co.za>
Subject: RE: SGQ100444.019.13KD SINGO CONSULTING - TWEEKOPPIESFONTEIN PROSPECTING NOTICE
Importance: High

Good day,

Thank you for your prompt responds. Kindly note that you have been registered as an interested of affected party of the project and your concerns or comments will be included on the BAR. We are appreciative of the local knowledge you have shared with us and upon accomplishing of the draft BAR which will be sent to you during the review period (03 December 2019-22 January 2020), note that if according to the studies, the area is protected, thus a recommendation will be made on the bar for the client not to conduct any activities on the area.

I hope the above is in order.

Kind Regards,



From: Peggy da Conceicao <<u>Peggy@dieselelectricservices.co.za</u>>
Sent: Tuesday, 26 November 2019 14:11
To: admin@singoconsulting.co.za
Cc: ACJ Safaris, Riaan van Rensburg <<u>riaan@acjsafaris.co.za</u>>
Subject: SGQ100444.019.13 KD SINGO CONSULTING - TWEEKOPPIESFONTEIN PROSPECTING NOTICE

#### Good day,

With reference to the correspondence **Sent:** Tuesday, 19 November 2019 2:12 PM, please acknowledge receipt thereof and confirm when we can expect a response.

We look forward to your affirmative reply.

Please do not hesitate to contact the undersigned should you require any further information.

Kind Regards

#### Peggy da Conceicao Contracts Department

DIESEL ELECTRIC	Tel	+27 11 493 7079
DIESEL ELECTRIC	Cell	Undisclosed
	Fax	+27 11 493 0282
	Address	27/29 Mewett Street, Ophirton
L	Email	peggy@dieselelectricservices.co.za
SERVICES	Web	www.dieselelectricservices.co.za



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From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>
Sent: Tuesday, 26 November 2019 16:14
To: 'Peggy@dieselelectricservices.co.za' <Peggy@dieselelectricservices.co.za>;
'kevin@dieselelectricservices.co.z' <kevin@dieselelectricservices.co.z>
Cc: 'kenneth@singoconsulting.co.za' <kenneth@singoconsulting.co.za>; 'riaan@acjsafaris.co.za'
<ri><riaan@acjsafaris.co.za>
Subject: RE: SGQ100444.019.13KD SINGO CONSULTING - TWEEKOPPIESFONTEIN PROSPECTING NOTICE
Importance: High

Good day,

Kindly note that I had sent my respond over to Riaan's email address as attached on this email below. Please note that we made a site visit on Saturday the 23<sup>rd</sup> of November 2019 and came through to your premises, however we could not get hold of you even after several attempts of calling. See attached image of the contacts details used.

Please note that we would like to find out as well if ever you have documents which confirms your activities and also ownership on the area as it will be useful when we recommend buffering out where you are currently having activities.

tweekoppiesfontein Portion One Kappie van Rensburg 078 877 720 OO HUAWEI PBD  $\cap \cap$ 

I hope the above is in order and thank you.

Regards,



## ADJACENT LAND OCCUPIERS

From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>

Sent: Friday, 01 November 2019 10:33

To: 'info@afarak.com' <info@afarak.com>

**Cc:** 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'masindi@singoconsulting.co.za'

<masindi@singoconsulting.co.za>; 'owen@singoconsulting.co.za' <owen@singoconsulting.co.za>;

'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>;

'mutshidzi@singoconsulting.co.za' <mutshidzi@singoconsulting.co.za>;

'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za>;

'anthony@singoconsulting.co.za' <anthony@singoconsulting.co.za>;

'siyabonga@singoconsulting.co.za' <siyabonga@singoconsulting.co.za>;

'tendani@singoconsulting.co.za' <tendani@singoconsulting.co.za>

# **Subject:** INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of Niche Mining resources 247 (Pty) Ltd, hereby wish to inform you that it has submitted an application for a Prospecting Right together with an Environmental Authorization to the North west Department of Mineral Resources (DMR) for the proposed project of prospecting for Manganese, Chrome & Nickel, on the Farm: TWEEKOPPIESFONTEIN 143 KP ON RE OF PORTION 1, RE OF PORTION 2, PORTIONS 3,4,5 AND RE, situated within the Moses Kotane Local Municipality under Magisterial District of Madikwe, North-West Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of Niche Mining resources 247 (Pty) Ltd's intention to obtain Prospecting Right for the above mentioned minerals.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socioeconomic development, or instead might be affected by the prospecting activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;

• Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

**Singo Consulting (Pty) Ltd** has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced and for your participation, kindly fill the comment form attached as part of this email and register your comments, issues, questions that you have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached map, Comment form and Background Information Document (BID) for detailed description of the proposed project and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>
Sent: Friday, 08 November 2019 10:15
To: 'omolefe@afarak.co.za' <omolefe@afarak.co.za>
Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'masindi@singoconsulting.co.za'
<masindi@singoconsulting.co.za>; 'owen@singoconsulting.co.za' <owen@singoconsulting.co.za>; 'livhuwani@singoconsulting.co.za>; 'livhuwani@singoconsulting.co.za>; 'mutshidzi@singoconsulting.co.za' <mutshidzi@singoconsulting.co.za' <mutshidzi@singoconsulting.co.za>; 'mutshidzi@singoconsulting.co.za' <mutshidzi@singoconsulting.co.za>; 'nokuthula@singoconsulting.co.za>; 'nokuthula@singoconsulting.co.za' <nokuthula@singoconsulting.co.za>; 'anthony@singoconsulting.co.za' <ahnbox{anthony@singoconsulting.co.za>; 'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za>; 'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za>; 'takalani@singoconsulting.co.za>; 'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za>; 'takalani@singoconsulting.co.za>; 'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za>; 'takalani@singoconsulting.co.za>; 'takalani@singoconsulting.co.za>;

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This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socioeconomic development, or instead might be affected by the prospecting activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;

• Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

**Singo Consulting (Pty) Ltd** has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced and for your participation, kindly fill the comment form attached as part of this email and register your comments, issues, questions that you have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached map, Comment form and Background Information Document (BID) for detailed description of the proposed project and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Kind regards



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za> Sent: Wednesday, 27 November 2019 10:00 To: 'Moremi Keabetswe' <mkeabetswe@nwpb.org.za> Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>; 'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za>; 'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za>; 'tmanda@nwpb.org.za' <tmanda@nwpb.org.za>; 'madikweadmin@nwpb.org.za' <madikweadmin@nwpb.org.za> Subject: RE: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD. Importance: High

Good day,

Thank you for your prompt responds. Kindly note that Singo Consulting has registered you as an interested and/or affected party of the project.

A draft report will be shared with you for review and commenting. If ever a meeting is required after draft review period or during draft review period, then it will be arranged.

Kind Regards,



From: Moremi Keabetswe <<u>mkeabetswe@nwpb.org.za</u>>

Sent: Monday, 25 November 2019 14:29

To: rudzani@singoconsulting.co.za

Cc: 'Kenneth, Singo' <<u>kenneth@singoconsulting.co.za</u>; <u>livhuwani@singoconsulting.co.za</u>; <u>takalani@singoconsulting.co.za</u>; <u>tmanda@nwpb.org.za</u>; <u>madikweadmin@nwpb.org.za</u> Subject: RE: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

Hi Rudzani

Please find our attached registrations

Singo Consulting (Pty) Ltd	Office No: 14, fiel Poor (pount food) Contex No Dopung, (N Longo Castorni Cantas No: Troubless No: 127 X 422 Mo2 - 52 43 492 0041 Fee: 127 No: 224 102 Final: Editoria/Second Strategies
REGISTRATION & C	OMMENT SHEET
Athention: Livhuwoni Sigwadi	Ernal: Inhowani@singoconsulting.co.60
Ittle         My Name         Pictor           Company         Laft         Writt         Riv           Designation         Actors         Herict         Cov           Actorss         P         Cov         Ecc         Cov           E-mail         Apple A: provide: (or 2%)         Interfactions be implemented and the implemented and	Simonel Rel Servertern Munskertke 2745 FarNo. CeliNo. 0836548455 ikwith Post D E-mali:
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Thanks

Moremi

# AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD. Importance: High

### Good day,

## Kindly see attached email correspondence I have been having with your colleagues. Note that no responds have been received thus far.

Singo Consulting (Pty) Ltd on behalf of Niche Mining resources 247 (Pty) Ltd, hereby wish to inform you that it has submitted an application for a Prospecting Right together with an Environmental Authorization to the North west Department of Mineral Resources (DMR) for the proposed project of prospecting for Manganese, Chrome & Nickel, on the Farm: TWEEKOPPIESFONTEIN 143 KP ON RE OF PORTION 1, RE OF PORTION 2, PORTIONS 3,4,5 AND RE, situated within the Moses Kotane Local Municipality under Magisterial District of Madikwe, North-West Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of Niche Mining resources 247 (Pty) Ltd's intention to obtain Prospecting Right for the above mentioned minerals.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socioeconomic development, or instead might be affected by the prospecting activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;

• Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced and for your participation, kindly fill the comment form attached as part of this email and register your comments, issues, questions that you have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached map, Comment form and Background Information Document (BID) for detailed description of the proposed project and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Kind regards



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za> Sent: Friday, 08 November 2019 10:27 To: 'tmanda@nwpb.org.za' <<u>tmanda@nwpb.org.za</u>> Cc: 'madikweadmin@nwpb.org.za' <<u>madikweadmin@nwpb.org.za</u>>; 'livhuwani@singoconsulting.co.za' <<u>livhuwani@singoconsulting.co.za</u>>; 'takalani@singoconsulting.co.za' <<u>takalani@singoconsulting.co.za</u>>; Subject: FW: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD. Importance: High

Good day,

Kindly note the email below. I had taken a wrong email address through our telecommunication.

Apologies for my mistake.

Regards,



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za> Sent: Friday, 08 November 2019 10:13 To: 'madikweadmin@nwpd.org.za' <<u>madikweadmin@nwpd.org.za</u>> Cc: 'Kenneth, Singo' <<u>kenneth@singoconsulting.co.za</u>>; 'masindi@singoconsulting.co.za' <<u>masindi@singoconsulting.co.za</u>>; 'owen@singoconsulting.co.za' <<u>owen@singoconsulting.co.za</u>>; 'livhuwani@singoconsulting.co.za' <<u>livhuwani@singoconsulting.co.za</u>>; 'nokuthula@singoconsulting.co.za' <<u>nokuthula@singoconsulting.co.za</u>>; 'takalani@singoconsulting.co.za' <<u>takalani@singoconsulting.co.za</u>>; 'tendani@singoconsulting.co.za' <<u>tendani@singoconsulting.co.za</u>>; 'mutshidzi@singoconsulting.co.za' <<u>tendani@singoconsulting.co.za</u>>; 'mutshidzi@singoconsulting.co.za' <<u>mutshidzi@singoconsulting.co.za</u>>; 'anthony@singoconsulting.co.za' <<u>anthony@singoconsulting.co.za</u>> Subject: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD. Importance: High

Attention: Mr. Thomas

### Good day,

I hope this email finds you well.

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#### Kind regards

## **D7: CORRESPONDANCE WITH STAKEHOLDERS**

From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za> Sent: Friday, 01 November 2019 09:13 To: 'pietjlsmit@gmail.com' <pietjlsmit@gmail.com> Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'masindi@singoconsulting.co.za' <masindi@singoconsulting.co.za; 'owen@singoconsulting.co.za' <owen@singoconsulting.co.za; 'nokuthula@singoconsulting.co.za' <nokuthula@singoconsulting.co.za>; 'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za>; 'mutshidzi@singoconsulting.co.za' <mutshidzi@singoconsulting.co.za>; 'tendani@singoconsulting.co.za' <tendani@singoconsulting.co.za>; 'siyabonga@singoconsulting.co.za' <siyabonga@singoconsulting.co.za>; 'abel@singoconsulting.co.za' <abel@singoconsulting.co.za>; 'boipelo@singoconsulting.co.za' <boipelo@singoconsulting.co.za>; 'anthony@singoconsulting.co.za' <anthony@singoconsulting.co.za>; 'deshney@singoconsulting.co.za' <deshney@singoconsulting.co.za>; 'betty@singoconsulting.co.za' <betty@singoconsulting.co.za>; 'kefilwe@singoconsulting.co.za' <kefilwe@singoconsulting.co.za>; 'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za> Subject: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

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Kind regards



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>

**Sent:** Friday, 01 November 2019 09:28

**To:** 'marlize@agrinw.co.za' <marlize@agrinw.co.za>

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'masindi@singoconsulting.co.za'

<masindi@singoconsulting.co.za>; 'owen@singoconsulting.co.za' <owen@singoconsulting.co.za>;

'nokuthula@singoconsulting.co.za' <nokuthula@singoconsulting.co.za>;

'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>;

'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za>;

'mutshidzi@singoconsulting.co.za' <mutshidzi@singoconsulting.co.za>;

'siyabonga@singoconsulting.co.za' <siyabonga@singoconsulting.co.za>;

'tendani@singoconsulting.co.za' <tendani@singoconsulting.co.za>; 'abel@singoconsulting.co.za'

<abel@singoconsulting.co.za>; 'anthony@singoconsulting.co.za' <anthony@singoconsulting.co.za>; 'deshney@singoconsulting.co.za' <deshney@singoconsulting.co.za>;

'boipelo@singoconsulting.co.za' <boipelo@singoconsulting.co.za>

**Subject:** INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

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Kind regards



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>

**Sent:** Friday, 01 November 2019 09:32

To: 'smunzhedzi@environment.gov.za' <smunzhedzi@environment.gov.za>

**Cc:** 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'masindi@singoconsulting.co.za'

<masindi@singoconsulting.co.za>; 'owen@singoconsulting.co.za' <owen@singoconsulting.co.za>;

'nokuthula@singoconsulting.co.za' <nokuthula@singoconsulting.co.za>;

'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>;

'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za>;

'mutshidzi@singoconsulting.co.za' <mutshidzi@singoconsulting.co.za>;

'siyabonga@singoconsulting.co.za' <siyabonga@singoconsulting.co.za>;

'tendani@singoconsulting.co.za' <tendani@singoconsulting.co.za>; 'abel@singoconsulting.co.za' <abel@singoconsulting.co.za>; 'anthony@singoconsulting.co.za' <anthony@singoconsulting.co.za>; 'deshney@singoconsulting.co.za' <deshney@singoconsulting.co.za>;

'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za>

**Subject:** INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

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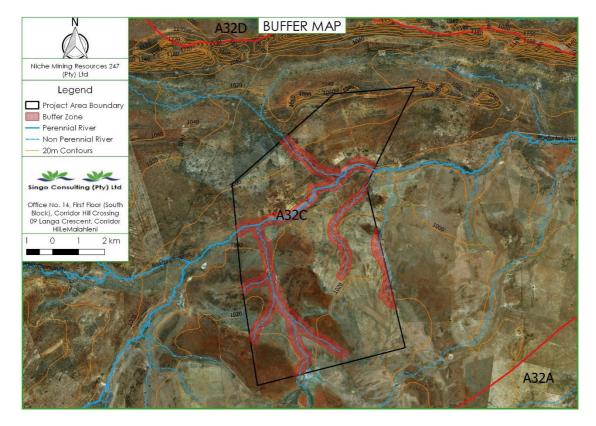
Kind regards



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>
Sent: Tuesday, 19 November 2019 14:07
To: 'Ackerman Pieter' <AckermanP@dws.gov.za>
Cc: 'kenneth@singoconsulting.co.za' <kenneth@singoconsulting.co.za>;
'anthony@singoconsulting.co.za' <ahthony@singoconsulting.co.za>;
'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>;
'owen@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>;
'owen@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>;
'owen@singoconsulting.co.za' <ohereforemediate</p>
Ctakalani@singoconsulting.co.za>;
'takalani@singoconsulting.co.za';
'takalani@singoconsulting.co.za>;
'takalani@singoconsulting.co.za>;
'takalani@singoconsulting.co.za';
'takalani@singoconsulting.co.za';
'takalani@singoconsulting.co.za';
'takalani@singoconsulting.co.za;
'sithabile@singoconsulting.co.za'
Subject: RE: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND
ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

Good day,

Kindly find the attached buffer map as per our correspondence.



Kind Regards,



From: Ackerman Pieter <<u>AckermanP@dws.gov.za</u>> Sent: Friday, 01 November 2019 11:39 To: <u>rudzani@singoconsulting.co.za</u> Subject: RE: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

100%

From: <u>rudzani@singoconsulting.co.za</u> [mailto:rudzani@singoconsulting.co.za] Sent: 01 November 2019 11:29 AM To: Ackerman Pieter; <u>theunissec@dws.gov.za</u>; Ramashala Lethabo (HBP); Enoch Candace Cc: 'Kenneth, Singo'; <u>masindi@singoconsulting.co.za</u>; <u>owen@singoconsulting.co.za</u>; nokuthula@singoconsulting.co.za; livhuwani@singoconsulting.co.za; sithabile@singoconsulting.co.za; mutshidzi@singoconsulting.co.za; siyabonga@singoconsulting.co.za; tendani@singoconsulting.co.za; abel@singoconsulting.co.za; anthony@singoconsulting.co.za; takalani@singoconsulting.co.za Subject: RE: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

Good day Mr Ackerman,

Thank you for your prompt responds. Your recommendations shall be implemented, and a buffer map will be produced to ensure that no waterbodies are negatively impacted. Kindly note that a draft report shall be sent to your office upon commencement of review so that you can comment on the proposed project proceedings.

Kind Regards,



From: Ackerman Pieter <<u>AckermanP@dws.gov.za</u>>

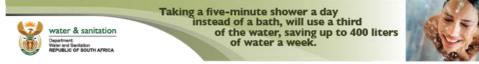
Sent: Friday, 01 November 2019 09:59

To: rudzani@singoconsulting.co.za; theunissec@dws.gov.za; Ramashala Lethabo (HBP)
<<u>RamashalaL@dws.gov.za</u>>; Enoch Candace <<u>EnochC@dws.gov.za</u>>
Cc: 'Kenneth, Singo' <<u>kenneth@singoconsulting.co.za</u>; masindi@singoconsulting.co.za;
owen@singoconsulting.co.za; nokuthula@singoconsulting.co.za; livhuwani@singoconsulting.co.za;
sithabile@singoconsulting.co.za; mutshidzi@singoconsulting.co.za;
siyabonga@singoconsulting.co.za; tendani@singoconsulting.co.za; abel@singoconsulting.co.za;

## **Subject:** RE: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

Hi Please inter alia implement scientific buffers between prospecting, mining, watercourses Regards

Pieter Ackerman (PrLArch) Chief Landscape Architect Department of Water and Sanitation (DWS), South Africa Sub Directorate Instream Water Use Tel: 012 336 8217 Cell: 082 807 3512 Fax: 012 336 6608



From: <u>rudzani@singoconsulting.co.za</u> [mailto:rudzani@singoconsulting.co.za]
Sent: 01 November 2019 09:36 AM
To: <u>theunissec@dws.gov.za</u>; Ramashala Lethabo (HBP); Enoch Candace; Ackerman Pieter

Cc: 'Kenneth, Singo'; <u>masindi@singoconsulting.co.za</u>; <u>owen@singoconsulting.co.za</u>; nokuthula@singoconsulting.co.za; livhuwani@singoconsulting.co.za; sithabile@singoconsulting.co.za; mutshidzi@singoconsulting.co.za; siyabonga@singoconsulting.co.za; tendani@singoconsulting.co.za; abel@singoconsulting.co.za; anthony@singoconsulting.co.za; takalani@singoconsulting.co.za Subject: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

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Kind regards

From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>

Sent: Thursday, 07 November 2019 10:31

To: 'nemutandanit@dws.gov.za' <nemutandanit@dws.gov.za>

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'masindi@singoconsulting.co.za'

<masindi@singoconsulting.co.za>; 'livhuwani@singoconsulting.co.za'

vlivhuwani@singoconsulting.co.za>; 'mutshidzi@singoconsulting.co.za'

<mutshidzi@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za'

<sithabile@singoconsulting.co.za>; 'owen@singoconsulting.co.za' <owen@singoconsulting.co.za> Subject: FW: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND

ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

Good day Mr Nemutandani,

Kindly note that a consultation email was sent to your colleagues pertaining the project as attached in the email below. However, we appreciate your correspondence through comment form enclosed with your details.

You have been registered as an interested and affected party for proposed project of prospecting for Manganese, Chrome & Nickel, on the Farm: TWEEKOPPIESFONTEIN 143 KP ON RE OF PORTION 1, RE OF PORTION 2, PORTIONS 3,4,5 AND RE.

Please note that all proceedings of the project will be shared with your office and also, kindly find attached documents (BID, Regulation 2.2 Map and Comment form) for your attention.

Note that your comments or concerns pertaining the project will very much be appreciated as they will assist us in producing a true reflection report of the area.

I hope the above is in order.

Kind Regards,



	JAC.	240	
	Singo Consultin	Statement of the local division of the local	
Office No. 16 First Floor (			ga Crescent, Corridor Hill,
			ahleni, 1035. Mpumalango
	Province,		
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Contact defails					
Address:					
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Email address:					

From: Ramashala Lethabo (HBP) <RamashalaL@dws.gov.za>
Sent: Friday, 01 November 2019 15:16
To: Nemutandani Tendani <NemutandaniT@dws.gov.za>
Cc: rudzani@singoconsulting.co.za
Subject: RE: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND
ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

Good afternoon Charles

Please register as I&AP.

Kind regards Mrs LD Ramashala Department of water and Sanitation Tel: 012 207 9911/ Cell: 082 9083 177 Emai: <u>ramashalal@dws.gov.za</u> Adress: P/Bag 357, Hartbeespoort, 0216 1 Timothy 2: 1-5

### "Before you are a leader, success is all about growing yourself But when you become a leader, success is all about growing others" (Jack Welch)



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za> Sent: Friday, 01 November 2019 09:36

**To:** 'theunissec@dws.gov.za' <theunissec@dws.gov.za>; 'RamashalaL@dws.gov.za'

<RamashalaL@dws.gov.za>; 'EnochC@dws.gov.za' <EnochC@dws.gov.za>; 'AckermanP@dws.gov.za' <AckermanP@dws.gov.za>

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'masindi@singoconsulting.co.za'

<masindi@singoconsulting.co.za>; 'owen@singoconsulting.co.za' <owen@singoconsulting.co.za>;

'nokuthula@singoconsulting.co.za' <nokuthula@singoconsulting.co.za>;

'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>;

'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za>;

'mutshidzi@singoconsulting.co.za' <mutshidzi@singoconsulting.co.za>;

'siyabonga@singoconsulting.co.za' <siyabonga@singoconsulting.co.za>;

'tendani@singoconsulting.co.za' <tendani@singoconsulting.co.za>; 'abel@singoconsulting.co.za'

<abel@singoconsulting.co.za>; 'anthony@singoconsulting.co.za' <anthony@singoconsulting.co.za>; 'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za>

**Subject:** INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of Niche Mining resources 247 (Pty) Ltd, hereby wish to inform you that it has submitted an application for a Prospecting Right together with an Environmental Authorization to the North west Department of Mineral Resources (DMR) for the proposed project of prospecting for Manganese, Chrome & Nickel, on the Farm: TWEEKOPPIESFONTEIN 143 KP ON RE OF PORTION 1, RE OF PORTION 2, PORTIONS 3,4,5 AND RE, situated within the Moses Kotane Local Municipality under Magisterial District of Madikwe, North-West Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of Niche Mining resources 247 (Pty) Ltd's intention to obtain Prospecting Right for the above mentioned minerals.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socioeconomic development, or instead might be affected by the prospecting activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;

• Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

**Singo Consulting (Pty) Ltd** has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced and for your participation, kindly fill the comment form attached as part of this email and register your comments, issues, questions that you have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached map, Comment form and Background Information Document (BID) for detailed description of the proposed project and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.



### Kind regards

From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>

Sent: Friday, 01 November 2019 09:44

To: 'molefile@nwpg.gov.za' <molefile@nwpg.gov.za>; 'BSetswambung@nwpg.gov.za' <BSetswambung@nwpg.gov.za>; 'tlegoete@nwpg.gov.za' <tlegoete@nwpg.gov.za>
Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'masindi@singoconsulting.co.za'

<masindi@singoconsulting.co.za>; 'owen@singoconsulting.co.za' <owen@singoconsulting.co.za>; 'nokuthula@singoconsulting.co.za' <nokuthula@singoconsulting.co.za>; 'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za>; 'siyabonga@singoconsulting.co.za' <sityabonga@singoconsulting.co.za>; 'mutshidzi@singoconsulting.co.za' <mutshidzi@singoconsulting.co.za>; 'tendani@singoconsulting.co.za' <tendani@singoconsulting.co.za>; 'tendani@singoconsulting.co.za' <tendani@singoconsulting.co.za>; 'anthony@singoconsulting.co.za' <anthony@singoconsulting.co.za>; 'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za>; 'deshney@singoconsulting.co.za' <deshney@singoconsulting.co.za> **Subject:** INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

Good day,

I hope this email finds you well.

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Please find the attached map, Comment form and Background Information Document (BID) for detailed description of the proposed project and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Kind regards



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>
Sent: Friday, 01 November 2019 10:06
To: 'mosianem@nwpg.gov.za' <mosianem@nwpg.gov.za>
Subject: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of Niche Mining resources 247 (Pty) Ltd, hereby wish to inform you that it has submitted an application for a Prospecting Right together with an Environmental Authorization to the North west Department of Mineral Resources (DMR) for the proposed project of prospecting for Manganese, Chrome & Nickel, on the Farm: TWEEKOPPIESFONTEIN 143 KP ON RE OF PORTION 1, RE OF PORTION 2, PORTIONS 3,4,5 AND RE, situated within the Moses Kotane Local Municipality under Magisterial District of Madikwe, North-West Province.

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Please find the attached map, Comment form and Background Information Document (BID) for detailed description of the proposed project and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Kind regards



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>
Sent: Tuesday, 26 November 2019 11:16
To: 'Keabetswe Mothupi' <keabetswe.mothupi@drdlr.gov.za>
Subject: RE: response letter
Importance: High

Good day Kea,

Thank you for your tremendous assistance. The results have been well received.

Kind Regards,



From: Keabetswe Mothupi <<u>keabetswe.mothupi@drdlr.gov.za</u>>
Sent: Tuesday, 26 November 2019 09:58
To: rudzani@singoconsulting.co.za
Subject: response letter

Good day

Kindly find the attached

Regards

Keabetswe W Mothupí Administrative Officer: IMS RLCC NW: MMABATHO

#### 018 388 7220



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>
Sent: Wednesday, 20 November 2019 10:13
To: 'Keabetswe Mothupi' <keabetswe.mothupi@drdlr.gov.za>
Subject: RE: Land Claim Enquiries

Good day,

Thank you.

Kind Regards,



From: Keabetswe Mothupi <<u>keabetswe.mothupi@drdlr.gov.za</u>> Sent: Wednesday, 20 November 2019 09:46 To: <u>rudzani@singoconsulting.co.za</u> Subject: RE: Land Claim Enquiries

Hi

I'm only waiting for your request to be signed



Sent: 20 November 2019 09:38 AM To: Keabetswe Mothupi <<u>keabetswe.mothupi@drdlr.gov.za</u>>

# Subject: RE: Land Claim Enquiries Importance: High

Hi Kea,

Did you manage to send me the outcomes?

I'm trying to look through my emails to see if I had appreciated your effort, but I can't seem to find the outcomes of the land claim enquiry.

I hope to hear from you.

Kind Regards,



From: Keabetswe Mothupi <<u>keabetswe.mothupi@drdlr.gov.za</u>>
Sent: Tuesday, 12 November 2019 10:20
To: rudzani@singoconsulting.co.za
Subject: RE: Land Claim Enquiries

Hi

Can you please give me till today cause I'm still busy with your request.



Sent: 12 November 2019 09:47 AM To: Keabetswe Mothupi <<u>keabetswe.mothupi@drdlr.gov.za</u>> Cc: 'Kenneth, Singo' <<u>kenneth@singoconsulting.co.za</u>; <u>masindi@singoconsulting.co.za</u>; <u>owen@singoconsulting.co.za</u>; <u>sithabile@singoconsulting.co.za</u>; <u>livhuwani@singoconsulting.co.za</u>; <u>anthony@singoconsulting.co.za</u>; <u>takalani@singoconsulting.co.za</u> Subject: RE: Land Claim Enquiries Importance: High

Good day Kea,

Kindly note that your responds in this regard is still waited upon.

Thank you and Regards,



From: Rudzani Shonisani [mailto:rudzani@singoconsulting.co.za]
Sent: Thursday, November 7, 2019 10:30 AM
To: 'Keabetswe Mothupi'
Cc: 'Kenneth, Singo'
Subject: RE: acknowledgement letter

Good day Kea,

This is to confirm that my request for knowing if ever there is any claim on the proposed farm areas as per our communication, you have not forgotten about it. The project is for prospecting of Manganese, Chrome & Nickel, on the Farm: TWEEKOPPIESFONTEIN 143 KP ON RE OF PORTION 1, RE OF PORTION 2, PORTIONS 3,4,5 AND RE, situated within the Moses Kotane Local Municipality under Magisterial District of Madikwe, North-West Province. DMR REF: NW 30/5/1/1/2/12710PR.

I hope to hear from you.

Thanks and Regards,



From: Rudzani Shonisani [mailto:rudzani@singoconsulting.co.za]
Sent: Monday, November 4, 2019 10:21 AM
To: 'Keabetswe Mothupi'
Cc: 'Kenneth, Singo'
Subject: RE: acknowledgement letter

Good day Kea,

Thank you for your prompt responds. I will wait for the actual outcomes of my query after 7 working days as stipulated on your attached letter.

Thank you once more and;

Kind Regards,



From: Keabetswe Mothupi [mailto:keabetswe.mothupi@drdlr.gov.za]
Sent: Monday, November 4, 2019 10:15 AM
To: Rudzani Shonisani
Subject: acknowledgement letter

Good day

Kindly find the attached



OFFICE OF THE REGIONAL LAND CLAIMS COMMISSIONER: NORTH WEST Crir James Moroka and Sekame drive, West gallery, Megacity, MMABATHO Tel: (018) 388 7000

Reference: R/7/04/11/2019 Enquiries: Keabetswe Mothupi Tel: (018) 388-7220 / E-mail: keabetswe.mothupi@drdir.gov.za

By E-Mail: rudzani@singoconsulting.co.za

Dear R Shonisani

LAND CLAIM ENQUIRY: PORTIONS 3, 4, 5, REMAINING EXTENT, R/E OF PORTION 1 AND R/E OF PORTION 2 OF THE FARM TWEEKOPPIESFONTEIN 143 KP

I acknowledge receipt of your letter dated the 01<sup>st</sup> of November 2019 regarding the above-mentioned matter.

Kindly note that a formal response could be expected from our office within the next 7(seven) working days.

Should you however required any additional information, you can contact Ms K.W Mothupi at the above mentioned contact details.

Yours faithfully



MR LEJ BOGATSU CHIEF DIRECTOR OFFICE OF THE REGIONAL LAND CLAIMS COMMISSIONER NORTH WEST PROVINCE DATE: 04/11/2019

### Regards

Keabetswe W Mothupí Administrative Officer: IMS RLCC NW: MMABATHO 018 388 7220

From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za > Sent: Friday, 01 November 2019 10:16 To: 'keabetswe.mothupi@drdlr.gov.za' <keabetswe.mothupi@drdlr.gov.za > Cc: 'Kenneth, Singo' <<u>kenneth@singoconsulting.co.za</u>>; 'masindi@singoconsulting.co.za' <<u>masindi@singoconsulting.co.za</u>>; 'owen@singoconsulting.co.za' <<u>owen@singoconsulting.co.za</u>>; 'sithabile@singoconsulting.co.za' <<u>sithabile@singoconsulting.co.za</u>>; 'livhuwani@singoconsulting.co.za' <<u>livhuwani@singoconsulting.co.za</u>>; 'anthony@singoconsulting.co.za' <<u>anthony@singoconsulting.co.za</u>>; 'takalani@singoconsulting.co.za' <<u>takalani@singoconsulting.co.za</u>>; 'subject: Land Claim Enquiries

Good Morning,

I hope this email finds you well.

You are kindly receiving this email as an enquiry for any possible land claim on all Portions of the Farm TWEEKOPPIESFONTEIN 143 KP ON RE OF PORTION 1, RE OF PORTION 2, PORTIONS 3,4,5 AND RE., situated in the Magisterial District of Madikwe, North West Province. DMR Ref: NW 30/5/1/1/2/12710 PR

Kindly review attached BID for detailed description of proposed project. This is to ensure that all claimants are properly consulted and are given opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP); and
- Inform any other person / organization that they may feel should be informed about the project.

Your comments will be highly appreciated as they will assist us in developing a well-informed BAR and EMPr.

Kind Regards,



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>

Sent: Tuesday, 26 November 2019 09:58

**To:** 'Dineo D. Lesejane' <DLesejane@moseskotane.gov.za>; 'Matome Makgoba' <MMakgoba@moseskotane.gov.za>

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'takalani@singoconsulting.co.za'

<takalani@singoconsulting.co.za>; 'livhuwani@singoconsulting.co.za'

livhuwani@singoconsulting.co.za>

Subject: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL

## AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD. Importance: High

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of Niche Mining resources 247 (Pty) Ltd, hereby wish to inform you that it has submitted an application for a Prospecting Right together with an Environmental Authorization to the North west Department of Mineral Resources (DMR) for the proposed project of prospecting for Manganese, Chrome & Nickel, on the Farm: TWEEKOPPIESFONTEIN 143 KP ON RE OF PORTION 1, RE OF PORTION 2, PORTIONS 3,4,5 AND RE, situated within the Moses Kotane Local Municipality under Magisterial District of Madikwe, North-West Province.

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This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socioeconomic development, or instead might be affected by the prospecting activities. Hence you are being offered an opportunity to:

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Please find the attached map, Comment form and Background Information Document (BID) for detailed description of the proposed project and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Kind regards



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za > Sent: Friday, 01 November 2019 10:18

To: 'CustomerCare@Moseskotane.gov.za' <CustomerCare@Moseskotane.gov.za> Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'masindi@singoconsulting.co.za' <masindi@singoconsulting.co.za>; 'owen@singoconsulting.co.za' <owen@singoconsulting.co.za>; 'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>; 'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za>; 'nokuthula@singoconsulting.co.za' <nokuthula@singoconsulting.co.za>; 'anthony@singoconsulting.co.za' <anthony@singoconsulting.co.za>; 'mutshidzi@singoconsulting.co.za' <mutshidzi@singoconsulting.co.za>; 'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za>; 'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za>;

Good day,

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If you know anyone who might be interested in this project, kindly forward this email to that person.

Kind regards

From: Ria Barkhuizen (NR) <Barkhuizenr@nra.co.za>
Sent: Tuesday, 05 November 2019 15:22
To: rudzani@singoconsulting.co.za
Subject: RE: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND
ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

Good day

This email is an acknowledgement of receipt for your enquiry.

Please note that your enquiry will be evaluated and a response provided within 30 days, in line with requirements of Section 29 of the Spatial Planning and Land Use management Act (Act No.16 of 2013) read with Section 3 of the Promotion of Administrative Justice Act (Act No.3 of 2000).

Should you not receive any response within 30 days, kindly follow up on the enquiry by responding to Jan Oliver who will be dealing with it and will convert back to you. He can be contacted on (012) 426-6200 / 6242.

Tx and Regards

From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>

Sent: Friday, 01 November 2019 10:20

To: 'nrstat@nra.co.za' <nrstat@nra.co.za>

**Cc:** 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'masindi@singoconsulting.co.za'

<masindi@singoconsulting.co.za>; 'owen@singoconsulting.co.za' <owen@singoconsulting.co.za>;

'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>;

'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za>;

'nokuthula@singoconsulting.co.za' <nokuthula@singoconsulting.co.za>;

'mutshidzi@singoconsulting.co.za' <mutshidzi@singoconsulting.co.za>;

'siyabonga@singoconsulting.co.za' <siyabonga@singoconsulting.co.za>;

'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za>

## **Subject:** INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

Good day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of Niche Mining resources 247 (Pty) Ltd, hereby wish to inform you that it has submitted an application for a Prospecting Right together with an Environmental Authorization to the North west Department of Mineral Resources (DMR) for the proposed project of prospecting for Manganese, Chrome & Nickel, on the Farm: TWEEKOPPIESFONTEIN 143 KP ON RE OF PORTION 1, RE OF PORTION 2, PORTIONS 3,4,5 AND RE, situated within the Moses Kotane Local Municipality under Magisterial District of Madikwe, North-West Province.

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This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socioeconomic development, or instead might be affected by the prospecting activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;

• Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

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Please find the attached map, Comment form and Background Information Document (BID) for detailed description of the proposed project and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

### Kind regards

From: Rudzani Shonisani [mailto:rudzani@singoconsulting.co.za]
Sent: Wednesday, November 6, 2019 9:11 AM
To: 'Way Leaves NW OU'
Cc: 'Kenneth, Singo'
Subject: RE: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND
ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

Good day,

Thank you for your prompt responds. Kindly note that all points regarding ensuring that Eskom structures are not disturbed or tempered with have been noted and will be adhered to upon commencement of the prospecting project.

Also, kindly note that a draft report will be sent to your office upon commencement of review period as stated on the BID attached on your comment sheet at the bottom. The report will include all points stated on your comment form and if ever there is more you would like to add, you will be most welcomed to do so.

I hope the above is in order.

Kind Regards,



From: Mbengeni Tshidzumba <TshidzDM@eskom.co.za> On Behalf Of Way Leaves NW OU Sent: Tuesday, 05 November 2019 13:42

To: rudzani@singoconsulting.co.za

**Subject:** RE: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

Good day

Please see attached as requested



S RUDZANI

Singo Consulting PTY LTD 9 Lange Crescent, Comidor Hill eMalahleni 1040 Date:05 November 2019

Enquiries:M.D TSHIDZUMBA Tel: +27 83 455 3716 Fax: 086 267 0760 Email: TshidzDM@eskom.co.za

Dear sk/madam

APPLICATION FOR PROSPECTING RIGHTS BASIC ASSESSMENT FOR TWEEKOPPIESFONTEIN 143 KP, PTNS 1, 2,3,4,5 AND RE.

#### Your Ref: NW 30/5/1/1/2/12710 PR Our Ref: RTB/324/2019

We refer to your application dated 01/11/2019.

This application affects our Eskom North West Operating Unit, ZEERUST CHROME/NIETVERDIEND 1 22KV and ZCN 44-64-37-140-12/ZCN44-64-89 Conductors. Eskom Distribution will raise no objection to the proposed application, provided Eskom's rights and services are acknowledged and respected at all times.

- There is a 9 metres building and tree restriction on either side of the centre line of the 11 kV power lines, which must be adhered to in all future developments. No construction work may be executed closer than 9 meters from any of Eskom's structures and or supporting mechanisms. The building restriction for 132 kV on each side of the center of the power line is 15.5m and the separation distance between parallel lines is 21m.
- 2. All work within Eskom Distribution reserve area and servitudes must be done in accordance with the requirements of the Occupational Health and Safety Act No.85 of 1993 as amended. Special attention must be given to the clearances between Eskom's conductors, structures, cables and electrical apparatus and the proposed work as stipulated by Regulation R15 of the Electrical Installations Regulations of the aforementioned Act or any other legal requirements. The requirements of the OHS Act must be adhered to in conditions where the existing.
- Eskom Distribution's services and equipment must be acknowledged at all times and may not be tampared or interfered with.
- 4. All work within Eskom Distribution reserve area and servitudes must be done in accordance with the requirements of the Occupational Health and Safety Act No.85 of 1993 as amended. Special attention must be given to the clearances between Eskom's conductors, structures, cables and electrical apparatus and the proposed work as stipulated by Regulation R15 of the Electrical Installations Regulations of the aforementioned Act or any other legal requirement
- The Applicants and Eskom's cables must be placed in sleeves encased in concrete across the width of the servitude, at the applicant's expense where frequent excevations occur in the cable area.
- Eskom Distribution shall not be liable for the death of or injury to any person or for the loss
  of or damage to any property whether as a result of the encroachment or of the use of the
  area where Eskom Distribution has its services, by the applicant, his/her agent, contractors,
  Employees, successors in 5the and assigns.

North West OU Asider Creation 43 Batwissent 43 Batwissent 44 Batwissent Rustenburg: P O Box 1319 Rustenburg 0000 SA Tol + 27 14 595 1138 Fax F27 86 537 1344 www.eskibit.co.za



- 7. The applicant indemnifies Eskom against loss, claims or demages including claims pertaining to interference with Eskom Distribution services or apparatus or otherwise. The applicant's attention is drawn to section 27(3) of the Electricity Act 1987, as amended in 1994, which stipulates that the applicant can be fined and/or imprisoned as a result of damage to Eskom's apparatus.
- No mechanical equipment, including mechanical excavators, high lifting machinery and drilling equipment, may be used within Eskom's reserve area, or within close proximity of Eskom's services and equipment, without prior permission in writing and supervision of Eskom's authorised area manager for the NWOU Technical Service Centre Area; P Olifant <OlifanP@eskom.co.za> (Tel. 018 464 6847).
- Permission must be obtained at least 10 (ten) working days prior to the commencement of any work within the reserve area.
- Eskom Distribution shall at all times have unobstructed access to and egress from its services.
- It will be required of the applicant to familiarise him/her self with all safety hazards related to electrical plant.
- Eskom's consent will not relieve the applicant from obtaining the necessary statutory, land owner or municipal approvals. (Eskom is not the land owner).
- Any third party servitudes encroaching on Eskom servitudes shall have to be registered against the property at the applicant's own cost.
- 14. The ineffective management and handling of waste is of crucial importance. No dumping shall be allowed within Eskom Distribution Servitudes. All unwanted waste (gaseous, liquid or solids) should be disposed of at a registered waste disposal site as stipulated under Section 20 of the Environmental Conservation Act (Act 73 of 1989).
- No blasting is permitted. If blasting is needed, an additional application is to be lodged with Eskom Distribution.
- Any development, which necessitates the relocation of our services, will be to the account of the developer. For the relocation of any services, please contact Eskom Customer Services at Eskom Contact Centre: 086 00 37566.
- Eskom will recover costs from the applicant where any damages of Eskom assets and or any penalties suffered by Eskom occur.

Should the applicant or his contractor damage any of Eskom services during commencement of any work whatsoever, then Eskom's 24 hour Contact Centre Tel: 086 000 1414 must be notified immediately to report the incident.

We thank you and hope you will find the above in order. Should you have technical queries on the Eskom standards and specifications please feel free to phone our Technology and Quality Department, contact person: Mr Stephen Nkwane Tel: 012 421 4853

faithfully. For: Noxolo Galela

LAND DEVELOPMENT MANAGER.

North West, OU Assert Clogifier Land Davelopmend 43 Boom Street Rustenburg, IP D Box 1319 Rustenburg 0300 SA 191-221 14 465 1135 Fax +27 85 637 1844 www.eekom.co.za



Regards.



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>
Sent: Friday, 01 November 2019 10:58
To: 'wayleavesmou@eskom.co.za' <wayleavesmou@eskom.co.za>; 'wayleavesNWOU@eskom.co.za'
<wayleavesNWOU@eskom.co.za>

**Cc:** 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'masindi@singoconsulting.co.za'

<masindi@singoconsulting.co.za>; 'owen@singoconsulting.co.za' <owen@singoconsulting.co.za>;

'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>;

'sithabile@singoconsulting.co.za' <sithabile@singoconsulting.co.za>;

'nokuthula@singoconsulting.co.za' <nokuthula@singoconsulting.co.za>;

'mutshidzi@singoconsulting.co.za' <mutshidzi@singoconsulting.co.za>;

'anthony@singoconsulting.co.za' <anthony@singoconsulting.co.za>;

'siyabonga@singoconsulting.co.za' <siyabonga@singoconsulting.co.za>;

'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za>; 'tendani@singoconsulting.co.za' <tendani@singoconsulting.co.za>

**Subject:** INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

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If you know anyone who might be interested in this project, kindly forward this email to that person.

Kind regards



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>
Sent: Friday, 08 November 2019 10:27
To: 'tmanda@nwpb.org.za' <tmanda@nwpb.org.za>
Cc: 'madikweadmin@nwpb.org.za' <madikweadmin@nwpb.org.za>;
'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>;
'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za>
Subject: FW: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND

ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD. Importance: High

Good day,

Kindly note the email below. I had taken a wrong email address through our telecommunication.

Apologies for my mistake.

Regards,



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>

Sent: Friday, 08 November 2019 10:13

To: 'madikweadmin@nwpd.org.za' <madikweadmin@nwpd.org.za>

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'masindi@singoconsulting.co.za'

<masindi@singoconsulting.co.za>; 'owen@singoconsulting.co.za' <owen@singoconsulting.co.za>; 'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>;

'nokuthula@singoconsulting.co.za' <nokuthula@singoconsulting.co.za>;

'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za>; 'tendani@singoconsulting.co.za' <tendani@singoconsulting.co.za>; 'mutshidzi@singoconsulting.co.za' <mutshidzi@singoconsulting.co.za>; 'anthony@singoconsulting.co.za' <anthony@singoconsulting.co.za> Subject: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD. Importance: High

### Attention: Mr. Thomas

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Kind regards



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>
Sent: Friday, 08 November 2019 11:49
To: 'junior.selwuadi@transnet.net' <junior.selwuadi@transnet.net>
Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'masindi@singoconsulting.co.za'
<masindi@singoconsulting.co.za>; 'owen@singoconsulting.co.za' <owen@singoconsulting.co.za>;

'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>;

'nokuthula@singoconsulting.co.za' <nokuthula@singoconsulting.co.za;

'takalani@singoconsulting.co.za' <takalani@singoconsulting.co.za>

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From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>

Sent: Friday, 08 November 2019 14:16

To: 'info@bojanala.gov.za' <info@bojanala.gov.za>

**Cc:** 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'masindi@singoconsulting.co.za'

<masindi@singoconsulting.co.za>; 'livhuwani@singoconsulting.co.za'

livhuwani@singoconsulting.co.za>; 'nokuthula@singoconsulting.co.za'

<nokuthula@singoconsulting.co.za>; 'takalani@singoconsulting.co.za'

<takalani@singoconsulting.co.za>

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Kind regards



From: Rudzani Shonisani [mailto:rudzani@singoconsulting.co.za]

Sent: Monday, November 18, 2019 3:58 PM To: 'William Nyoni'

**Cc:** 'Kenneth, Singo'; 'masindi@singoconsulting.co.za'; 'livhuwani@singoconsulting.co.za';

'tendani@singoconsulting.co.za'; 'takalani@singoconsulting.co.za'; 'Happy Motha';

'themba.mazibuko@dmr.gov.za'; 'enquiries@dmr.gov.za'; 'Thokozile Gexa'; 'Victor Madubanya'; 'Lindelani Shezi'; 'North West PSSC Invoices'

**Subject:** RE: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.

Good day Mr William,

**I**, **Miss Rudzani Shonisani**, offers my sincere apology to your office and abuse of your email address. I had tried calling the north west offices, however I was not getting a hold of them, thus I sent the email to your office with a statement that pleads with you to forward the email to those who might be interested or affected.

As usual when I get to communicate with a DrdIr member, and it's not the right office they would refer me to the right office and then I keep contact therefore and thank them for assisting. I was in the hope that you could assist in that regard also. However, I still stand to apologize and **also would like to notify you that two separate email were sent to your office.** One being for a mining right in Carolina under Naudesbank 172 IS farm on Portion 09 and another email containing a prospecting right application for Niche in Northwest as attached on your respond email. The only thing you miss represented, is the attachments which were sent the Mpumalanga region which you represent and you attached them to the north west region which you are against.

(Carolina, Scoping report came with a BID and email about Mpumalanga project: Naudesbank 172 IS, Portion 09) and (Northwest email, came with a BID, Reg 2.2 Map and Comment form: : TWEEKOPPIESFONTEIN 143 KP ON RE OF PORTION 1, RE OF PORTION 2, PORTIONS 3,4,5 AND RE) not the other way round.

Kindly note your error and acknowledge it and receive my apology once more.

Your comments with regards to the mining right application, in terms of farm ownership and the attached scoping report for you to review will be highly anticipated and appreciated.

I hope the above is in order.

Kind Regards,



From: William Nyoni < William.Nyoni@drdlr.gov.za>

Sent: Thursday, 14 November 2019 16:23

**To:** rudzani@singoconsulting.co.za

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za; masindi@singoconsulting.co.za; livhuwani@singoconsulting.co.za; tendani@singoconsulting.co.za; takalani@singoconsulting.co.za; Happy Motha <Happy.Motha@drdlr.gov.za>; 'themba.mazibuko@dmr.gov.za' <themba.mazibuko@dmr.gov.za>; enquiries@dmr.gov.za; Thokozile Gexa <Thokozile.Gexa@drdlr.gov.za>; Victor Madubanya <victor.madubanya@drdlr.gov.za>; Lindelani Shezi <Lindelani.Shezi@drdlr.gov.za>; North West PSSC Invoices <Invoices.NW@drdlr.gov.za> Subject: RE: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD. Importance: High

Afternoon Rudzani Shonisani

With all due respect, we are officials within the Mpumalanga Province.

Mr Shonisani, the properties in question are in the North West Province. I am not sure what are your intentions of sending these to us within the Mpumalanga Province when there are officials and an office of the Department situated and responsible for properties within the North West Province?

Kindly provide clarity?

Regards

Dan Nyoni Property Management: Leases Gert Sibande District Shared Service Centre Department: Agriculture, Rural Development and Land Reform Tel (W): 017 819 1373 Cell No: 071 856 0524 e-mail : <u>william.nyoni@drdlr.gov.za</u>

"What GOD has given, no MAN can take !!..."



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>

Sent: Tuesday, 12 November 2019 08:10

**To:** 'happy.motna@drdlr.gov.za' <happy.motna@drdlr.gov.za>; 'william.nyoni@drdlr.gov.za' <william.nyoni@drdlr.gov.za>

**Cc:** 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'masindi@singoconsulting.co.za'

<masindi@singoconsulting.co.za>; 'livhuwani@singoconsulting.co.za'

livhuwani@singoconsulting.co.za>; 'tendani@singoconsulting.co.za'

<tendani@singoconsulting.co.za>; 'takalani@singoconsulting.co.za'

<takalani@singoconsulting.co.za>

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I hope this email finds you well.

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This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of Niche Mining resources 247 (Pty) Ltd's intention to obtain Prospecting Right for the above mentioned minerals.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socioeconomic development, or instead might be affected by the prospecting activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;

• Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

**Singo Consulting (Pty) Ltd** has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced and for your participation, kindly fill the comment form attached as part of this email and register your comments, issues, questions that you have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached map, Comment form and Background Information Document (BID) for detailed description of the proposed project and timelines.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Kind regards



From: rudzani@singoconsulting.co.za <rudzani@singoconsulting.co.za>
Sent: Wednesday, 27 November 2019 10:18
To: 'mtladi@environment.gov.za' <mtladi@environment.gov.za>
Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>
Subject: INVITATION TO COMMENT ON THE PROPOSED PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR NICHE MINING RESOURCES 247 (PTY) LTD.
Importance: High

Good day,

I hope this email finds you well.

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Please find the attached map, Comment form and Background Information Document (BID) for detailed description of the proposed project and timelines.

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Kind regards

### Appendix E: Calculation of a Quantum





NW 30/5/1/1/2/12710 PR

Applicant:	Niche Mining Resources 247 (Pl			NW 30/5/1/1/2/12710 PR				
Applicant. Evaluator:	Kenneth Singo	y) tia			Ref No.: Date:		Dec-19	
			A	В	C	D	E=A*B*C*D	
No.	Description		Quantity	Master Rate	Multiplication factor	Weighting factor 1	Amount (Rands)	
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	0	16	1	1	0	
2 (A)	Demolition of steel buildings and structures	m2	0	228	1	1	0	
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	336	1	1	0	
3	Rehabilitation of access roads	m2	0	41	1	1	0	
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	395	1	1	0	
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	216	1	1	0	
5	Demoiltion of housing and/or administration facilities	m2	0	455	1	1	0	
6	Opencast rehabilitation including final voids and ramps	ha	0	238,697	1	1	0	
7	Sealing of shafts adits and inclines	m3	0	122	1	1	0	
8 (A)	Rehabilitation of overburden and spolls	ha	0	159131	1	1	0	
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	198,195	1	1	0	
8(C)	Rehabilitation of processing waste deposits and evaporation ponds (poliuting potential)	ha	0	575,653	1	1	0	
9	Rehabilitation of subsided areas	ha	0	133249	1	1	0	
10	General surface rehabilitation	ha	0.9	126059	0.01	0.05	56.72655	
11	River diversions	ha	0	126059	1	1	0	
12	Fencing	m	0	144	1	1	0	
13	Water management	ha	0	47931	1	1	0	
14	2 to 3 years of maintenance and aftercare	ha	0	16776	1	1	0	
15 (A)	Specialist study	Sum	0	0	1	1	0	
15 (B)	Specialist study	Sum	0	0	1	1	0	
	•		•		Sub Tot	al 1	56.72655	
	Destination and General				weighting t	actor 2		

	4	Preliminary and General	6.807186	weighting factor 2	6.807186	
		Preliminary and General	0.007100	1	6.007106	
	2	Contingencies	5.6	5.672655		
1				Subtotal 2	69.21	
	SIGN	Ndinannyi Kenneth Singo				
	DATE	12/3/2019		VAT (15%)	37160.87	
				Grand Total	37230	

## Appendix F: Impact Management Outcomes

ACTIVITY	POTENTIAL	ASPECTS	PHASE	MITIGATION TYPE	STANDARD TO
(Whether listed or not listed). (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.).	IMPACT (Including the potential impacts for cumulative impacts) (E.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc.)	AFFECTED	In which impact is anticipated (E.g. Construction, commissioning, operational, Decommissioning, closure, post-closure)	(modify, remedy, control, or stop) Through (E.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc.) (E.g. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation)	BE ACHIEVED (Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.
	EMP	Project Management	Planning	<ul> <li>A finalized EMP must address all authorization conditions stipulated by the DEA (and other commenting authorities).</li> <li>The EMP should also encompass all environmental impact mitigation measures as identified in the final BAR.</li> </ul>	MPRDA &
Planning and Project Management	Appointment of Environmental Officer	Project Management	Planning	<ul> <li>Niche Mining Resources 247 (Pty) Ltd environmental geologist will serve as the</li> <li>Environmental Officer (EO) during construction, given the short duration of construction and the low significance impacts which are envisaged. Niche Mining Resources 247 (Pty) Ltd environmental geologist will be responsible for monitoring the compliance of the construction workers and employees on site with the EMP and ensure their cooperation.</li> </ul>	MPRDA & NEMA

Permits and Permissions Planning	<ul> <li>JB Marks Local Municipality must ensure that all licensing, permits or certificates required for the project are obtained and in place prior to the commencing of any construction activities on site.</li> </ul>	ž
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	Emergency	Safety and health	Planning	Plan all emergency responses including:	MPRDA & NEMA
ACTIVITY	POTENTIAL	ASPECTS	PHASE	MITIGATION TYPE	STANDARD TO
(Whether listed or not	IMPACT	AFFECTED	In which impact is	(modify, remedy, control, or stop)	BE ACHIEVED
listed). (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.).	(Including the potential impacts for cumulative impacts) (E.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc.)		anticipated (E.g. Construction, commissioning, operational, Decommissioning, closure, post-closure)	Through (E.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc.) (E.g. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation)	(Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.
	Response Planning	personnel on site		<ul> <li>Response procedures to fires, explosions, or any accidents that will require rapid medical responses; and</li> </ul>	
				<ul> <li>Responses to community and stakeholder concerns and communication procedures with potentially affected parties (I&amp;AP).</li> </ul>	
	Project Schedule	Undertaking the project in a timeous manner	Planning	Plan and develop a construction sequence to alleviate noise generation during the construction phase.	N/A

Method Statement	Project Management	Planning	Ensure that a method statement has been compiled and submitted to the Site/Construction manager.	N/A
Grievances	Project Management	Planning	Develop grievance mechanisms for the recording and management of complaints and grievances specifically including (but not limited to) grievances from those living in the area.	N/A
Records and Administration	Project Management	Planning	<ul> <li>Ensure the following are up to date and available on site:</li> <li>A complaint register.</li> <li>An approved method statements.</li> <li>Copies of the EMP.</li> </ul>	

ACTIVITY (Whether listed or not listed). (E.g. Excavations, blasting, stockpiles,	POTENTIAL IMPACT (Including the potential impacts for cumulative	ASPECTS AFFECTED	PHASE In which impact is anticipated (E.g. Construction,	MITIGATION TYPE (modify, remedy, control, or stop) Through	STANDARD TO BE ACHIEVED (Impact avoided, noise levels,
discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.).	impacts) (E.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc.)		commissioning, operational, Decommissioning, closure, post-closure)	<ul> <li>(E.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc.)</li> <li>(E.g. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation)</li> </ul>	dust levels, rehabilitation standards, end use objectives) etc.
				<ul> <li>Environmental Permits and authorizations.</li> <li>Copies of weekly checklists, compliance reports, incidence reports and corrective action reports.</li> </ul>	
				Photographs of areas of concern (photos of non- compliance areas as well corrective action).	
	Recruitment of Labor	Project Management	Planning	<ul> <li>Attendance registers of environmental awareness training.</li> <li>Where possible, the contractor must make use of local labor in support of the local economy.</li> <li>Advertise employment opportunities adequately, so as not to limit application opportunities.</li> <li>Implement a transparent process of recruiting construction staff, following pre-established and accepted criteria.</li> </ul>	Basic Conditions of Employment Act, No. 75 of 1997 (as amended)
PRE-DRILLING/ EXPLOR A	TION				
	Site establishment	Project Management	Planning	The Contractor must, in agreement with the Construction Manager, decide upon an area for the location of a construction camp. The construction camp should be properly demarcated and fenced, and be adequately sized, with sufficient space for site offices, construction vehicles, equipment, material and waste storage areas	

ACTIVITY	POTENTIAL	ASPECTS AFFECTED	PHASE	MITIGATION TYPE	STANDARD TO
(Whether listed or not listed). (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.).	IMPACT (Including the potential impacts for cumulative impacts) (E.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination groundwater contamination air pollution etc.)		In which impact is anticipated (E.g. Construction, commissioning, operational, Decommissioning, closure, post- closure)	(modify, remedy, control, or stop) Through (E.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc.) (E.g. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation)	BE ACHIEVED (Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.
				<ul> <li>The construction camp must be located in an area with minimal damage or disturbance to the environment.</li> <li>Establish 'NO-GO' areas- where no construction personnel, equipment/machinery or vehicles are permitted. Any identified Environmental Sensitive or important areas should be designated as 'NO-GO' areas.</li> </ul>	
	Site Housekeeping	Project Management	Planning	The construction camp should be kept clean and orderly at all times.	

Fe	ublution acilities	Project Management	Planning	<ul> <li>Enough toilet facilities should be provided near construction camp. The toilets should be properly covered and ventilated and should contain hand washing facilities.</li> <li>Portable toilets should be properly secured to the grounds to avoid toppling in the case of a wind/storm event.</li> <li>Ensure that all toilets function properly and are in a hygienic state. The toilets should be cleaned and emptied regularly.</li> <li>Ensure that there are no spillages when toilets get cleaned and emptied.</li> <li>Urination on site should be strictly prohibited.</li> </ul>	
(E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control.	POTENTIAL IMPACT (Including the potential impacts for cumulative impacts) (E.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc.)	ASPECTS AFFECTED	PHASE In which impact is anticipated (E.g. Construction, commissioning, operational, Decommissioning, closure, post- closure)		STANDARD TO BE ACHIEVED (Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.

Site establishment activities (-ve) _ Vegetation clearance _ Topsoil stripping & stockpiling _ Drill pad compaction	Cultural and Heritage	Destruction or loss of Cultural and Heritage Resources: No cultural/heritage artefacts have been identified on site	Construction / Set_up	<ul> <li>Environmental Permits and authorizations.</li> <li>Copies of weekly checklists, compliance reports, incidence reports and corrective action reports.</li> </ul>
_ Erection of office, toilets, fuel storage (if	Noise	Noise Generation	Construction / Set_up	<ul> <li>Photographs of areas of concern (photos of non- compliance areas as well corrective action).</li> </ul>
not by road tanker), water tanker, core storage	Visual	Visual intrusion	Construction / Set_up	Attendance registers of environmental awareness N/A
_ Vehicle movements _ Waste management	Traffic	Increase in traffic volumes in the vicinity of the drilling site	Construction / Set_up	<ul> <li>Traffic signs to be put around the site to notify motorist of the activities</li> <li>Construction vehicles to make trips on/off site only when necessary</li> </ul>

ACTIVITY	POTENTIAL	ASPECTS AFFECTED	PHASE	MITIGATION TYPE	STANDARD TO
(Whether listed or not listed). (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.).	IMPACT (Including the potential impacts for cumulative impacts) (E.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc.)		In which impact is anticipated (E.g. Construction, commissioning, operational, Decommissioning, closure, post- closure)	<ul> <li>(modify, remedy, control, or stop) Through</li> <li>(E.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc.)</li> <li>(E.g. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation)</li> </ul>	BE ACHIEVED (Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.
				Construction vehicles to adhere to local speed limits as far as possible when driving in around site	
	Signage	Traffic volumes, safety	Construction / Set_up	<ul> <li>The construction management needs to communicate the commencement and duration of construction activities to the community.</li> <li>Clear signage needs to be put up to make and keep the community awareness of construction activities so as to prevent any hazardous occurrences.</li> <li>Provide adequate safety warning signage on the roads.</li> </ul>	National Traffic Act Regulations

	Dust fall	Dust fall & nuisance from activities	Construction / Set_up	separation of distance of minimorn soom, bot	R. 827 M:AQA)
ΑCTIVITY	Soil and vegetation <b>POTENTIAL</b>	The potential impact of the proposed prospecting on the ASPECTS AFFECTED	Construction / Set_up PHASE	The soil disturbance and clearance of vegetation at drill pad areas will be limited to the absolute minimum required; No clear scraping (dozing) be carried out unless absolutely necessary to establish a level drill pad.     MITIGATION TYPE STAN	MBA
(Whether listed or not listed). (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and	IMPACT (Including the potential impacts for cumulative impacts) (E.g. dust,		In which impact is anticipated (E.g. Construction, commissioning, operational, Decommissioning, closure, post-	Through (Imp avoi level (E.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity stand	ACHIEVED pact bided, noise els, dust els, abilitation ndards, end objectives)
transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.).	noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc.)		closure)	(E.g. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation)	•

	vegetation would occur at proposed drilling sites and the access routes used to get to these sites.		•	Rather that surface vegetation is cleared to make way for the drilling rig leaving the roots intact so that vegetation can coppice and regrow; and Disturbed areas will be re-vegetated with locally indigenous species as soon as possible.	
Animal life	Animal life will be affected in the immediate vicinity of the drilling rig. It is anticipated that the noise and general activity will keep the animal life away from the site while the prospecting is ongoing.	Construction/ Set_ up	•	Environmental awareness training sessions should be part of the workers' induction and site workshops; and If any animals are encountered they must not be killed or injured, but should rather be removed or chased away from the site with the assistance of an animal specialist	NEMBA
Social	Friction	Construction /		All operations will be carried out under the guidance of a strong,	NEMA

ACTIVITY	POTENTIAL	ASPECTS AFFECTED	PHASE	MITIGATION TYPE	STANDARD TO
(Whether listed or not listed). (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.).	IMPACT (Including the potential impacts for cumulative impacts) (E.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc.)		In which impact is anticipated (E.g. Construction, commissioning, operational, Decommissioning, closure, post- closure)	(modify, remedy, control, or stop) Through (E.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc.) (E.g. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation)	BE ACHIEVED (Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.
		between residents/land owners and construction personnel	Set_up	<ul> <li>experienced manager with proven skills in public consultation and conflict resolution;</li> <li>All prospecting personnel will be made aware of the local conditions and sensitivities in the prospecting area and the fact that some of the residents may not welcome the prospecting activities in the area;</li> <li>There will be a strict requirement to treat residents with respect and courtesy at all times.</li> </ul>	
	Job creation	Employment will be created for the clearing of the land and establishing the drilling site.	Construction/ set- up	No mitigation measures required.	NEMA

	Storage and Disposal of Waste	Safety and aesthetic/ visual aspects of the property, as well	Construction/ set- up & Operation	<ul> <li>Litter generated by construction workers must be collected in containers that are clearly labelled and disposed of weekly at registered waste disposal sites.</li> <li>Sufficient weather- and vermin- proof bins should be placed on site for the disposal of solid waste. Littering on site should be</li> </ul>	National Waste Act
ACTIVITY (Whether listed or not listed). (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control.	POTENTIAL IMPACT (Including the potential impacts for cumulative impacts) (E.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination,	ASPECTS AFFECTED	PHASE In which impact is anticipated (E.g. Construction, commissioning, operational, Decommissioning, closure, post- closure)	MITIGATION TYPE (modify, remedy, control, or stop) Through (E.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc.) (E.g. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation)	STANDARD TO BE ACHIEVED (Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.
berms, roads, pipelines, power lines, conveyors, etc.).	air pollution etc.)				

	as waste disposal practices.		•	strictly prohibited. The burning of waste on site should also be prohibited. All waste generated from construction activities (building rubble, solid and liquid waste etc.), should be disposed of as frequently at an appropriately licensed refuse facility. Minimize waste generation, e.g. by providing re-usable items and refillable containers (e.g. for drinking water) and adopt a 'cradle to grave' responsibility for wastes. Comply with legal requirements for waste management and pollution control and employ "good housekeeping" and monitoring practices.	
Hazardous Waste	Safety and aesthetic/visual aspects of the property, as well as waste disposal practices.	Construction/ set- up & Operation	•	Any hazardous waste that may be generated should be separated from general waste and stored in clearly marked and properly sealed secondary containers. Any hazardous waste generated should be disposed of accordance with the Hazardous Chemical Substances Regulations, 1995 (Regulation 15).	National Waste Act
Spills and	Safety and	Construction/ set- up		Any equipment that is leaking should be temporarily	National

ACTIVITY	POTENTIAL	ASPECTS AFFECTED	PHASE	MITIGATION TYPE	STANDARD TO
(Whether listed or not listed). (E.g. Excavations,	IMPACT (Including the potential		In which impact is anticipated	(modify, remedy, control, or stop) Through	<b>BE ACHIEVED</b> (Impact avoided, noise
blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.).	impacts for cumulative impacts) (E.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc.)		(E.g. Construction, commissioning, operational, Decommissioning, closure, post- closure)	<ul> <li>(E.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc.)</li> <li>(E.g. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation)</li> </ul>	levels, dust levels, rehabilitation standards, end use objectives) etc.
	Leaks	aesthetic/ visual aspects of the property, as well as waste disposal practices.	& Operation	<ul> <li>decommissioned and removed from the construction site, to a surface with an impermeable surface and waste water collection system.</li> <li>Spill response kits must be readily available and accessible to all personnel on site.</li> </ul>	Waste Act
	PPE			Ensure that all persons on site use Personal Protective Equipment (PPE) at all times, this including safety boots, safety vests, protective masks etc.	Employment Act
	Illegal Fires			Ensure that no fires are ignited on site unless required for construction purposes, in which case the EC should designate areas for the fires. The designated areas should be as far as possible from vegetation.	NEMA

ACTIVITY	Erosion	The properties of the receiving environment, and ensuring that the ground is not susceptible to ASPECTS AFFECTED	Construction/ set- up & Operation PHASE	•	Ensure that erosion management and sediment controls are strictly implemented from the beginning of site clearing activities. All topsoil stockpiles (if any) must be protected against wind, erosion and seeds, i.e. by use of shade cloth or netting. Topsoil stockpiles should not exceed 2 meters in height. MITIGATION TYPE	
(Whether listed or not listed).	IMPACT (Including the		In which impact is anticipated		(modify, remedy, control, or stop) Through	<b>BE ACHIEVED</b> (Impact
(E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.).	potential impacts for cumulative impacts) (E.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etcetc)		(E.g. Construction, commissioning, operational, Decommissioning, closure, post- closure)		<ul> <li>(E.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc.)</li> <li>(E.g. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation)</li> </ul>	avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.
		erosion beyond that which can be rehabilitated.				
EXPLORATION		be rehabilitated.				

Exploration drilling (ve) _ Drilling _ Drill maintenance & refuelling _ Core sample _ collection & storage _ Vehicle movements _ Waste generation &	Noise	Noise Generation	Operations	•	Construction/setup, operational and decommissioning activities will be limited to daylight hours on Mondays to Saturdays and no activities on Sundays and public holidays; Separation of distance of minimum 500m, but preferably 1000m to be maintained between drill sites and dwellings; Noise abatement equipment, such as mufflers on diesel engines, will be maintained in good condition; and If intrusive noise levels are experienced by any person at any point, the source of the noise will be moved if practical, or it will be placed in an acoustic enclosure, or an acoustic barrier will be erected between the source and the recipient.	Heritage Act
management	Visual	Visual intrusion	Operations	•	The drilling rig and other visually prominent items on the site will be in consultation with the landowner; Make use of existing vegetation as far as possible to screen the	SANS 10103

ACTIVITY	POTENTIAL	ASPECTS AFFECTED	PHASE	MITIGATION TYPE	STANDARD TO
(Whether listed or not	IMPACT		In which impact is	(modify, remedy, control, or stop)	BE ACHIEVED
listed). (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.).	(Including the potential impacts for cumulative impacts) (E.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc.)		In which impact is anticipated (E.g. Construction, commissioning, operational, Decommissioning, closure, post- closure)	(modify, remedy, control, or stop) Through (E.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc.) (E.g. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation)	BE ACHIEVED (Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.
				prospecting operations from view; and	
				<ul> <li>If necessary, the operations can be screened from view by erecting a shade cloth barrier.</li> </ul>	
		Increase in traffic		<ul> <li>Traffic signs to be put around the site to notify motorist of the activities</li> <li>Construction vehicles to make trips on/off site only</li> </ul>	
	Traffic	volumes near the drilling site	Operations	<ul> <li>Construction vehicles to make inps on/on site only when necessary</li> <li>Construction vehicles to adhere to local speed limits as far as possible when driving in around site</li> </ul>	N/A
	Dust fall	Dust fall & nuisance from activities	Operations	<ul> <li>Wet suppression will be applied to ensure that no visible dust is raised by any of the prospecting operations;</li> <li>Separation of distance of minimum 500m, but preferably 1000m</li> </ul>	National Traffic Act Regulations

				to be maintained between drill sites and dwellings; and Low vehicle speeds will be enforced on unpaved surfaces.	
	Soil and vegetation	Soil and vegetation disturbance	Operations	<ul> <li>The soil disturbance and clearance of vegetation at drill pad areas will be limited to the absolute minimum required; No clear scraping (dozing) be carried out unless necessary to establish a level drill pad. Rather that surface</li> </ul>	GN R. 827 (NEM:AQA)
ACTIVITY (Whether listed or not	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE In which impact is	MITIGATION TYPE (modify, remedy, control, or stop)	STANDARD TO BE ACHIEVED
listed). (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.).	(Including the potential impacts for cumulative impacts) (E.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc.)		(E.g. Construction, commissioning, operational, Decommissioning, closure, post- closure)	Through (E.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc.) (E.g. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation)	(Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.
		from drill pad preparation		vegetation be cleared to make way for the drilling rig leaving the roots intact so that vegetation can coppice and regrow; and	
				<ul> <li>Disturbed areas will be re_vegetated with locally indigenous species as soon as possible.</li> </ul>	

	Animal life	Animal life will be affected in the immediate vicinity of the drilling rig. It is anticipated that the noise and general activity will keep the animal life away from the site while the prospecting is ongoing.	Operations	Measures implemented during site establishment should apply in this phase as well.	NEMBA
	Social	Friction between	Operations	All operations will be carried out under the guidance of a strong,	NEMBA
ACTIVITY	POTENTIAL	ASPECTS AFFECTED	PHASE	MITIGATION TYPE	STANDARD TO
(Whether listed or not listed). (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.).	IMPACT (Including the potential impacts for cumulative impacts) (E.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc.)		In which impact is anticipated (E.g. Construction, commissioning, operational, Decommissioning, closure, post- closure)	(modify, remedy, control, or stop) Through (E.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc.) (E.g. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation)	BE ACHIEVED (Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.

		residents/land owners and construction personnel		<ul> <li>experienced manager with proven skills in public consultation and conflict resolution;</li> <li>All prospecting personnel will be made aware of the local conditions and sensitivities in the prospecting area and the fact that some of the residents may not welcome the prospecting activities in the area;</li> <li>There will be a strict requirement to treat residents with respect and courtesy always.</li> </ul>	
	Job creation	Employment will be created for the clearing of the land and establishing the drilling site.	Operations	No mitigation measures required.	Basic Conditions of Employment Act, No. 75 of 1997 (as amended)
DECOMMISSIONING AN	D REHABILITATION	I			
Rehabilitation of the drill sites and	Removal of construction structures	Ensuring the receiving environment is	Rehabilitation	<ul> <li>Clear and completely remove from site all construction plant equipment, storage containers, signage, temporary fencing, temporary services, fixtures and any other temporary works;</li> </ul>	NEMA

ACTIVITY	POTENTIAL	ASPECTS AFFECTED	PHASE	MITIGATION TYPE	STANDARD TO
(Whether listed or not	IMPACT		In which impact is	(modify, remedy, control, or stop)	BE ACHIEVED
listed). (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes,	(Including the potential impacts for cumulative impacts) (E.g. dust, noise, drainage surface disturbance, fly		(E.g. Construction, commissioning, operational, Decommissioning, closure, post- closure)	<ul> <li>(E.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc.)</li> <li>(E.g. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation)</li> </ul>	(Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.
accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.).	rock, surface water contamination, groundwater contamination, air pollution etc.)				
surroundings		not impacted on any further, by dismantling machinery and equipment appropriately.		and Ensure that all access roads utilized during construction (which are not earmarked for closure and rehabilitation) are returned (as far as possible) to their state prior to construction.	
	Waste and Rubble Removal	Visual aspects by preventing any further pollution.	Rehabilitation	<ul> <li>Clear the site of all inert waste and rubble, including surplus rock, foundations and batching plant aggregates.</li> <li>Load and haul excess spoil and inert rubble to fill in borrow pits         <ul> <li>/ dongas or to dump sites indicated / approved by an environmental control specialist</li> </ul> </li> <li>Remove from site all domestic waste and dispose of in the approved manner at a registered waste disposal site.</li> </ul>	National Waste Act

	Solid & Hazardous Waste			<ul> <li>Store hazardous waste as indicated on the approved Environmental Management Plan (EMP).</li> <li>Dispose of all hazardous waste not earmarked for reuse, recycling or resale at a registered hazardous waste disposal site.</li> <li>Remove from site all temporary fuel stores, hazardous</li> </ul>	National Waste Act
ACTIVITY	POTENTIAL	ASPECTS AFFECTED	PHASE	MITIGATION TYPE	STANDARD TO
(whether listed or not listed). (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etcetcetc.).	IMPACT (Including the potential impacts for cumulative impacts) (E.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etcetc)		In which impact is anticipated (E.g. Construction, commissioning, operational, Decommissioning, closure, post- closure)	(modify, remedy, control, or stop) Through (E.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc) (E.g. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation)	BE ACHIEVED (Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.
				<ul> <li>substance stores, hazardous waste stores and pollution control sumps. Dispose of hazardous waste in the approved manner.</li> <li>Do not hose oil or fuel spills into a storm water drain or sewer, or into the surrounding natural environment.</li> <li>Dispose of all visible remains of excess material when exiting the site.</li> </ul>	

Erosion protection Rehabilitation	<ul> <li>Protect all areas susceptible to erosion and ensure that there is no undue soil erosion resultant from activities within and adjacent to the construction site.</li> <li>Retain shrubbery and grass species wherever possible.</li> <li>Perform regular monitoring and maintenance of erosion control measures.</li> </ul>
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## Appendix G: Site Pictures and Site Notices

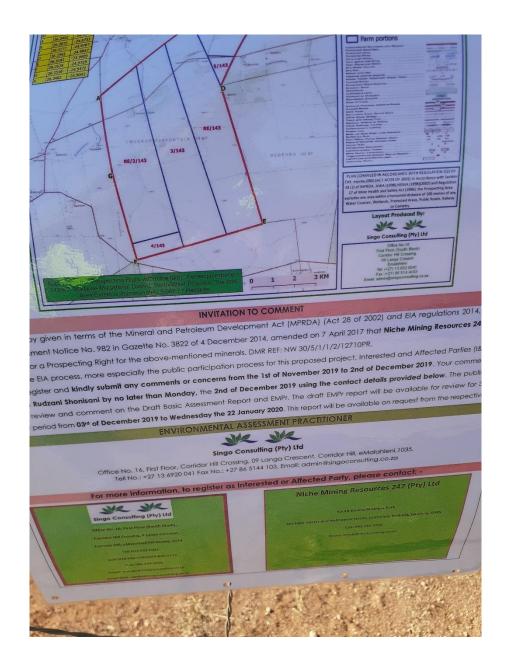








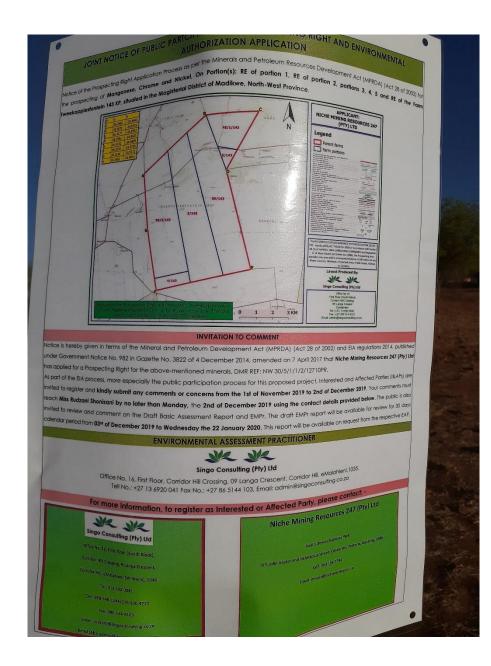


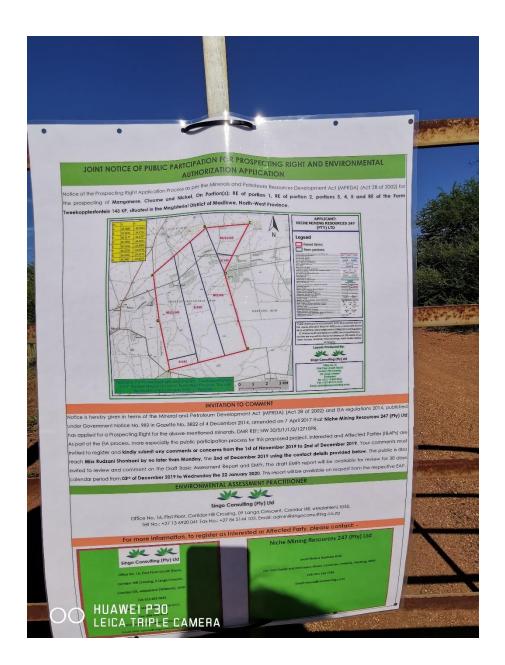














Appendix H: Specialist Study