TSHIKOVHA GREEN &
CLIMATE CHANGE ADVOCATES (PTY) LTD

We Advocate For Environmental Compliance Throughout Business Value Chain

DRAFT BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME FOR PROPOSED PROSPECTNG RIGHT APPLICATION FOR CHROME ON PORTIONS 1 AND REMAINING EXTENT ON THE FARM VLAKFONTEIN 164 JP , SITUATED WITHIN MOSES KOTANE LOCAL MUNICIPALITY,BOJANALA DISTRICT MUNICIPALITY,NORTH WEST PROVINCE

REFERENCE NUMBER: NW 30/5/1/1/3/2/1/12406 EM

COMMENTING PERIOD: 5 SEPTERMBER- 5 OCTOBER

PROPONENT: LESEGO THABANG MASILO (PTY) LTD

SEPTEMBER 2018

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mineral resources
Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

DRAFT 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).

NAME OF APPLICANT: LESEGO THABANG MASILO (PTY) LTD

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FILE REFERENCE NUMBER SAMRAD:

This Basic Assessment Report (Draft BAR) and Environmental Management Programme (EMPr) is being submitted to the Department of Mineral Resources (DMR) in support of the Prospecting Right Application lodged by Lesego Thabang Masilo (Pty) Ltd.

The draft BAR and EMPr will subjected to a mandatory 30-day public review and comment period in terms of Chapter 6 of the National Environmental Management Act (Act No. 107 of 1998) as amended (April 2017). All comments received will be included in the final BAR and EMPr to be submitted to the DMR. A full consultation report will be compiled once all comments are received and are responded to by the Environmental Assessment Practitioner (EAP).

i. 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 report is not cluttered with un-interpreted information and that it unambiguously represents the interpretation of the applicant.

ii. 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 the these aspects to determine:

(i) the nature, significance, consequence, extent, duration, and probability of the impacts occurring to; and

(ii) the degree to which these impacts—

(aa) can be reversed;

(bb) may cause irreplaceable loss of resources; and

(cc) can be managed, avoided or mitigated;

(e) 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—

(i) identify and motivate a preferred site, activity and technology alternative;

(ii) identify suitable measures to manage, avoid or mitigate identified impacts; and

(iii) identify residual risks that need to be managed and monitored.

Executive Summary

Lesego Thabang Masilo (Pty) Ltd applied for an Environmental Authorisation for proposed prospecting activities for chrome on portion 1 and remaining extent of farm Vlakfontein 164 JP, within Moses Kotane Local Municipality, Bojanala District Municipality,

The application has been lodged in terms of Regulation 16 of the National Environmental Management Act (Act 107 of 1998) (NEMA): Environmental Impact Assessment (EIA) Regulations, 2014 and Section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002).In terms of the NEMA (Act 107 of 1998). EIA regulations of 2014 (amended April 2017), the proposed prospecting activity triggers Activity 20 of Listing Notice 1 GNR 327 and the applicant cannot proceed without an Environmental Authorisation.

Tshikovha Green Climate Change Advocates (Pty) Ltd has been appointed by Lesego Thabang Masilo (Pty) Ltd as an independent environmental assessment practitioner (EAP) to undertake the Environmental Impact Assessment for the proposed prospecting right project. The purpose of the study is to identify and assess all the possible impacts that may arise from the implementation of the proposed project and also to find the most effective way of enhancing environmental benefits and mitigating potential impacts to encourage sustainable development of the area.

The public participation process will be announced in the local newspaper. The following process will be undertaken:

- Publication of a media advertisement in Platinum Weekly a local Newspaper
- Erecting site notices at visible and accessible entry points in and around the proposed project area;
- Directly notifying affected I&APs and Stakeholders representing various sectors of society by distributing information via e-mail i.e. Background Information Documents (BID) and also through telephonic communication..

The proposed prospecting activities will be undertaken over a period of Five (5) years and the activities will be conducted in progressive phases which include Non-invasive and invasive methods. The Non-invasive method will include desktop studies and aero magnetic surveys, whereas Invasive methods will include sampling, drilling, bulk sampling.

The potential risks and key issues identified were based on consultation with I&APs, through an internal process based on similar projects, current state of the environment of the site, and a site visit. A detailed description of the surrounding land use is provided below, ensuring that all environmental aspects are highlighted. A description of the biophysical and social environment is included in the report, to ensure that all potential risks and issues are taken into consideration in all phases of the proposed project. A brief description of the potential aspects that will be impacted include,

- Policy requirements
- Air quality
- Fauna
- Flora
- Waste
- Surface water
- Ground water
- Geology
- Soils
- Traffic
- Cultural and Heritage
- Socio-economic

The findings and conclusions of this document (DBAR) and Environmental Management Programme (EMPr), which concerns assessment of environmental impacts and a programme for management of the impacts for the proposed prospecting activities at the Vlakfontein Prospecting Project site, was compiled in terms of the EIA Regulations of 2014 (amended, April 2017) for review by interested and affected parties including the competent authority. Based on the impact assessment, recommendations were made to mitigate significant negative impacts as well as to maximize positive impacts that will result from the proposed project.

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PART A

SCOPE OF ASSESSMENT AND BASIC ASSESSMENT REPORT

1. Contact Person and correspondence address

1.1. Details of the EAP

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1.2. Expertise of the EAP

1.2.1. The qualifications of the EAP

Vhangani Mugeri

Bachelor of Sciences: Environmental Management and Geology with Geology Honours

Ndivhuwo Maponya

Bachelor of Environmental Sciences & Bachelor of Environmental Sciences Honours

(Refer to Appendix A)

1.2.2. Summary of the EAP's past experience

(In carrying out the Environmental Impact Assessment Procedure)

EAP's past experience	
Name	**Background**
Vhangani Mugeri	Mr Vhangani Mugeri is an Environmental Assessment Practitioner with approximately 2 and half years of experience. He holds an Honours BSc degree in Geology and BSc in Environmental Management and Geology. He has undertaken environmental compliance/permitting (including basic assessments, applications for prospecting and mining rights and mining permits, and public participation/stakeholder engagement, he has also undertaken a role as an Environmental Control officer in the construction industry,Mining industry and Manufacturing industry

Ndivhuwo Maponya	Maponya Ndivhuwo is an Environmental Assessment Practitioner (EAP) at Tshikovha Green and Climate Advocates. She holds an Honours degree in Environmental Science from University of Venda obtained in 2014 and had also successfully completed the GIS certified course which is in-line with spatial mapping. Ndivhuwo Maponya has expertise in a wide range of environmental disciplines, including Environmental Impact Assessment (EIA), Environmental Management Programmes and Co-ordination and facilitation of the public participation process. She had also worked for Department of Rural Development and Land Reform. Maponya Ndivhuwo has been involved in the following projects • The application of Mining right for Grifo Properties in Roodepoort under City of Johannesburg, Gauteng province. • Environmental monitoring and auditing for Vharanani road in road construction • Development of a filling station in Matatshe under Thulamela Municipality, Limpopo Province • Application of Section 24 for Wildfire Charcoal • Environmental Authorisation for development of a Commercial vegetable Farming in Jericho North West Province • Environmental Auditing for Simmer and Jack landfill site under the Ekurhuleni Municipality; • The proposed road upgrade from gravel to tar including construction of storm water outlet structures and refurbishment of culvert bridges in Ekangala ward 103, 104 and 105 within City of Tshwane Metropolitan Municipality, Gauteng province.

2. Location of the overall Activity

Farm Name:	Vlakfontein 164 JP
Application area (Ha)	2946.493169 ha
Magisterial district:	Bojanala District Municipality
Distance and direction from nearest town	55km to Rustenburg using R565 road
21 digit Surveyor General Code for each farm portion	B0JP00000000016400000 B0JP00000000016400001

3. Locality map (Show nearest, town scale not smaller than 1: 250 000)

Figure 1: Map showing nearest towns

4. Description of the scope of the proposed overall activity.

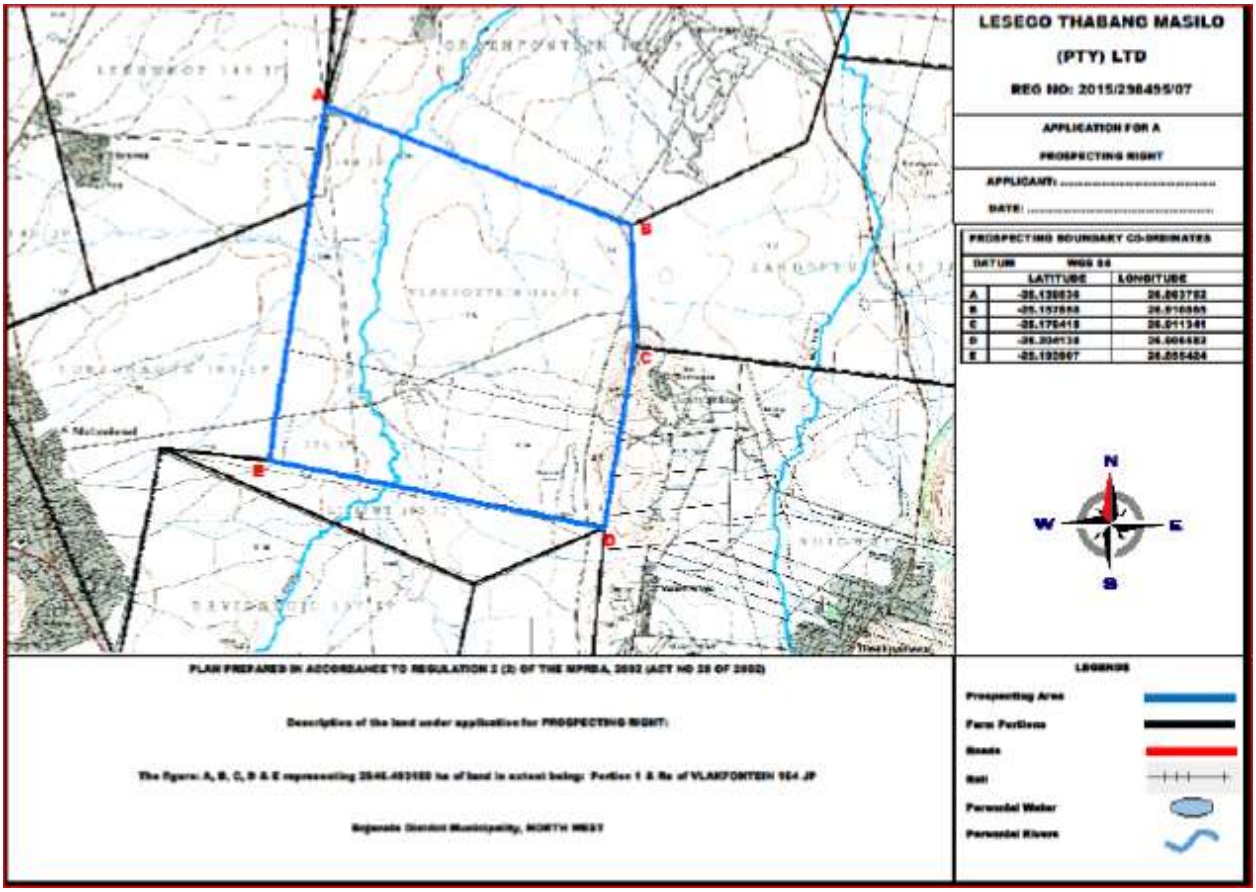

Figure 2: Regulation sketch plan for the proposed area

4.1. Listed and specified activities

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), An Environmental Authorization is required for a Prospecting Right and that the applicant must notify and consult with Interested and Affected Parties (I&APs). In terms of EIA Regulations 2014, published in Government Notice (GN) 982 as amended R324, R325, R327 under section 24(5) of the National Environmental Management Act (NEMA), the application for a prospecting right is subjected to an application for Environmental Authorization. The proposed prospecting activities trigger the following activity(s) under GNR 327 which requires a Basic Assessment Report (BAR) and Environmental Management Programme (EMPr):

NAME OF ACTIVITY	Aerial extent of the Activity Ha or m²	LISTED ACTIVITY	APPLICABLE LISTING NOTICE
Prospecting	2946.49 Ha	**X**	R 983 Listing Notice 1 Activity 20 as amended by GNR 327 of April 2017: 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— (a) Associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource. (b) the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing; R 983 Listing Notice 1 Activity 22 as amended by GNR 327 of April 2017 The decommissioning of any activity requiring – (i) a closure certificate in terms of section 43 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002); or (ii) a prospecting right, mining right, mining permit, production right or exploration right, where the throughput of the activity has reduced by 90% or more over a period of 5 years excluding where the competent
Drill site 12 boreholes will be drilled Total 12 drilling site= 0.12 ha (1200 m^2) 1 drill hole= 0.01 ha (100 m^2)	0.12 Ha (1200m^2)		
Site preparation, clearance of top soil and vegetation	50m^2 per prospecting site		
Sampling and storage	10 m^2 per soil sample per layer		
Waste generated, stored and disposed	Less than 2 m^3		
Rehabilitation of prospected area and decommissioning of activities this includes: borehole capping; re-spreading of stockpiles covering cleared sites; and removal of temporary site facilities, water tanks, mobile toilets, waste and all machineries	0.12 ha		

			authority has in writing agreed that such reduction in throughput does not constitute closure

4.2. Description of the activities to be undertaken

Lesego Thabang Masilo (Pty) Ltd is applying for Prospecting Right on portion 1 and remaining extent of farm Vlakfontein 164 JP situated within Moses Kotane Local Municipality, Bojanala District Municipality, North West Province. The commodity that is to be prospected is Chrome and it is expected that a period of five (5) years will be needed to carry out this activity.

4.2.1. The prospecting method or methods to be implemented

4.2.1.1. Description of planned non-invasive activities:

(These activities do not disturb the land where prospecting will take place (e.g.: Aerial photography, desktop studies, aero magnetic surveys, etc.)

- Geophysical Exploration Techniques

Geophysical prospecting and exploration is the geophysics applied to the location of mineral deposits or geological structures concealed beneath the surface of the earth. In general a hidden ore body or geological structure associated with it must possess one (or more) physical property that is different from surroundings in order to cause a measurable affect or anomaly in a geophysical survey. The main physical properties exploited during geophysical physical prospecting are (**Electrical properties, Magnetic properties, Nuclear properties and gravity properties**)

The main instrument types used for geophysical exploration are discussed below:

(a) Magnetic Methods

Certain types of ore, especially magnetite, ilmenite and pyrrhotite bearing sulphide deposits, produce distortions in the earth's magnetic fields. Some iron rich manganese and chromium may also yield magnetic anomalies. The ferro-magnetic minerals have 2 (two) distinct magnetic properties. One is that the earth's magnetic field turns the ore body into a large magnet which in turn wraps the normal field, thus producing anomaly. The other is that the ferro-magnetic materials often have a residual magnetism due to their original formation and this residual magnetism may act at an angle to the earth's magnetic field, thus strengthening or weakening the original field and thus forming anomalies. A magnetic survey may be established or at ground level

.

(b) Electro Magnetic Methods

When a transmitted electro-magnetic field is propagated through the ground it induces an electrical current in any conductor in its path. These secondary currents in turn produce the own alternating electro-magnetic field, which opposes the primary field. The lower the resistance of the conductor then the stronger the opposing current will be. Thus, if the induced field is passed through a good conductor, such as ore body containing graphite, pyrrhotite, pyrite, chalcopyrite or magnetite a strong secondary filed is setup.

(c) Electrical Methods

Three forms of electrical geophysical prospecting methods are used self-potential, resistivity and induced polarisation. The self-potential method is useful as an indicator of near surface anomalies because it is cheap and simple to operate. If two non-polarisable electrodes are driven anywhere into the ground and connected to terminals of a sensitive voltmeter, a small voltage is fund to exist between the terminals. In the resistivity method, an electric current is sent into the ground and the pair of electrodes and a sensitive voltmeter measures the resulting distribution of potentials. When an electrical current is passed into the earth, its theoretical paths through homogenous ground are known.

(d) Other Geophysical Techniques

Several other techniques are available for geophysical prospecting such as seismic and gravity techniques, which are suitable for structural mapping although they have some application to specific types of ore body. Gravity techniques are based on small changes in the earth's surface gravitational effect caused by a pool of rocks lying up to several thousand meters below surface. It is used to locate faults, anticlines and other structures and may also be used to detect high density ore bodies. Seismic methods are based upon physical characteristics by which large differences occur in the velocity of sound waves in geological strata

(e) Geochemical Technique

It is used to determine values of elements that are higher than the normal background value.
Samples that should be analysed include

- Rock samples from surface outcrop
- Soil samples from surface pits
- Steam sediments
- Leaves and roots of predominant vegetation

4.2.1.2. <u>Description of planned invasive activities:</u>

These activities result in land disturbances (e.g. sampling, drilling, bulk sampling, etc.)

- Trenching / Pitting

Four (4) trenches will be dug in a hundred meter spacing distances and it will be in rectangular shape

- Drilling and Sampling

The principal prospecting activity will be diamond core drilling. One drill rig will be utilised to drill NQ – 60mm diameter of core size. This core size provides sufficient sample mass for laboratory analysis.

A minimum of 5 samples of chromium intersection will be taken, although it may be necessary to take additional samples in transitional zones. A total of 12 boreholes will be drilled and the approximate depth of each borehole will be 150m, the boreholes will cover the potential chromium bearing area. Additional 2 boreholes will be drilled in phase two (2) of drilling with the estimated depth of 300 meters.

4.2.1.3 Description of pre- feasibility Studies

(Activities in this section includes but are not limited to: initial, geological modelling, resource determination, possible future funding models, etc)

In this stage the core logs will be sent to the consultant geologist to be analysed, evaluated, modelled and calculated. This calculation will be done in two (2) different types which will be Inferred Resource Calculation and also in terms of Measured Resource Calculation. It also involves the measurement of depth of the deposit. In this stage we can be able to decide whether the deposit is minable or not.

4.2.1.4 The Prospecting Phases to be implemented

These intended prospecting activities will be conducted in phases using the aforementioned methods**.** The intended phases in sequence are indicated in the table below.

Table 1:Planned Prospecting Phases

Phase	Activity (what are the activities that are planned to achieve optimal prospecting)	Skills Required (refers to the competent personnel that will be employed to achieve the required results)	Timeframe In Months for the activity	Outcome (What is expected deliverable, e.g. Geological report, analytical results, feasibility study, etc.)	Timeframe for outcome Deadline for the expected outcome to be delivered	What technical expert will sign off on the outcome (eg Geologist, mining engineers, Surveyors ,Economists etc)
1	Non Invasive Prospecting • Literature Review • Remote Sensing • Regional Airborne Geophysical Interpretation • Geological Mapping • Regional Soil Geochemistry	• Geologist • Geologist/GIS Specialist • Geophysicist • Geologist • Geochemist	1-2	• Geological report with a summary of previous work and prospecting targets. • Prospecting targets • Prospecting targets/structural interpretation plans • Detailed Geological Map • Soil geochem anomalies	12 Months	• Geologist • Geologist • Geophysicist • Geologist • Geochemist

2	Non Invasive Prospecting • Magnetic • Electro Magnetic • Electrical Resistivity • Survey	Geologist	1-24	Digital Data gathering and the design of flight profiles and plans	24 Months	Geologist
3(a)	Invasive Prospecting Drilling 12 bore holes (150 meters each)	Geologist/Metallurgist	24-48	• Core logging • Core sampling • Core Analysis	24 Months	Geologist/Metallurgist
(b)	Trenches 4 trenches will be dug	Geologist	25-48	• Volumes, Average Grade, Locality and Sidewall profiles	24 Months	Geologist
(c)	Excavations 25m *25m will be dug	Labourers	25-48	• Sidewall Mapping • Lithological Studies	23 Months	Geologist

4	Non -invasive Prospecting Analytical Desktop Study	Geologist/Metallurgist/Mining Engineer	48-60	Cost estimation, Mining viability study, infrastructure, Mining method, Resource Statement and Geological Plans and Maps	12 Months	Geologist/Consultants/Metallurgist/Mining engineer

5. Policy and Legislative Context

Table 2: Policy and Legislative Context

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	REFERENCE WHERE APPLIED	HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE LEGISLATION AND POLICY CONTEXT?
Constitution of the Republic of South Africa, 1996	During Operational and Decommissioning phase of the proposed development	Section 24 of the Constitution of the Republic of South Africa provides the overarching environmental legislative framework for environmental management. According to this section: "Everyone has the right: to an environment that is not harmful to their health or well-being; and to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that- Prevent pollution and ecological degradation; Promote conservation; and Secure ecologically sustainable development and use of natural resources while promoting

		justifiable economic and social development
National Environmental Management Act, 1998 (Act No. 107 of 1998)	During Planning phase of the project, the proposed development is listed in GNR 327 Listing Notices 1. Activity Number 20 is triggered.	Lesego Thabang Masilo (Pty).Ltd has appointed Tshikovha Green and Climate Change Advocates (Pty) Ltd to conduct Environmental Impact Assessment for the proposed project in line with Impact Assessment Regulations of the National Environmental Management Act 107 of 1998 as amended in 2017. Submission of Basic Assessment Report and Environmental Management Programme Report to the Competent Authority as required by NEMA
Mineral and Petroleum Resources Development Act	The prospecting right activities requires the prospecting right from the Department of Mineral Resources	A prospecting right application has been lodged with the DMR as the competent Authority
National Heritage Resources Act (Act No 25 of 1999	All cultural and heritage resources should be protected if or when encountered	A permit may be required if identified cultural/heritage sites on the proposed site will be disturbed or destroyed as a result of the prospecting activities.
National Environmental Management: Air	Minimal Dust from moving vehicles and drilling can be	This Act governs the standards associated with dust generation which are used in Impact Assessments to regulate

Quality Act (Act No 39 of 2004)	generated.	the concentration of particulates that can be tolerated without the deterioration of environmental aspects.
Occupational Health and Safety Act (No 85 Of 1993)	During construction and operational phase, contractors and employees should adhere to the requirements of this legislation for a safe working environment.	The Act provides for the health and safety of persons at work and for the health and safety of persons in connection with the use of machinery; the protection of persons other than persons at work, against hazards to health and safety arising out of or in connection with the activities of persons at work.
National Environmental Management: Biodiversity Act (Act No 10 of 2004)	The prospecting activities may encounter critical endangered species	The Act provides for listing threatened or protected ecosystems, in one of four categories: critically endangered (CR), endangered (EN), and vulnerable (VU) or protected.
National Forests Act (Act No. 84 of 1998)	During the Site establishment, there may be a clearance of vegetation which includes trees.	In terms of S5(1) no person may cut, disturb, damage or destroy any protected tree or possess, collect, remove, transport, export, purchase, sell donate or in any other manner acquire or dispose of any protected tree or any forest product derived from a protected tree.
National Road Traffic Act (Act No 93 of 1996)	The technical recommendations for highways (TRH 11): "Draft Guidelines for Granting of Exemption Permits for the Conveyance of Abnormal Loads and for other Events on Public Roads" outline the rules and conditions which apply to	An abnormal load/vehicle permit may be required for the drill rig to be taken to the site. These include route clearances and permits will be required for vehicles carrying abnormally

	the transport of abnormal loads and vehicles on public roads and the detailed procedures to be followed in applying for exemption permits are described and discussed. Legal axle load limits and the restrictions imposed on abnormally heavy loads are discussed in relation to the damaging effect on road pavements, bridges, and culverts. The general conditions, limitations, and escort requirements for abnormally dimensioned loads and vehicles are also discussed and reference is made to speed restrictions, power/mass ratio, mass distribution, and general operating conditions for abnormal loads and vehicles. Provision is also made for the granting of permits for all other exemptions from the requirements of the National Road Traffic Act and the relevant Regulations.	heavy or abnormally dimensioned loads.
Mine Health and Safety Act ,1996 (No. 29 of 1996	The mine Health and Safety Act, 1996 (No, 29 of 1996) provides for the protection of the health and safety of employees and other persons at mines and, for that purpose- promote culture of health and safety	The applicant will be required to meet the requirements of the Mine Health and Safety Act during invasive and non-invasive prospecting phases.
	The proposed activities require the use of water, however it will not consume enough water to trigger a water use license	No water use license is required for this application. Any water required for drilling activities will be brought in via a

National Water Act (Act No. 36 of 1998)	application.	mobile water tanker.
National Environmental Management: Waste Act, Act 59 of 2008	Management measures environmental awareness plan	The generation of potential waste will be minimised through ensuring employees of the drilling contractor are subjected to the appropriate environmental awareness campaign before commencement of drilling. All waste generated during drilling activities will be disposed of in a responsible legal manner.
Conservation of Agricultural Resources Act, 1983	The overall Prospecting Activities	The project should promote the conservation of soil, water and vegetation
Section 34 of the Local Government: Municipal Systems Act, 2000 (ACT 32 of 2000)	The overall prospecting activities	Municipal System Act compels municipalities to draw up the IDP`s as a singular inclusive and strategic development plan. In terms of section 26 of the MSA, A municipality produces an IDP every five year.
National Development Plan 2030	The overall prospecting activities	The NDP aims to eliminate poverty and reduce inequality by 2030. According to the plan, South Africa can realise these goals by drawing on the energies of its people, growing an inclusive economy, building capabilities, enhancing the capacity of the state, and promoting leadership and

		partnership throughout society.

6. Need and desirability of the proposed activities

Assessment of the geological data available has determined that the area in question may have the proposed minerals. In order to ascertain the above and determine the nature, location and extent of the subject minerals within the proposed prospecting area, it will be necessary that prospecting be undertaken. The prospecting will also determine if there are any features that may have an impact on the economic extraction of the subject minerals. The mineral that will be prospected is Chrome.

A prospecting right allows a company to survey or investigate the area of land for the purpose of identifying an actual or probable mineral deposit. The data that will be obtained from the prospecting of the minerals being applied for will be necessary to determine how and where the minerals will be extracted and how much economically viable mineral reserves are available within the proposed prospecting area.

Currently South Africa is faced with an outbreak of illegal mining at a national scale which is associated with death of illegal miners as a result of conflict, thus mining prospecting activities reduces the probability of these incidents and on other hand promoting the sustainable and regulated exploration of natural resources in an environmental friendly manner

Additionally, the mineral prospecting activities will stimulate an income for the local minority that will be involved in the activity from site clearance, excavation to testing. The result will provide a gateway for the stimulation of sustainable income for local community at the operational stage of chrome mining.

7. Motivation for the overall preferred site, activities and technology alternative including Full description of the process followed to reach the proposed preferred alternatives within the site.

The proposed site was selected based on extensive research and also following on information from previous prospecting activities in the area. There are known chrome reserves in the area and chrome mining is currently taking place within a 10 km radius from the proposed project area. In terms of the technologies proposed, the proposed prospecting methods and technologies have been chosen based on the known successful prospecting processes within the area. The prospecting activities proposed in the Prospecting Works Programme (PWP) is dependent on the preceding phase as previously discussed, therefore no alternatives are indicated, but rather a phased approach of trusted prospecting techniques

7.1. Details of the development footprint alternatives considered.

7.1.1. Location Alternatives

There is no preferred site alternative for the proposed prospecting project because the mineral the applicant proposes to prospect is located within the preferred site.

7.1.2. Design/Layout Alternatives

Since exploration is temporary in nature, no permanent structures will be constructed. Negotiations and agreements will be made with the land owners to use any existing infrastructure like access roads for the explorers, and any infrastructures that may exist on site.

7.1.3. Technology Alternatives

Geophysical exploration techniques and Geochemical technique are the only major methods used in exploring for deposits of this type and also for resource definition and evaluation. The technology to be used cannot be replaced by any other methods thus these are the preferred activities.

7.1.4. Operational Alternatives

Exploration Drilling Methods

The principal prospecting activity will be diamond core drilling. One drill rig will be utilised to drill NQ – 60mm diameter of core size. This core size provides sufficient sample mass for laboratory analysis.

A minimum of 5 samples of chromium intersection will be taken, although it may be necessary to take additional samples in transitional zones. A total of 12 boreholes will be drilled and the approximate depth of each borehole will be 150m, the boreholes will cover the potential chromium bearing area. Additional 2 boreholes will be drilled in phase two (2) of drilling with the estimated depth of 300 mete

7.2. The option of not implementing the activity (no-go option)

The ‘no-go’ alternative is the option of not undertaking prospecting activities on the project site. The no-go option assumes the site remains in its current state. Drilling is required in order to investigate the potential and feasibility of the minerals on site. There is no potential for any future investment in a mine without the confirmation of the mineral resources availability which can only be obtained from drilling activities. Should the prospecting right not be granted, effectively the minerals being applied for will not benefit the local community. The socio-economic benefit and most notably the future employment and potential of mine development will be lost if the prospecting activities are not implemented in order to determine the feasibility of any deposits that may occur within the area.

- The mining sector forms part of the backbone of the South African economy. The North West Province is the main contributor to the Provincial GDP and as such the option of not carrying out the prospecting activities would prevent future prospects of mining thus reducing the contribution to the GDP.

- The jobs that were to be created during prospecting phase will also be missed; these employment opportunities would be reduced, causing an economic burden on the government as people dependant on social grants would not be reduced.

- The state of the natural environment will remain the same, amongst other things the following will be beneficial:

  - There will be no geological and soil disturbance which may lead to ground water contamination

  - No excessive generation of wastes from the proposed activities

  - No compaction of path ways affecting the growth pattern of grasses and movement of micro animals

  - The biodiversity will not be altered as there will be no removal of plants and induced noise from prospecting activities.

8. Details of the Public Participation Process Followed

This section of the report provides an overview of the tasks undertaken for the Public Participation Process (PPP) to date. The PPP was conducted in terms of Chapter 6 of the NEMA and included the following:

1) Identification of key Interested and Affected Parties (affected and adjacent landowners) and other stakeholders (organs of state and other parties) (Appendix H7- Stakeholder Database)

2) Placement of site notices on farms, municipal area and other accessible public areas (Appendix H3)

3) Formal notification of the application to key Interested and Affected Parties and other stakeholders (Appendix H5-BID);

4) Consultation and correspondence with I&AP's and Stakeholders and the addressing of their comments;

5) Newspaper advert (Appendix H2)

8.1. Identification of key Interested and Affected Parties:

Public Participation is the involvement of all parties who are either potentially interested and/or affected by the proposed development. The principal objective of public participation is to inform and enrich decision-making. This is also its key role in this Environmental Impact Assessment (EIA) process.

Land owners (affected and adjacent) were identified through the site visit. Additional relevant organisations were also identified and notified of the application. This includes municipal and State departments with jurisdiction in the project area. Interested and Affected parties (I&AP's) representing the following sectors of society were identified:

- National, provincial and local government;
- Landowners;
- Department: Agriculture, Rural Development, Land and Environmental Affairs
- Department of Water and sanitation
- Department of Agriculture Forestry and Fisheries (DAFF)
- South African Heritage Resource Agency
- Industry and mining;
- Commerce

8.2. Formal notification of the application to key Interested and Affected Parties

The project was announced as follows:

- **Newspaper Advert Notice:**
  The project announcement advertisement was published on the 24 of August in the Platinum Weekly Newspaper. The newspaper advert was used to notify all interested and affected parties (I&APs) of the proposed project and for them register as stakeholders for the project. Registered I&APs will be forwarded a draft BAR & EMPr for a 30-day commenting period. Comments received will be included in the final BAR & EMPr to be sent to the Competent Authority.

- **Site notice placement: -**
  In order to inform surrounding communities and adjacent landowners of the proposed development, site notices were erected at visible location around the site and on public place.

Figure 3: Site notice

- **Written notification: -**

I&AP's and other key stakeholders will be sent the Background Information Document (BID) notifying them of the project and the Draft Basic Assessment report will be sent to all registered I&AP's for a 30-day commenting period.

- **Public Meeting: -**

Registered stakeholders and I&APs will also be invited to attend any public meetings.

- **Distribution of Draft BAR and EMPr**

All registered stakeholders and I&APs will be informed of the availability of the Draft Basic Assessment Report and Environmental Management Programme for review.. The stakeholders and I&APs will also be invited to submit their comments regarding the proposed project.

8.3. Summary of issues raised by I&Aps

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

Table 3: Issues raised by Interested and Affected Parties (I&APs)

Interested and Affected Parties	Date Comments Received	Issues raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated.
No comments have yet been received on the draft BAR and EMPr. The draft will be distributed to all I&APs for a 30-day commenting period. The comments from I&AP will be included in the final BAR and EMPr for submission to DMR.				

9. The Environmental attributes associated with the alternatives.

9.1. Geology

According to Mucina & Rutherford (2006), the northern areas that are covered by Central Sandy Bushveld (the vegetation type of the area) are underlain by sedimentary rocks belonging to the Waterberg Group, Mokolian Erathem. These are mostly sandstone, shale and siltstone rocks of the Vaalwater Formation and sandstone, siltstone and conglomerate rocks of the Alma Formation. Large parts of the southern and eastern areas are underlain by granite rocks belonging to the Lebowa Granite Suite and granophyre (fine-grained igneous) rocks belonging to the Rashoop Granophyre Suite. Both of these suites belong to the Bushveld Complex, Vaalian (Mucina & Rutherford, 2006).

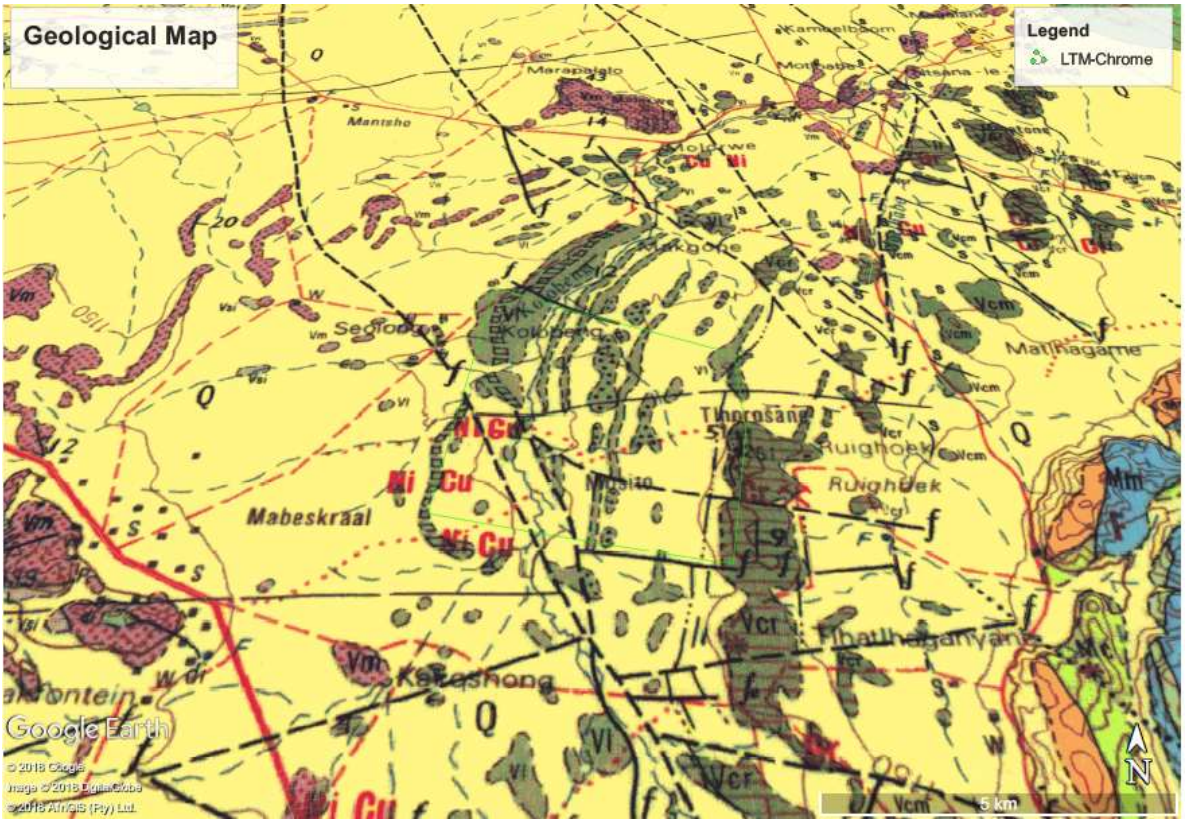

Figure 4: Geological Map

9.2 Regional Climate

9.2.1 Rainfall

The mean annual rainfall at the site area is 401 – 600mm per annum (AGIS, 2007). The figure below shows the annual monthly rainfall of the area for 2012,

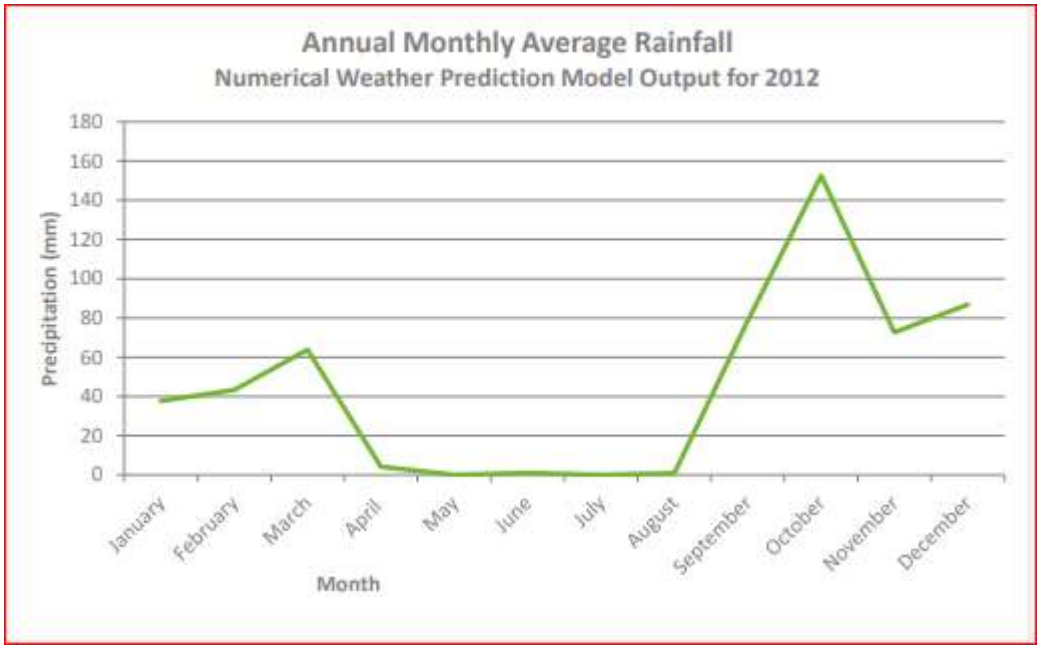

Figure 5: Annual rainfall at the site

9.2.2 Temperature

According to the AGIS Comprehensive Atlas, 2007, the maximum mean annual temperature for the site is between 29.1°C and 31°C and the minimum mean annual temperature for the site area is between 2.1°C and 4°C. The figure below shows the annual monthly average temperature of the area

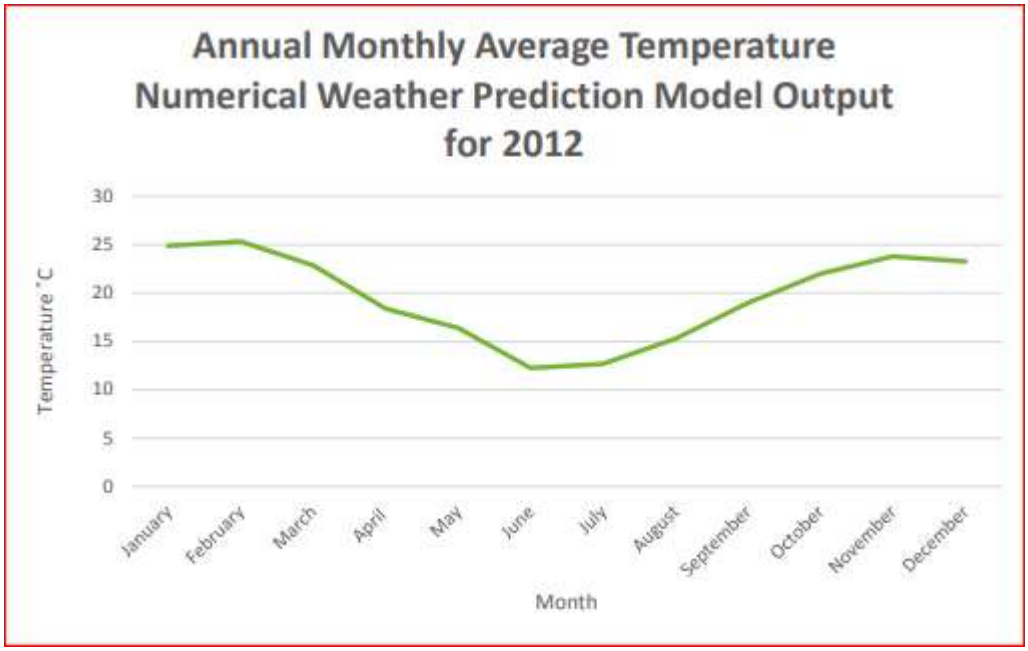

Figure 6: Annual monthly average temperature at the site

9.3 Soil and Land capability

Soil forms found within the mining right area are predominately highly structured, relatively shallow soils with a high clay content which allows for high water retention. These soil forms are therefore not highly erodible but are susceptible to compaction as a result of water retention and swelling clays. Poor drainage capacity of these soil forms reduces the dry agricultural production potential as well as the irrigation potential.

Figure 7: Soil type of the area

9.4 Topography

The area is characterized by a combination of flat plains and isolated koppies. The average elevation of the project area is 1 100 metres above mean sea level (m amsl). There are several isolated koppies to the north of the mine area. These vary between 1 197 and 1 266 m amsl. To the south and east of the mine is the Pilanesberg National Park and the associated hills that vary between 1330 and 1534 m amsl

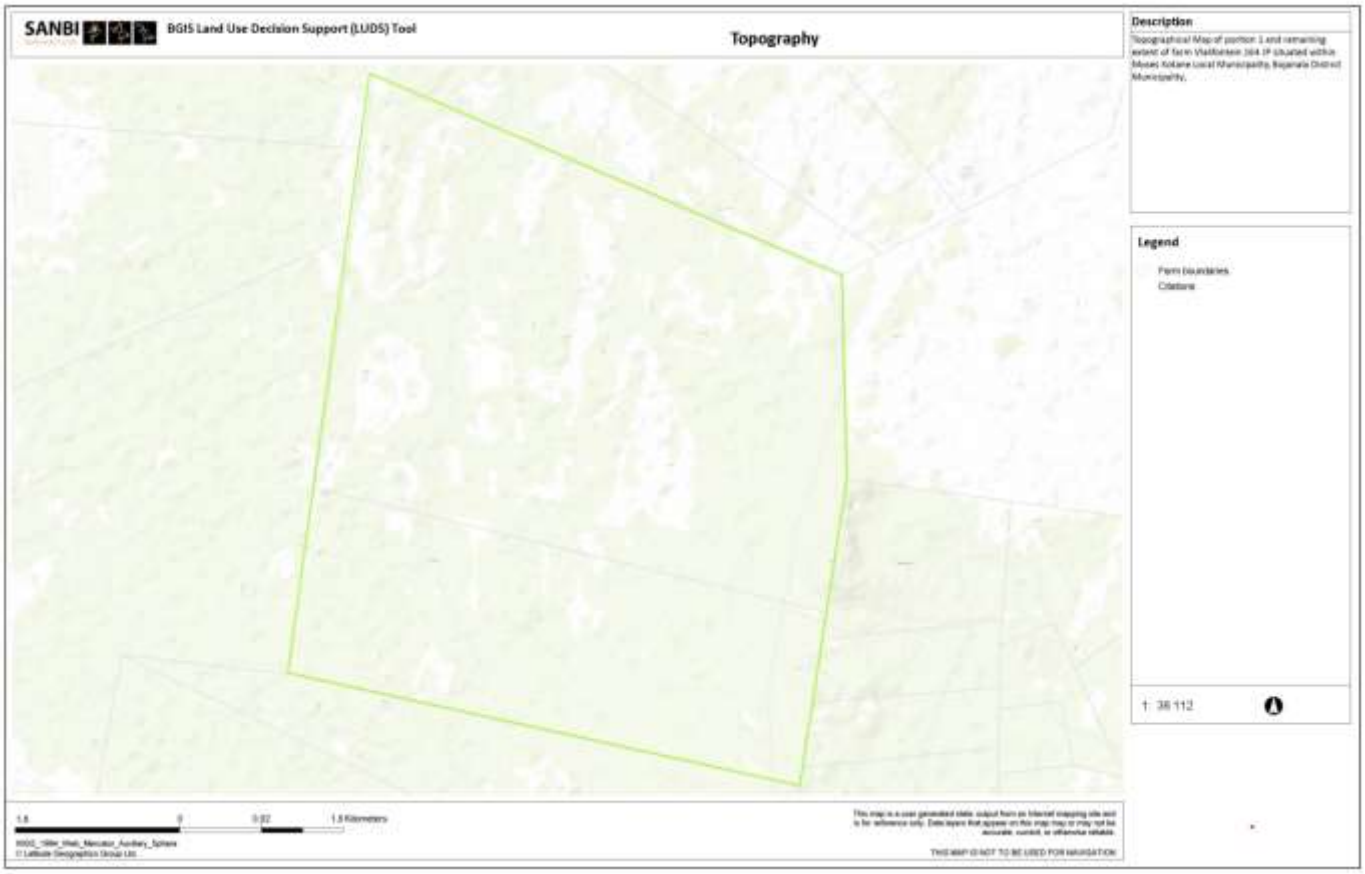

Figure 8: Topography and contours for the proposed prospecting activity

9.5 Hydrology

9.5.1 Surface Water

The site is located in the Limpopo Basin, in the catchment of the Crocodile River. The chrome project area falls within the A24D quaternary catchment. The chrome project area is drained by the non-perennial Motlhabe River, which flows into the perennial Kolobeng River. The Kolobeng in turn flows into the perennial Bierspruit which then flows into the Lower Crocodile River to the west of Thabazimbi.

9.5.2 Ground Water

Groundwater in the project area varies between 8.14 and 33.8 m below ground level (mbgl) with an average of 22.5 mbgl. The overall water quality of the area is characterised by higher than average magnesium concentrations and high fluoride concentrations. The latter is expected due to runoff and groundwater through-flow from the neighboring alkaline complex of the Pilanesberg. The majority of the communities in the area rely on groundwater for domestic purposes.

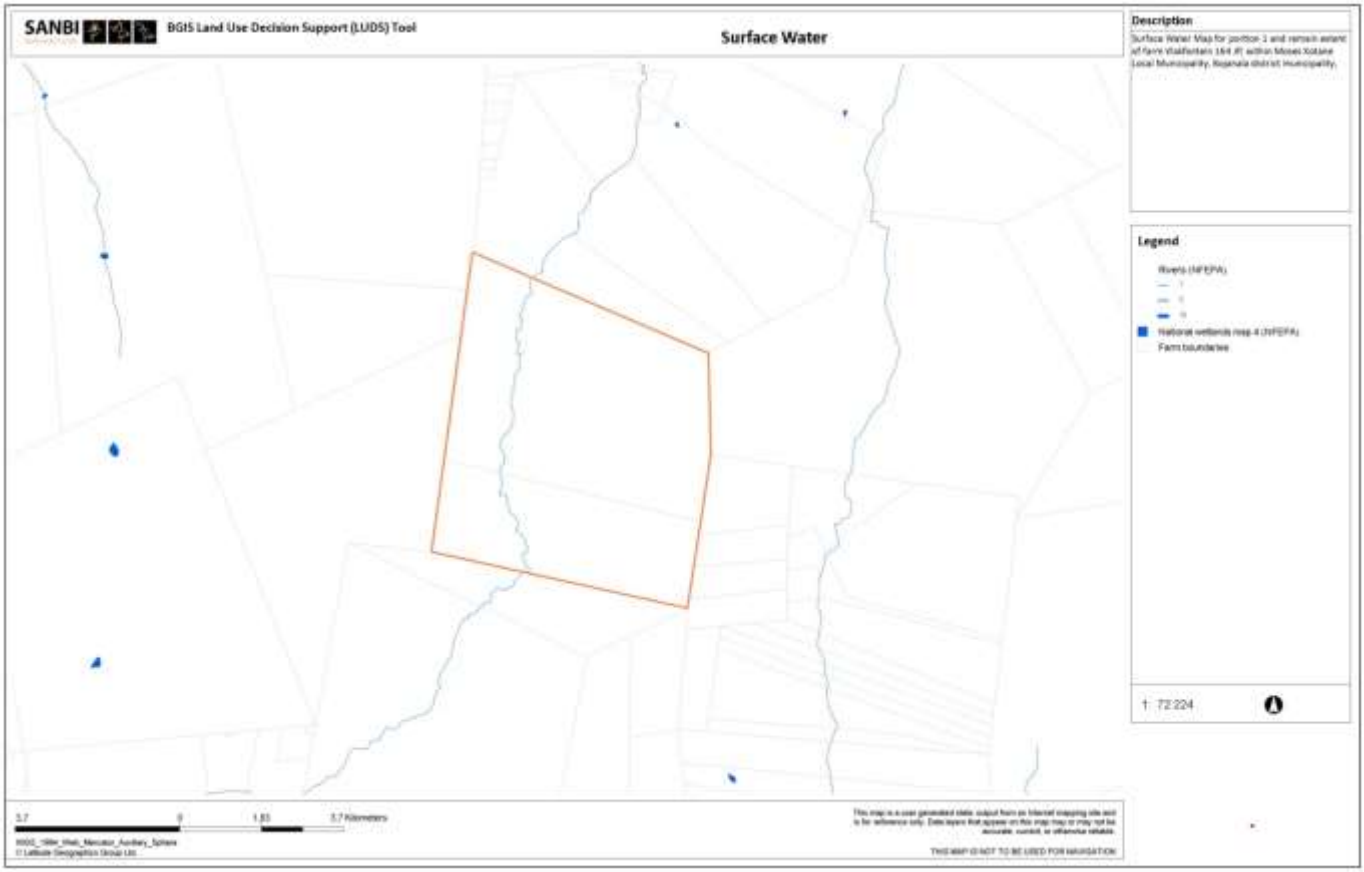

Figure 9: Surface hydrology for Vlakfontein 164 JP

9.6 Biodiversity

According to the North West Biodiversity Site Inventory (NW DACET, 2003), the project site is situated within the Dwaalboom Thornveld vegetation type, which includes the Mabeskraal Ridge Bushveld (Sourish Mixed Bushveld [Acocks 1998]). The Mabeskraal Ridge Bushveld is one of the critically important habitat types of the province. It is a very limited vegetation type, restricted to a few ridges and hills in a vast plain with clay soils. There are a number of conservation important faunal and floral species that could be located within the project area as it a broad expansive area however before commencement of the prospecting activities a detailed sensitivity map will be compiled indicating sensitive areas to be avoided.

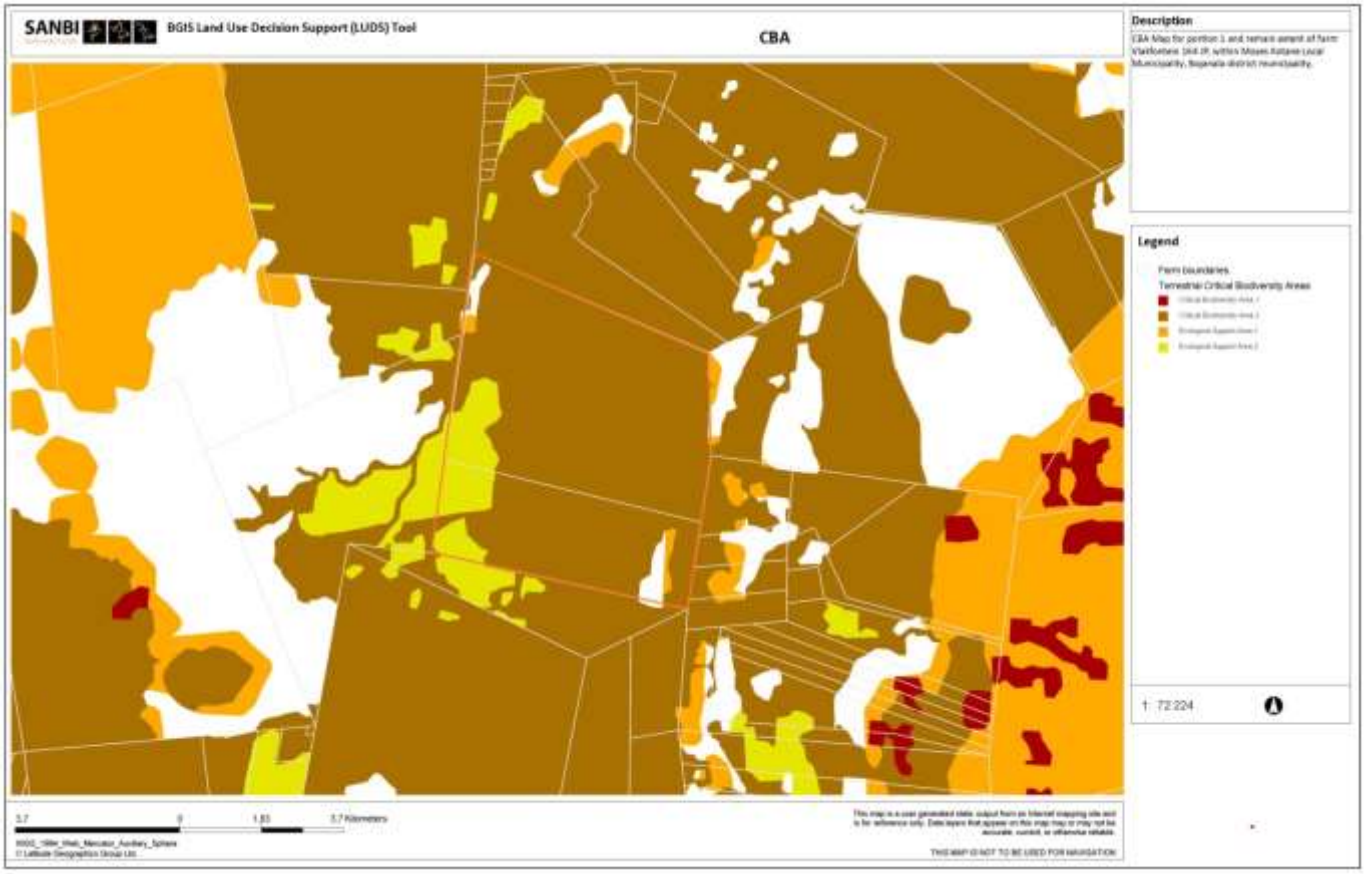

Figure 10: Vegetation and Biodiversity cover of Vlakfontein 164 JP

9.7 Demography

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.

Table 4:Population size of Moses Kotane Local Municipality

Population groups	Male	Female	Total
Black African	118092	120424	238516
Coloured	352	294	620
Indian or Asian	837	363	1200
White	989	840	1829

9.2. Description of the current land uses

The site for the proposed chrome prospecting is currently used for mining and community activities such as grazing.There is also evidence of various excavations that are as a result of old chrome mining activities. Surrounding land uses include residential areas, ecotourism/hospitality related activities (such as Black Rhino Game Reserve and the Pilanesberg National Park), mining and community activities such as grazing and subsistence farming.

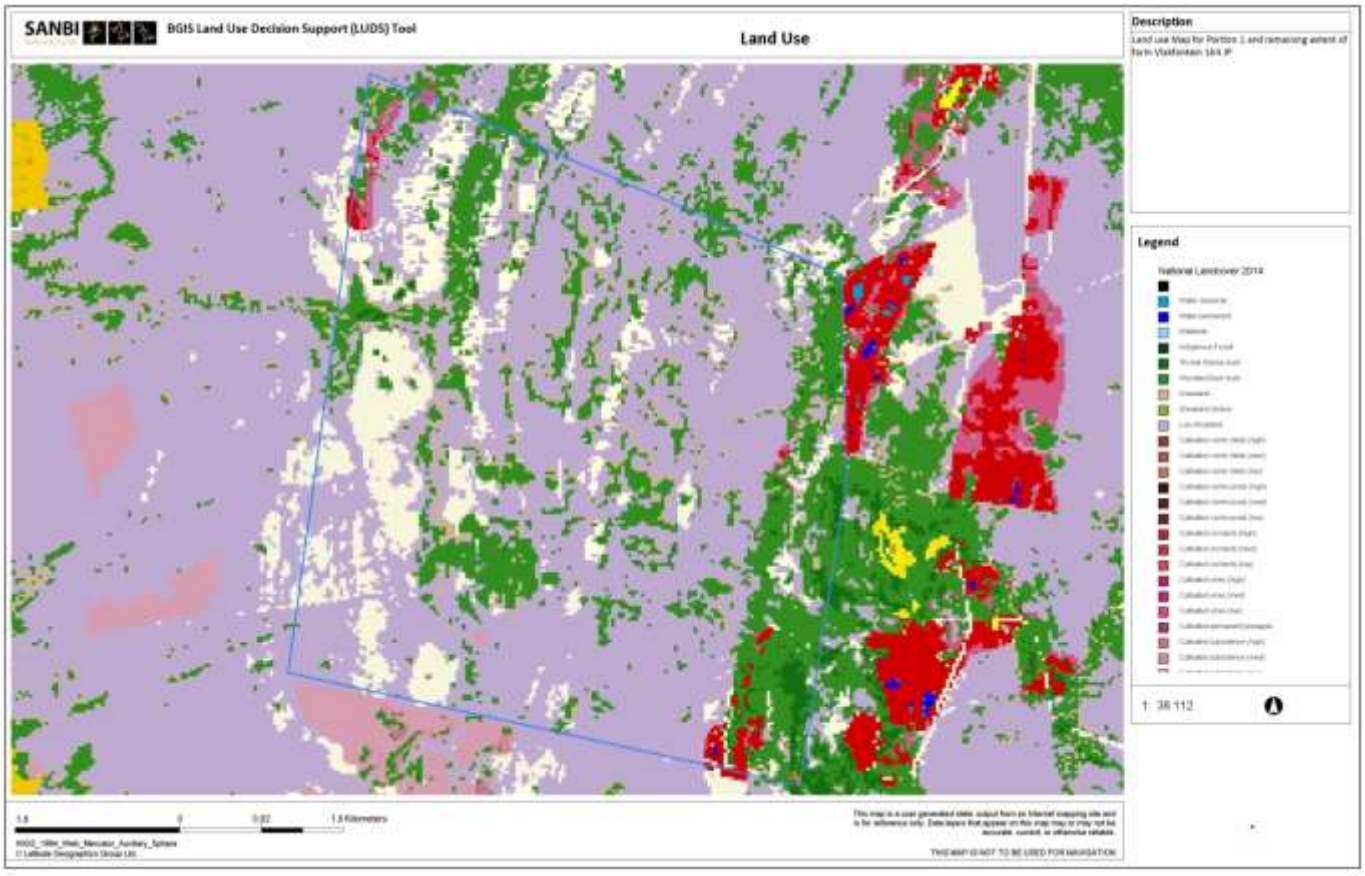

Figure 11: Land Use Map

10. Impacts and risks identified including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts

Table 5: Impacts Identified, phases and description

Impacts	Phase	Description
Policy requirements	Planning	Identification of legislative requirements
Flora	Construction	Destruction / loss of indigenous natural vegetation due to site preparation activities.
Fauna	Construction, Operational	Disturbance of species habitats (i.e. snake holes, spiders, reptiles, etc.)
Groundwater	Construction and Operational	Spillage of fuels, lubricants and other chemicals
Surface Water	Construction and Operational	Dust from moving vehicles and during drilling operations may affected nearby river
Geology	Operational	Removal of rocks and debris for analysis, disturbance of local geological formation.
Soils	Construction and operational	Disturbance of soils during site clearance and during drilling operations
Air Quality	Construction and Operational	Dust stemming from drilling and vehicles going to site
Traffic	Construction and Operational	Increase of traffic in the area as vehicles access the sites

Noise nuisance	Construction and Operational	Noise caused by moving vehicles and drill rigs
Economic	Operational	Project expenditure (incl. direct capital investment)
Socio-economic	Planning Phase	Potential friction with I&APs and Landowners, part time employment opportunities
Visual	Construction, Operational and Decommissioning	Visual disturbances with all the vehicles, signs and drilling rigs.
Cultural/Heritage - historical	Construction and Operational	Disturbance of artefacts of cultural and heritage importance (i.e. unidentified grave sites).
Waste	Construction and Operational Phase	Generation of solid waste on site.

10.1. Methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks;

The potential environmental impacts associated with the project will be evaluated according to its nature, extent, duration, intensity, probability and significance of the impacts, whereby:

- **Nature:** A brief written statement of the environmental aspect being impacted upon by particular action or activity.

- **Extent:** The area over which the impact will be expressed. Typically, the severity and significance of an impact have different scales and as such bracketing ranges are often required. This is often useful during the detailed assessment phase of a project in terms of further defining the determined significance or intensity of an impact. For example, high at a local scale, but low at a regional scale;

- **Duration:** Indicates what the lifetime of the impact will be;

- **Intensity:** Describes whether an impact is destructive or benign;

- **Probability:** Describes the likelihood of an impact actually occurring; and
- **Cumulative:** In relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

Table 6: Criteria for evaluating potential environmental impacts

CRITERIA	DESCRIPTION			
Extent	**National (4)** The whole of South Africa	**Regional (3)** Provincial and parts of neighbouring provinces	**Local (2)** Within a radius of 2 km of the construction site	**Site (1)** Within the construction site
Duration	**Permanent (4)** Mitigation either by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient	**Long-term (3)** The impact will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter. The only class of impact which will be non-transitory	**Medium-term (2)** The impact will last for the period of the construction phase, where after it will be entirely negated	**Short-term (1)** The impact will either disappear with mitigation or will be mitigated through natural process in a span shorter than the construction phase

Intensity	**Very High (4)** Natural, cultural and social functions and processes are altered to extent that they permanently cease	**High (3)** Natural, cultural and social functions and processes are altered to extent that they temporarily cease	**Moderate (2)** Affected environment is altered, but natural, cultural and social functions and processes continue albeit in a modified way	**Low (1)** Impact affects the environment in such a way that natural, cultural and social functions and processes are not affected
Probability of Occurrence	**Definite (4)** Impact will certainly occur	**Highly Probable (3)** Most likely that the impact will occur	**Possible (2)** The impact may occur	**Improbable (1)** Likelihood of the impact materialising is very low
Impact Reversal	**Highly Impossible (4)** Impact reversal will certainly be impossible	**Moderate (3)** Impact can be reversed to some extent with loss of natural resources	**Possible (2)** High possibility of impact reversal	**Definite (1)** Impact can be totally reversed
Loss of irreplaceable resources	**Definite (4)** Resources definitely be lost	**Highly Probable (3)** Most likely that resources will be lost	**Possible (2)** Resources may be lost	**Improbable (1)** Loss of resources is highly unlikely

Significance is determined through a synthesis of impact characteristics. Significance is also an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The total number of points scored for each impact indicates the level of significance of the impact.

Significance=Extent+ Duration +Intensity x Probability

Table 7: Criteria for Rating of Classified Impacts

Low impact/ Minor (3 -10 points)	A low impact has no permanent impact of significance. Mitigation measures are feasible and are readily instituted as part of a standing design, construction or operating procedure.
Medium impact/ Moderate (11 -20 points)	Mitigation is possible with additional design and construction inputs.
High impact (21 -30 points)	The design of the site may be affected. Mitigation and possible remediation are needed during the construction and/or operational phases. The effects of the impact may affect the broader environment.
Very high impact/ Major (31 - 48 points)	Permanent and important impacts. The design of the site may be affected. Intensive remediation is needed during construction and/or operational phases. Any activity which results in a “very high impact” is likely to be a fatal flaw.
Status	Denotes the perceived effect of the impact on the affected area.
Positive (+)	Beneficial impact.
Negative (-)	Deleterious or adverse impact.
Neutral (/)	Impact is neither beneficial nor adverse.
It is important to note that the status of an impact is assigned based on the status quo – i.e. should the project not proceed. Therefore not all negative impacts are equally significant.	

The suitability and feasibility of all proposed mitigation measures is included in the assessment of significant impacts. This was achieved through the comparison of the significance of the impact before and after the proposed mitigation measure is implemented.

10.2. The positive and negative impacts that the proposed activity (in terms of the initial site layout) and alternatives will have on the environment and the community that may be affected.

At this moment there is no alternative layout, should the comments from I&Aps and other relevant stakeholders warrants that we change the layout or have alternative, those comments will be addressed accordingly. The project will have minimal impacts on the environment, about 12 exploration holes will be drilled, this should be viewed in the context that the drilling sites are 0.175 Ha in comparison to the 2946.49 Ha that is being applied; the impacts will be very minimal. The impacts associated with drilling can be mitigated and after drilling has been completed; the drill pads will be rehabilitated to predrilling status.

Table 8: Positive and Negative Impacts

Impacted Environment	**Impact**	**Status of impact**
CONSTRUCTION PHASE		
Fauna and Flora	Destruction / loss of indigenous natural vegetation and plant species during site preparation	Negative
	Impact on animal species	Negative
	Establishment and spread of declared weeds and alien invader plants	Negative
Water resource	Damage to surface water and groundwater resulting in hydrological impacts	Negative
Air Quality	Dust emissions	Negative
Soils	Physical disturbance of soils during land clearing	Negative

Impacted Environment	**Impact**	**Status of impact**
Socio Economic	Direct employment and skills development	Positive
Visual aspect	Visual Disturbance (vegetation clearance and temporary infrastructures including equipment on site)	Negative
Cultural/Heritage-historical resources	Potential impact on heritage and archaeological resources	Negative
Waste generation	Generation of solid waste (e.g. littering)	Negative
OPERATIONAL PHASE		
Soils	Physical disturbance of soils during land clearing	Negative
Social	Disturbance of surrounding landowners	Negative
	Direct employment and skills development	Positive
Water resource	Damage to surface water and groundwater resulting in hydrological impacts	Negative
Geology	Physical removal of rock material for logging and sampling purposes during drilling phase	Negative
Cultural-historical resources	Potential impact on heritage resources and archaeological resources	Negative
DECOMMISSIONING		
Air quality	Dust emissions	Negative

Impacted Environment	Impact	Status of impact
Soil	Soil degradation	Negative

10.3. The possible mitigation measures that could be applied and the level of risk

Possible mitigation measures to address issues and concerns raised by I&APs (if any) will be addressed following the 30 day public participation period of the Draft Basic Assessment Report

10.4. Motivation where no alternative sites were considered.

The nature of the proposed activity dictates the proposed site location. The applicant has done preliminary studies that indicated that chrome can only be found within the proposed area.

10.5. Statement motivating the alternative development location within the overall site.

Since exploration is temporary in nature no permanent structures will be constructed, negotiations and agreements will be made with the farm owners to use any existing infrastructure like accommodation for the explorers, access roads and other things like Workshops. In addition to the information provided, each of the phases is dependent on the results and success of the preceding phase. The location and extent of soil sampling and possible drilling will be determined based on information derived from the geophysics surveys. Sampling and drill sites will be selected to avoid water courses where practicable.

11. Environmental Impact Assessment

Table 9: Environmental Impact Assessment

Impact pathway	Nature of potential impact/risk	Phase impact occurs	Before Mitigation				Significance of impact	Reversibility of impact	Irreplaceability of receiving environment/ resource	Potential mitigation measures	After Mitigation				Ranking of impact/ risk
			E	D	I	P					E	D	I	P	
Non-compliance with legislative requirements	Non commencement/ delayed commencement of proposed project	Planning	3	4	3	2	(-20)	Yes	N/A	Comply with all legislative requirements as stipulated in the EIA 2017 regulations	1	1	1	2	(6)
Destruction loss of indigenous natural vegetation	Habitat and loss of species	Construction and Operational	1	1	3	3	(-15)	Yes	Moderate	Appoint an Environmental Control Officer (ECO) prior to commencement of construction phase. Responsibilities should include, but not necessarily be limited to, ensuring adherence to EMPr	1	1	2	2	(-8)
	Alien plant invasions in disturbed areas	Construction and Operational	1	1	2	2	(-8)	Yes	Low		1	1	1	2	(-6)

Impact pathway	Nature of potential impact/risk	Phase impact occurs	Before Mitigation				Significance of impact	Reversibility of impact	Irreplaceability of receiving environment/ resource	Potential mitigation measures	After Mitigation				Ranking of impact/ risk
			E	D	I	P					E	D	I	P	
Disturbance of soils	Exposed soils susceptible to erosion	Construction and Operational	1	1	2	2	(-8)	Yes	Low	guidelines, guidance of activities, planning, reporting to authorities. Conduct a search and rescue operation for all conservation important plants on the site. This operation should be conducted during the austral summer period when vegetative and reproductive	1	1	1	2	(-6)
Impacts on indigenous plant species	Plant species are especially vulnerable to infrastructure development due to the fact that they cannot move out of the path of the construction activities, but are also affected by overall loss of habitat.	Construction and Operational	1	2	2	2	(-10)	Yes	Low		1	2	1	1	(-4)

Impact pathway	Nature of potential impact/risk	Phase impact occurs	Before Mitigation				Significance of impact	Reversibility of impact	Irreplaceability of receiving environment/ resource	Potential mitigation measures	After Mitigation				Ranking of impact/ risk
			E	D	I	P					E	D	I	P	
Fauna	Faunal mortality and displacement	Construction and Operational	1	1	2	3	(-12)	Yes	Moderate		2	1	1	2	(-8)
Geology	Permanent removal of rocks and geological formations	Operational	1	4	2	4	(-28)	No	High	Cap off and cement drill hole	1	3	1	3	(-15)
Groundwater quality	The prospecting operations will require the drilling of boreholes. The boreholes may result in the drawdown, which may affect the yield to the surrounding groundwater users.	Operational	2	1	3	3	(-18)	Yes	Moderate	Groundwater monitoring network (both quality and quantity) should be established. Any spillage should be cleaned using spillage kit	2	1	2	2	(-10)

Impact pathway	Nature of potential impact/risk	Phase impact occurs	Before Mitigation				Significance of impact	Reversibility of impact	Irreplaceability of receiving environment/ resource	Potential mitigation measures	After Mitigation				Ranking of impact/ risk
			E	D	I	P					E	D	I	P	
	Material used for backfilling may leach pollutants that will result in the pollution of the surrounding groundwater regime.									Ensure that the land owners' borehole yield are observed during the drilling operation. Should it be proven that the operation is indeed affecting the quantity and quality of groundwater available to users and surrounding water resources, the affected parties must be compensated					
Air quality	Increase in traffic on unpaved roads and drilling activities will increase levels of dust generated on site.	Construction, Operational and Decommissioni	2	1	2	3	(-15)	No	Moderate	Use of grey water for dust spraying and wetting, proper grading of roads and keeping traffic to a reasonable level	2	1	2	2	(-10)

Impact pathway	Nature of potential impact/risk	Phase impact occurs	Before Mitigation				Significance of impact	Reversibility of impact	Irreplaceability of receiving environment/ resource	Potential mitigation measures	After Mitigation				Ranking of impact/ risk
			E	D	I	P					E	D	I	P	
	Greenhouse gases emitted from drilling machinery and vehicles used on site, could contribute to reduced levels of air quality.	ng								Keep within Regulated acceptable emissions standards and consider cumulative impacts					
Project expenditure (incl. direct capital investment)	Investment and growth in local economy	Construction and Operational Phase and decommissioning	2	1	2	4	(20)	No	Moderate	None	2	1	2	4	(20)

Impact pathway	Nature of potential impact/risk	Phase impact occurs	Before Mitigation				Significance of impact	Reversibility of impact	Irreplaceability of receiving environment/ resource	Potential mitigation measures	After Mitigation				Ranking of impact/ risk
			E	D	I	P					E	D	I	P	
Noise disturbance	Noise generated from prospecting operations activities may add to the current noise levels. This may have impacts on surrounding property owners and occupiers.	Construction and Operational	2	3	2	2	(-14)	No	High	Adapted project design to minimise noise levels	1	2	2	2	(-10)

Impact pathway	Nature of potential impact/risk	Phase impact occurs	Before Mitigation				Significance of impact	Reversibility of impact	Irreplaceability of receiving environment/ resource	Potential mitigation measures	After Mitigation				Ranking of impact/ risk
			E	D	I	P					E	D	I	P	
Visual Disturbance	The activities undertaken during the construction or and associated infrastructure will be visible from the nearby roads and properties. However, due to the undulating topography, visibility for the most part will most probably be restricted to short distances.	Construction, Operational and Decommissioning	1	2	3	2	(-12)	Yes	High	Inform the land owner on the type of machinery and equipment to be used at the prospecting site. Ensure that lighting is conducted in manner that will reduce the impacts on visual aspects at night times.	1	1	2	2	(-8)
Surface Water	The drilling operations may result in the generation of surface water runoff contaminated with drilling muds and cuttings should spillages	Construction and Operational	3	2	2	3	(-21)	Yes	Moderate	No prospecting operations will be undertaken within 100 metres from the nearby steams and 32 meters from the nearby wetland areas.	2	2	1	2	(-10)

Impact pathway	Nature of potential impact/risk	Phase impact occurs	Before Mitigation				Significance of impact	Reversibility of impact	Irreplaceability of receiving environment/ resource	Potential mitigation measures	After Mitigation				Ranking of impact/ risk
			E	D	I	P					E	D	I	P	
	occur. The sedimentation and possible contamination with carbonaceous material will have negative impacts on the surrounding clean water environment. These will cause an increase in the turbidity and will decrease acidity of the water in the streams, which will affect the aquatic habitat of the wetland, hence important habitats may be lost.									The sumps will be excavated for the collection mud and excess water from the drilling sites. The sump will be sized such that it will be able to contain the water and mud that will be generated during the prospecting operation. Storm water generated around the drilling site will be diverted away to the clean water environment. No concrete mixing and vehicle maintenance will be allowed on site. All hydrocarbons will be stored on protected					

Impact pathway	Nature of potential impact/risk	Phase impact occurs	Before Mitigation				Significance of impact	Reversibility of impact	Irreplaceability of receiving environment/ resource	Potential mitigation measures	After Mitigation				Ranking of impact/ risk
			E	D	I	P					E	D	I	P	
										storage areas away from the streams and wetlands.					
Socio-economic	Potential friction with local communities who do not want another mine in their area as previous mines did not fulfil social commitments	Planning, Construction, Operational, decommissioning	3	2	2	2	(-14)	Yes	N/A	Public consultations which will increase public awareness about the difference between prospecting activities and mining activities	1	2	1	1	(-4)

Impact pathway	Nature of potential impact/risk	Phase impact occurs	Before Mitigation				Significance of impact	Reversibility of impact	Irreplaceability of receiving environment/ resource	Potential mitigation measures	After Mitigation				Ranking of impact/ risk
			E	D	I	P					E	D	I	P	
	Temporary employment opportunities	Operational and decommissioning	2	1	2	3	(+15)	Yes	N/A	none	2	1	2	3	(+15)
Cultural/ Heritage historical impacts	Discovery of gravesites and historical artefacts in the proposed area	Construction and Operational	1	2	1	3	(-15)	Yes	Moderate	Should any paleontological or cultural artefacts be discovered work at the point of discovery must stop, the location be clearly demarcated and SAHRA contacted immediately. Work at the discovery site may only be recommenced on	1	1	1	2	(-6)

Impact pathway	Nature of potential impact/risk	Phase impact occurs	Before Mitigation				Significance of impact	Reversibility of impact	Irreplaceability of receiving environment/ resource	Potential mitigation measures	After Mitigation				Ranking of impact/ risk
			E	D	I	P					E	D	I	P	
										instruction from SAHRA.					

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).

Table 10: Potential impacts and risk

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
Desktop Study	None Identified	N/A	Planning Phase	N/A	No mitigation proposed	N/A
Identification of legislative requirements	Commencement of activities without all the required licenses and permits	Policy and legal Requirements	Planning Phase	High (-ve)	The applicant must ensure that all relevant legislations and regulations have been adhered to before commencement of the project.	Low (-ve)
Set-up of drilling	Clearing of	Flora and	Operational Phase	Low (-ve)	Already cleared areas should be	Low (-ve)

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
Equipment	Vegetation	Fauna			preferred over heavily dense areas	
Set-up of drilling Equipment	Theft	Socio- Economic	Operational Phase	Low (-ve)	The site camp must be secured and entrance into the site must be controlled	Low (-ve)
Preparation of drilling sites and access roads	Loss of Vegetation	Flora and Fauna	Operational Phase	Medium (-ve)	Where possible existing access roads must be used	Low (-ve)
Drilling Activities	Ground & Surface Water contamination	Hydrology	Operational Phase	Medium (-ve)	The drill bits must be maintained in good condition to prevent leakages of oil when in the underground.	Low (-ve)
					Aquifer detection methods should be applied before drilling can be	Low (-ve)

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
					undertaken.	
					Streams must be diverted where alluvial activities are taking place.	Low (-ve)
	Mortality and displacement of fauna	Fauna	Operational Phase	Medium(-ve)	Search and rescue mission should be undertaken for species on drilling site	Low(-ve)
	Waste Generation	Waste Management	Operational Phase	High (-ve)	The mud generated from the drilling activities must be contained, and contaminated mud must be handled separately, treated or disposed of at an appropriate landfill. Skips and marked bins must be provided at the site for waste separation.	Medium (-ve)

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
Drilling Activities	Spillages of hazardous chemicals	Soil & geology; Hydrology	Operational Phase	Medium (-ve)	All substances required for vehicle maintenance and repair must be stored in sealed containers until they can be disposed of / removed from the site. All drill holes must be capped off and closed off with cement.	Low (-ve)
				Medium (-ve)	Hazardous substances / materials are to be transported in sealed containers or bags.	Low (-ve)
				Medium (-ve)	Spillages must be attended to as soon as they occur. Depending on the nature and extent of the spill, contaminated soil must be either excavated or treated on-	Low (-ve)

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
					site.	
	Destruction of Heritage Resources	Cultural and Heritage Social	Operational Phase	Medium (-ve)	Should any paleontological or cultural artefacts be discovered work at the point of discovery must stop, the location be clearly demarcated and SAHRA contacted immediately. Work at the discovery site may only be recommenced on instruction from SAHRA.	Low (-ve)
Decommissioning of Site Camp	Waste generation	Waste management	Decommissioning Phase	Medium (-ve)	The uncontaminated stockpiled materials must be used for backfilling	Low (-ve)
Decommissioning of Site Camp	Contamination of the	Soil and Hydrology	Decommissioning Phase	Medium (-ve)	The hazardous substances onsite must be stored in marked	Low (-ve)

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
	Soil and Water				containers. All the equipment must be shipped out of the site The compacted soils must be loosened and topsoil spread on top, and also spreading seeds of indigenous species.	

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):-

No specialist studies required.

14. Environmental impact statement

14.1. Summary of the key findings of the environmental impact assessment;

In nature impacts associated with prospecting are non – invasive and will have very low impacts in the environment or socially. Usually the impacts caused during the prospecting activity can be reversed or rehabilitated. The invasive impacts that can be envisaged is the drilling of 12 exploration holes which collectively may amount to 0.12 Ha which makes up to less than 1% of area that is applied for which is 2946.49 Ha

The proposed prospecting operation will not affect any existing alternative land uses on the property or on adjacent property or non-adjacent property. The following actions are subject to the proposed mitigation measures and require monitoring:

- The clearing of vegetation
- The storage of hydrocarbon-based materials on site
- On-site waste management
- The creation of roads/tracks
- The removal of storage and soil
- The traversing of vehicles through populated areas within the prospecting area
- Groundwater: Monitor the water quality of the boreholes
- Surface Water: Monitor water quality of the stream and stream flow

Monitoring of the required mitigation measures is to take place on site daily by the site geologist. Annual monitoring audits are to take place by an appointed independent environmental assessment practitioner.

14.2. Final Site Map

The exact location of drilling points cannot be pinpointed as the prospecting activities are conducted in phases, and each phase depends on the success of the previous phase. The drill points must be identified after the geophysical surveys have confirmed the presence of the ore body. The sensitive areas will be identified during the planning phase of the project and no activities will be undertaken at any sensitive area. A detailed map can be produced after the geophysical surveys has been undertaken, although the map will be subjected to changes depending on the results of the preliminary drilling and assaying

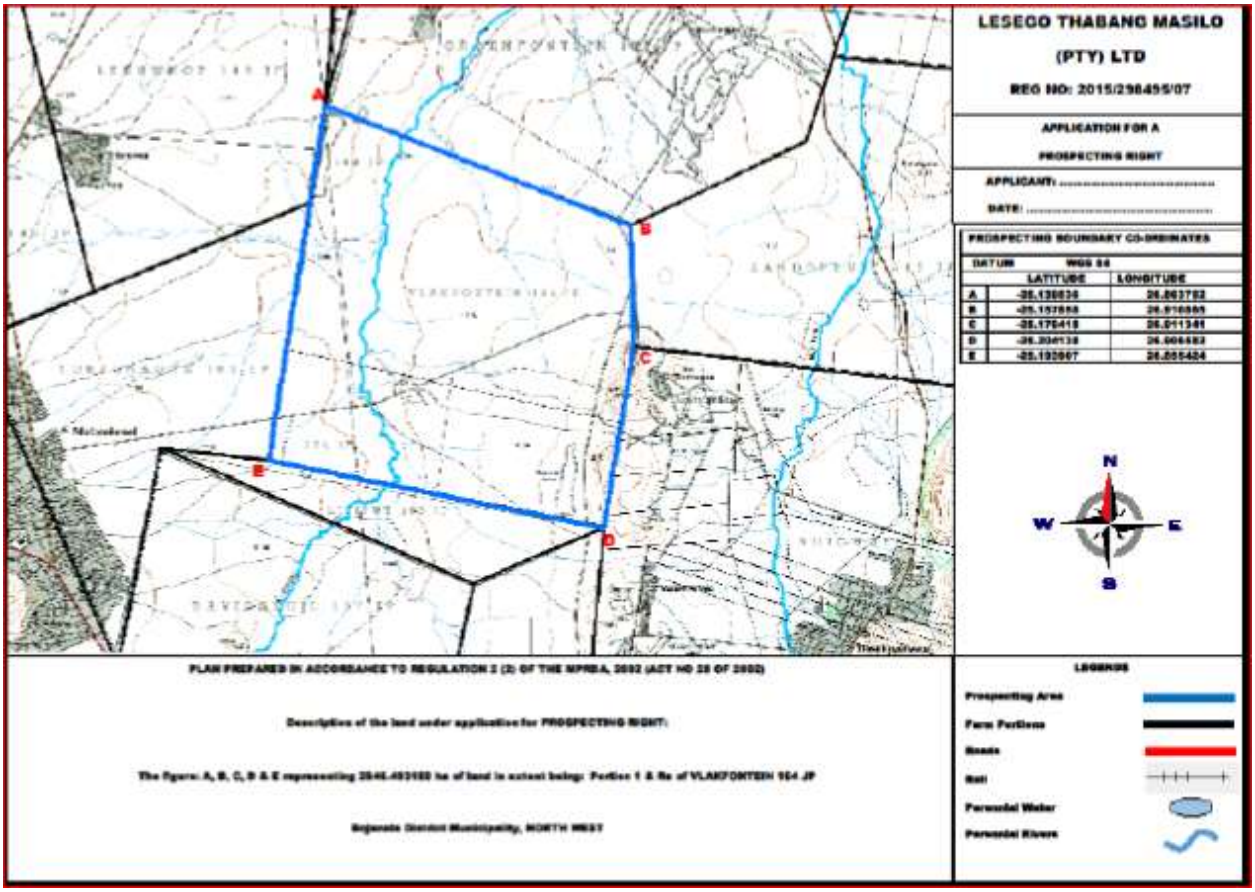

Figure 12: Final Site Map for Vlakfontein 164 JP

14.3. Summary of the positive and negative impacts and risks of the proposed activity and identified alternatives

Positive and negative impacts associated with the proposed prospecting activities include:

- Destruction / loss of indigenous natural vegetation during site preparation
- Impacts on plant species of concern during site preparation
- Impacts on fauna
- Establishment and spread of declared weeds and alien invader plants
- Physical disturbance of soils during land clearing
- Dust emissions
- Disturbance of the geological formation due to removal of rock material.

- Direct employment and skills development
- Impact on groundwater system during invasive phase of the proposed development.
- Impact on surface water
- Visual Disturbance
- Physical disturbance of soils during land clearing
- Disturbance of surrounding landowners activities and/or livelihoods
- Direct employment and skills development
- Potential impacts on heritage resources and archaeological resources

The proposed activities have low significance since these are short term activities, however socio-economic impacts such as employment has a medium significance. The probability of occurrence of an impact was determined and most of these activities can be controlled and impacts can be reduced or avoided. Generally prospecting activities have low impact on the environment. The planned activities negative impacts can be controlled and avoided or minimised therefore the layout does not require revision. Mitigation measures will be utilised to control, avoid and/or minimise all identified potential impacts.

15. Proposed impact management objectives and the impact management outcomes for inclusion in the EMPr;

The EMPr will seek to achieve a required end state and describe how activities could have an adverse impact on the environment will be mitigated, controlled and monitored. The EMPr will address the environmental impacts during the Pre-construction, Construction, Operational, and Decommissioning Phases of the proposed project. Due regard will be given to environmental protection during the entire project. A number of environmental recommendations will therefore be made to achieve environmental protection. The environmental and social objectives will be set to allow prospecting in an environmental and socially responsible manner while ensuring that sustainable closure can be achieved. To achieve closure, the correct decisions need to be taken during the planning phase of the project.

The overall goal for environmental management for the proposed is to construct and operate the project in a manner that:

- Minimises the ecological footprint of the project on the local environment;
- Facilitates harmonious co-existence between the project and other land uses in the area;

- Contributes to the environmental baseline and understanding of environmental impacts of Prospecting activities in a South African context.

The following environmental management objectives are recommended for the proposed mineral prospecting development and associated infrastructure:

- Monitor soils so as to avoid unnecessary erosion, and implement erosion control measures to preserve the quality of the soil for rehabilitation.
- Development planning must restrict the area of impact to minimum and designated areas only.
- Monitor and prevent contamination, and undertake appropriate remedial actions.
- Limit the visual and noise impact on receptors.
- Avoid impact on possible heritage and archaeological resources.
- Promote health and safety of workers.
- Limit dust and other emissions to within allowable limits

16. Aspects for inclusion as conditions of Authorisation

Lesego Thabang Masilo (Pty) Ltd should comply with all Environmental legislations. Specific environmental legislation to be adhered to include; National Environmental Management Act, Act 107 of 1998 (NEMA) as amended in 2017 and Minerals and Petroleum Resources Development Act, Act 28 of 2002 (MPRDA):

- Notice must be given to landowners and surrounding landowners 1 month prior to any prospecting activities.
- Maintain a minimum 500m buffer from any infrastructure or dwelling (schools, churches, homes);
- Landowners and land occupiers should be engaged (re-consulted) at least 1 month prior to any site activities being undertaken once drill sites are known;
- A map detailing the drilling locations should be provided to the landowners as well as the DMR prior to commencement of prospecting activities.
- Record must be kept of the implementation of the EMPr measures and monitoring of the efficiency of the implemented measures; and
- A buffer of 50m from any wetlands and/or water courses should be established during the construction and operational phase.

17. Description of any assumptions, uncertainties and gaps in knowledge

- The EAP does not accept any responsibility in an event that additional information comes to light at a later stage of the process
- All information provided by the EAP was correct at the time it was provided
- The data from unpublished researches is valid and accurate
- The scope of this investigation is limited to accessing the potential environmental impacts associated with the proposed project.

18. Reasoned opinion as to whether the proposed activity should or should not be authorised

Based on the site investigations and analysis of the EAP it is suggested that the proposed activity should be authorised due to the following:

- Monitoring of the required mitigation measures is to take place on site daily by the site Geologist, Annual monitoring audits are to take place by an appointed independent Environmental Assessment Practitioner (EAP) to compile the required annual environmental compliance report required by the DMR
- The environmental impacts associated with the limited drilling activities are minimal provided that the proposed mitigation measures are implemented
- The desktop studies have proven that the site is located on a mineralized zone, prospecting activities must be undertaken to confirm the ore reserves
- The option of not approving the activities will result in a significant loss to valuable information regarding the status of the ore bodies present on these properties.
- In addition to this, should economical reserves be present and the applicant does not have the opportunity to prospect, the opportunity to utilize these reserves for future phases will be lost as well.
- The spatial extent of the physical impact is 0.12 ha over a prospecting right license area of more than 2946.49 ha, 12 drill sites will be established in total throughout the duration of the drilling programme, Therefore the actual footprint to be permanently disturbed is minimal in comparison to the total site area thus only 0.021 % of the area.
- With appropriate care and consideration the impacts resulting from drilling can be suitably avoided, minimised or mitigated
- It has also been noted that mining sector is the pillar of South African economy and also provides employment opportunities for many.

- A buffer of 50 m from wetlands and/or water courses should be established during the operational phase

18.1. Conditions that must be included in the authorisation

- Maintain a minimum 500m buffer from any infrastructure or dwelling (schools, churches, homes);
- Landowners and land occupiers should be engaged (re-consulted) at least 1 month prior to any site activities being undertaken once drill sites are known;
- A map detailing the drilling locations should be provided to the landowners as well as the DMR prior to commencement of prospecting activities.
- Record must be kept of the implementation of the EMPr measures and monitoring of the efficiency of the implemented measures; and
- A buffer of 50m from wetlands and/or water courses should be established during the operational phase.
- A suitable closure plan must be submitted to show sufficiently providence for the avoidance, management and mitigation of environmental impacts associated with the decommissioning of the proposed activities.

19. Period for which the Environmental Authorisation is required.

The Prospecting Right has been applied for a period of five (5) years. The Environmental Authorisation should therefore allow for the five years of prospecting and one year for decommissioning and rehabilitation

20. 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. The undertaking provided at the end of the EMPr is applicable to both, this Basic Assessment Report and the EMPr in Part B, below

21. Financial Provision

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

A total of R 27 310.35 is required to both manage and rehabilitate the environment in respect of rehabilitation.

21.1. Explain how the aforesaid amount was derived.

The aforesaid amount was derived using the Department of Mineral Resource guideline document for the evaluation of the quantum of closure-related financial provision provided by the applicant.

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

Should a Prospecting Right be granted, (LTM) will make provision for the estimated closure cost by means of a Bank Guarantee or any other means available and accepted by the Competent Authority.

22. Specific Information required by the competent Authority

22.1. Compliance with the provisions of sections 24(4)(a) and (b) read with section 24 (3) (a) and (7) of the National Environmental Management Act (Act 107 of 1998). the EIA report must include the:-

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

Current land uses on the prospecting area, such as grazing, may be temporarily impacted through the presence of closed off areas that drill rigs will operate within. These are however, small areas. These areas will be rehabilitated post drilling activities and the areas will once again become available for grazing and other agricultural activities.

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

Mitigation measures proposed in this report include that no drill site will be located within 100 m of any identified heritage site (which may occur during the prospecting programme) based on the desktop work undertaken. Should any paleontological or cultural artefacts be discovered work at the point of discovery must stop, the location be clearly demarcated and SAHRA contacted immediately. Work at the discovery site may only be recommenced on instruction from SAHRA.

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

This BAR and EMPr has been compiled in accordance with the NEMA (1998), EIA Regulations (2014, amended April 2017) and MPRDA (2002). The EAP managing the application confirms that this BAR and EMPr is being submitted for Environmental Authorisation in terms of the National Environmental Management Act, 1998 in respect of listed activities that have been triggered by application in terms of the Mineral and Petroleum Resources Development Act, 2002 (MPRDA) (as amended). Should the DMR require any additional information, this will be provided upon request. No reasonable or feasible alternatives exist for this Prospecting Right Application and as such, motivation for no alternatives has been provided in the relevant sections above.

PART B: ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

1. Draft environmental management programme.

1.1. Details of EAP

The details of the EAP are provided in section 1.1 of part A of this document

2. Description of the Aspects of the Activity

The requirement to describe the aspects of the activity that are covered by the draft environmental management programme is already included in PART A

3. Composite Map

None at this stage.

3.1. Description of Impact Management objectives including management statements

Determination of closure objectives.

- Rehabilitation of areas disturbed as a consequence of prospecting to a land capability that will support and sustain a predetermined post-closure land uses;
- Removal of all infrastructure/equipment that cannot be beneficially re-used, as per agreements established, and returning the associated disturbed land to the planned final land use;
- Removal of existing contaminated material from affected areas;
- Establishment of final landforms that are stable and safe in the long run;
- Establishment and implementation of measures that meet specific closure related performance objectives;

Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option

3.1.1. Volumes and rate of water use required for the operation

Volumes of water cannot be determined at this point

3.1.2. Has a water use licence has been applied for?

No water use license application has been lodged as there are no water resources that will be affected by the proposed project. No groundwater will be used or abstracted during the prospecting operations. Moreover, a buffer of 50m from wetlands and water courses shall be established during the operational phase.

3.2. Impacts to be mitigated in their respective phases, Impact Management Outcomes and Impact Management Actions

Measures to rehabilitate the environment affected by the undertaking of any listed activity

Table 11: Impacts to be mitigated

POTENTIAL IMPACT	ASPECTS AFFECTED	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION	MITIGATION TYPE	STANDARD TO BE ACHIEVED
CONSTRUCTION PHASE						
Site Establishment- access roads, to prospecting sites, establishment of the campsite, physical surveying of the site and pegging of drilling boreholes (0.175 Ha)						
Loss of top soils and soil erosion	Soils, Land Use and Land Capability	Topsoil must be stockpiled immediately after clearing vegetation to prevent erosion of soil through surface runoff and wind. No topsoil or fertile soil (dark soil) may	Rehabilitation in terms of MPRDA and NEMA principles. Applicable guidelines from NEM:BA and Department of Agriculture,	During Construction Phase	Control	Return as close as possible to pre-prospecting environment

		be stored within 32 m of a drainage line, watercourse or wetland Where applicable, construct berms in order to prevent rill erosion and donga formation. All cleared areas and sumps are to be monitored for erosion daily, any erosion forming is to be remediated with immediate effect.	Forestry and Fisheries (DAFF) and Conservation of Agricultural Resources Act (CARA) regarding removal of species General implementation of activities taking Mining and Biodiversity Guidelines into account			
Loss of natural vegetation in the affected areas.	Flora.	Site clearance will be limited to only areas where invasive prospecting activities will be undertaken Ensure minimal disturbance of vegetation when conducting geophysical surveys and geological	Rehabilitation in terms of MPRDA and NEMA principles. Permits to (DAFF) and CARA for removal of species in terms of NEM:BA General implementation of	During Construction phase	Control through visual monitoring and inspection	Adhere to rehabilitation standards and Biodiversity Guidelines

		mapping. No vegetation clearance or tree removal should take place prior to a suitable qualified specialist have identified the species and the necessary permits and licenses have been obtained for removal of protected or endangered species. No crops may be harvested from the farms where work is being undertaken by any member of LTM or contractors of LTM.	activities taking Mining and Biodiversity Guidelines into account			
Migration of animal life due to disturbance caused proposed project	Fauna	Use sites with most degraded environment for the site development. Trapping and killing of fauna will be prohibited at	General implementation of activities taking Biodiversity Act and its guidelines into account.	During Construction phase	Control through visual monitoring and inspection	Minimise impact on fauna

		the prospecting site.				
Deterioration of water quality in the nearby Water courses and within the groundwater regime.	Surface and Ground Water.	Site establishment should not be undertaken within sensitive landscapes, these areas will be avoided. A distance of 32 meters should be kept between stockpiles and water courses Avoid stripping of areas within the construction sites. Rehabilitate areas that may have been mistakenly stripped. Storm water upslope of the campsite and drill sites should be diverted around these areas.	Water management measures in compliance with NWA, 1998 and DWS guidelines	During Construction Phase	Avoid	Minimise the impacts on sensitive areas such as wetlands and streams.
Air pollution through air	Air quality.	Dust suppression will be conducted in areas with	National Environmental Management Air	Throughout Construction Phase	Minimise impact	The dust emissions are not to exceed

pollutants' emissions, from the construction site.		excessive dust emissions. Traffic will be restricted to demarcated areas. Traffic volumes and speeds within the construction site will be controlled. The construction will be undertaken such that the ambient air quality does not exceed the National Air Quality Standards	Quality Act.			the ambient air quality standards for rural areas
Increased noise levels.	Noise aspects	Limit the maximum speed to 60 km/h or less, subject to risk assessment. Less noisy equipment will be used, the equipment will be kept in good working order and the equipment will be fitted with correct and appropriate noise	National Noise Control Regulations, SANS10103:2008 guidelines.	Throughout the construction phase	Minimise impacts	The noise levels from the construction sites will be managed and levels will be within the regulated noise levels as set by the regulations

		abatement measures.				
Visual impacts on the surrounding communities and road users from the construction.	Visual aspects. Neighbouring occupants	Temporary stockpiling of excavated material shall take place in demarcated areas. Stockpiles shall be positioned and sloped to create the least visual impact The prospecting area shall be enclosed to minimise visual disruption from machinery and equipment to be used Lighting will be conducted in a way that will decrease the impacts on visual aspects at night times.	Measures will be undertaken to ensure that the visual aspects from the site comply with the relevant visual standards and objectives including Municipal By Laws.	Throughout the duration of the construction phase	Minimise impact	Ensure that all operations during the construction phase do not result in detrimental visual impacts on surrounding properties, communities and road
Impact from the influx of job seekers and employment of	Socio-Economic Aspect	Recruitment will not be undertaken on site. Farm labourers will not	Measures taken will be in line with the company's recruitment	Throughout Construction Phase	Control	Comply with all national health and safety

farm labourers.		employed unless agreed to with the farm owners. Ensure that all labourers are trained and adhere to all health and safety standards	policies. Occupational Health and Safety Act			standards as well as adhere to the company's recruitment policies.
Excessive Waste generation	Soil and Visual impacts	Minimise littering on site and ensure that all labourers are trained in environmental awareness. Bins (sufficient number and capacity) to store general and hazardous produced on a daily basis shall be provided at each drilling site. The bins are to be animal proof, sealed bins that cannot leak leachate material and waterproof	Waste Management Act	Throughout the construction phase	Avoid	Avoid the excessive generation of general waste during this phase

		that rain water cannot enter into them. Bins shall be emptied on a weekly basis or if there is a nauseous smell coming from them or vectors are breading within them. An integrated waste management approach shall be used, based on the principles of waste minimisation, reduction, re-use and recycling of materials.				
POTENTIAL IMPACT	**ASPECTS AFFECTED**	**MITIGATION MEASURES**	**COMPLIANCE WITH STANDARDS**	**TIME PERIOD FOR IMPLEMENTATION**	**MITIGATION TYPE**	**STANDARD TO BE ACHIEVED**
OPERATION PHASE						

Exploration :Diamond Core drilling of the exploration boreholes, stockpiling, Drilling, use of campsite and rehabilitation of the drilling sites (0.15ha)						
Soils contamination, disruption of the Soil profile Disturbance of ecological systems through destruction of natural vegetation. Loss of Land use	Soils, Land Use, Land Capability and natural vegetation	Ensure that drilling machinery construction vehicles should be are well maintain to avoid spillage of hydrocarbons, to avoid soil and ground water contamination All oil spills will be remedied using approved methodologies Sumps and boreholes should be returned to pre-drilling conditions. All waste generated during drilling ties should be collected and disposed of at a suitable registered waste facility Retain all vegetation cover around drilling sites; the grass is	Rehabilitation in terms of MPRDA and NEMA principles. Operational control procedures (e.g. spill / leak handling). Incident Reporting System; Environmental Inspections; Planned Maintenance System; water quantity (abstraction) monitoring; continued communication with surrounding landowners.	Throughout operational phase	Control	Return as close as possible to pre-prospecting environment

		to be mowed as part of site establishment. No waste material or litter shall be burnt or buried on site. Post operational phase, the land will be returned to its previous state in as much as possible.				
Establishment of campsite and drilling operation may result in contamination of surface water run-off by hydrocarbon fluids and sedimentation	Surface and water	A buffer of 50m from watercourse and wetlands should be maintained during the all prospecting activities Excess water and mud from drilling sites should be stored in sumps that are sizeable enough to contain them Storm water generated around	Water management measures in compliance with NWA,(National Water Act) 1998 and GN 704, 1999.	Throughout operational phase	Minimise	Maintain groundwater quality

		drilling sites should be diverted away from natural water courses Ensure that prospecting activities d not impact negatively on the quality and quantity of groundwater used by surrounding occupants				
Air pollution caused by vehicle emissions and dust	Air Quality	Dust suppression should be practiced during the operational phase Construction vehicles should be regularly maintained in order to minimize greenhouse gas emission	National Environmental Management Air Quality Act	Throughout the operational phase	Control and minimise	Maintain air quality

Wetland-- destruction and loss of aquatic habitat	Aquatic and terrestrial components	There will a buffer of 50m from wetlands and watercourses should be established during the operational phase. Remove or eradicate all alien invasive vegetation growing on stockpiles or in any area of the drilling site footprint.	National Environmental Management Act National Environmental Management Waste t Act National Water Act (NWA) National Environmental Management: Biodiversity Act (NEMBA)	Throughout the operational phase	Avoid	Protect aquatic and terrestrial ecosystems in as far as possible.
Noise impacts	Fauna and Adjacent landowners/ occupants	Provide employees with ear plugs Use equipment that produces minimal noise as far as possible Avoid working outside normal working hours (i.e.	National Noise Control Regulations SANS 10103:2008	Throughout the operational phase	Minimise	Minimal noise

		08:00 to 17:00) and during weekends All machinery and equipment must be maintained in good working order, and fitted with approved and specified muffler systems. Compliance with local by-laws and regulations regarding the noise and hours of operation				
Visual impacts	Neighbouring occupants	Visual screening methods could be used on site to reduce visual impacts. Lighting will be conducted in a manner that will reduce the visual impact at night	National Road Traffic Act	Throughout the operational phase	Control	Minimise visual impacts

		times.				
Impacts on heritage features	Heritage features on-site	No heritage features must be destroyed or removed without a permit in terms of SAHRA. Should any heritage features or remains be discovered, work is to stop, the area is to be demarcated and a qualified Archaeologist is to be contacted and contracted to evaluate the site and apply for the appropriate permit if needed. Once the permit has been obtained from SAHRA the archaeologist is then to supervise the removal or destruction of the item. Once it has been moved or	South African Heritage Resources Agency	Throughout the operational phase	Stop and avoid	Protect heritage features

		destroyed works can continue.				
Health and safety impacts	Socio economic Employees and land occupants	Neighbouring occupants should be warned about any disruptions prior the commencement of the activity Ensure that health and safety measures are put in place to protect employees and neighbouring occupants Provide employees with personal protective Equipment (PPE)	Occupational Health and Safety Act	Throughout the operational phase	Avoid	Avoid health risks and injury incidents
Traffic impacts	Traffic movement	Vehicles that are moving to the site should only move during the day when the is less traffic t in the road	National Traffic Act	Throughout the operational phase	Avoid	Avoid traffic congestion

Introduction of weeds and alien invasive plants	Flora	All sites disturbed by construction activities must be monitored for exotic or invasive plant species and weeds. Site clearance will encourage the introduction of alien invasive plant species, The LTM Contractor should train the labourers on the removal and disposal of alien vegetation (Mechanical and Chemical). Chemical (herbicides) or mechanical removal may be used. If chemical methods are	NEM:BA CARA	Throughout the operational phase	Control and avoid	Control in order to avoid alien plants invasion

		used the method of use is to be undertaken in accordance with manufacturer's specification for the weeds and this method and management is to be approved by the ECO Any eradicated exotic/invasive plant or weed vegetation must be removed from site and disposed of at an approved waste disposal facility or an alternative eradication method approved by the competent authority				
Soil erosion	Soil	Erosion protection measures are to be undertaken. Daily erosion protection	Rehabilitation in terms of MPRDA and NEMA principles.	Throughout the operational phase	Control and Remedy	Ensure that soil erosion is minimised

		monitoring is to take place at each drilling site prior to commencement of the daily works. If any erosion is identified it is to be remediated prior to the commencement of works. Daily erosion checks are to be undertaken on the sump area. If cracks or erosion is identified the side walls are to be battered back to ensure a safe environment for all. Drainage channels must be kept free draining at all times. No pooling of water will be allowed, drainage diversions must be provided to	General implementation of activities taking Biodiversity Act and its guidelines into account			

		prevent scour of the site, and this is also to direct water away from the impacted area to prevent erosion.				
Waste generation	Soil and Visual impacts	Minimise littering on site and ensure that all labourers are trained in environmental awareness. Bins (sufficient number and capacity) to store general and hazardous produced on a daily basis shall be provided at each drilling site. The bins are to be vandal proof, sealed bins that cannot leak leachate material and waterproof that rain water cannot enter into them.	National Environmental Management: Waste Management Act	Throughout the operational phase	Avoid	Avoid the excessive generation of general waste during this phase

		Bins shall be emptied on a weekly basis or if there is a nauseous smell coming from them or vectors are breading within them. An integrated waste management approach shall be used, based on the principles of waste minimisation, reduction, re-use and recycling of materials.				
POTENTIAL IMPACT	**ASPECTS AFFECTED**	**MITIGATION MEASURES**	**COMPLIANCE WITH STANDARDS**	**TIME PERIOD FOR IMPLEMENTATION**	**MITIGATION TYPE**	**STANDARD TO BE ACHIEVED**
DECOMMISSIONING PHASE						
Removal of temporary infrastructure and final rehabilitation of disturbed areas(0.15 Ha)						
Compaction and	Soil	All vehicles and machinery used at the rehabilitation	Rehabilitation in terms of MPRDA	Throughout the Decommissioning	Avoid	Rehabilitation of drilling sites shall be

contamination of soils within the rehabilitation site.		site must be kept in good working order. No repairs of vehicles or machinery will be conducted at the rehabilitation site unless it is emergency repairs, which will be conducted on protected ground. Movement of vehicles and machinery should be limited to demarcated routes, which will be rehabilitated when no longer in use	and NEMA principles. General implementation of activities taking Biodiversity Act and its guidelines into account.	Phase		undertaken in line with closure objectives and in consultation with landowners.
Re-instatement of soil productivity, land capability, land use and topographical patterns.	Soil	Ensure that the soil in the vicinity of the rehabilitation site is not detrimentally impacted. All the waste from demolition must collected from site	Rehabilitation in terms of MPRDA and NEMA principles General implementation of activities taking Biodiversity Act and its guidelines	Throughout the Decommissioning Phase	Avoid	Rehabilitation of drilling sites shall be undertaken in line with closure objectives and in consultation with

		for disposal. Once the area is shaped correctly the compacted areas are to be ripped at 300mm and topsoil is to be replaced. Areas that have not had topsoil striped are to be monitored for alien plant growth and vegetation recovery. If after a year the vegetation has not recovered the area is to be hand seeded with a Highveld indigenous grass	into account.			landowners.
Pollution of surface water environment	Surface water	Ensure that the rehabilitation of the site does not have detrimental impacts on the surface water environment.	The surface water leaving the rehabilitation site will comply with the Department of Water and Sanitation target of water quality	Throughout the Decommissioning Phase	Avoid	Rehabilitation of drilling sites shall be undertaken in line with closure objectives and in consultation

			parameters.			with landowners.
Potential injuries to fauna and residents due to Geological instability.	Geology and social	Ensure that all drill holes have been refilled with rocks and or cement to avoid potential injuries to fauna and residents.	Rehabilitation in terms of MPRDA and NEMA principles Health and safety Act	Decommissioning Phase	Avoid	Rehabilitation of drilling sites shall be undertaken in line with closure objective
Air pollution from rehabilitation site.	Air Quality	Where necessary, wet suppression will be conducted at areas with excessive dust emissions. Vehicles and machinery will be well maintained. The traffic volumes and speed within the rehabilitation site will be controlled	National Environmental Management Air Quality Act	Throughout the Decommissioning Phase	Avoid	Rehabilitation of drilling sites shall be undertaken in line with closure objectives and in consultation with landowners.
Generated noise from the rehabilitation site	Noise	Smaller or less disruptive equipment should, where possible, be used when working near	National Noise Control Regulations, SANS10103:2008 guidelines.	Throughout the Decommissioning Phase	Avoid	Rehabilitation of drilling sites shall be undertaken in line with closure objectives

		receptors. Equipment will be well maintained and fitted with the correct and appropriate noise abatement measures.				and in consultation with landowners. Ensure that the rehabilitation activities does not have detrimental impacts on people.

4. Financial Provision

4.1. Determination of the amount of Financial Provision.

A total of R 27 310.35 is required to both manage and rehabilitate the environment in respect of rehabilitation. LTM must annually update and review the quantum of the financial provision

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

For a prospecting operation such as this, the primary closure and environmental objectives are to:

- Minimise the area to be disturbed and to ensure that the areas disturbed during the prospecting activities are rehabilitated and stable, as per the commitments made in this EMP.
- Sustain the pre-prospecting land use.
- To record and communicate the results of the monitoring programme during decommissioning to the participating stakeholders.

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

The environmental objectives in relation to closure will be consulted with the farmers and affected parties. It will be explained that should the prospecting yield negative results, then the end use for area will revert to its pre-prospecting land use (minutes to be incorporated on the final report). The end-use of the area will therefore not be changed by the prospecting operations.

4.3.1. 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.

Table 12: Rehabilitation Plan

Aspect/ Impact	Rehabilitation Measure	Monitoring Frequency & Responsibility
Removal of construction structures	• Clear and completely remove from site all construction plant equipment, storage containers, signage, temporary services, fixtures and any other temporary works; and • Ensure that all access roads utilised during construction (which are not earmarked for closure and rehabilitation) are returned (as far as possible) to their state prior to construction.	Once-off; LTM (Pty) Ltd.
Vegetation clearing/Replanting	• Remove any emerging alien and invasive vegetation to prevent further establishment; • All planting work is to be undertaken by suitably qualified personnel making use of the appropriate equipment; • Transplant during the winter (between April and September); and • Plant indigenous plants to minimise the spread of alien and invasive vegetation.	When re-vegetation is done and in blooming season; LTM (Pty) Ltd. or sub-contractor appointed
Topsoil replacement	• Replace and redistribute stockpiled topsoil together with herbaceous vegetation, overlying grass and other fine organic matter in all disturbed areas of the prospecting site, including temporary access routes and roads. Replace topsoil to the original depth (i.e. as much as was removed prior to construction). • Prohibiting the use of topsoil suspected to be contaminated	Once-off; LTM (Pty) Ltd.

Aspect/ Impact	Rehabilitation Measure	Monitoring Frequency & Responsibility
	with the seed of alien vegetation. Alternatively, the soil is to be sprayed with specified herbicides. • Where local soil has poor drainage, broken rock (Approx. 75 mm in diameter) must be placed to a depth of 150mm at the bottom of the planting hole prior to planting and backfilling with approved plant medium mixture.	
Waste and Rubble Removal	• Remove from site all domestic waste and dispose of in the approved manner at a registered waste disposal site.	Once-Off; LTM (Pty) Ltd
Solid and Hazardous Waste	• Dispose of all hazardous waste not earmarked for reuse, recycling or resale at a registered hazardous waste disposal site. • Remove from site all temporary fuel stores, hazardous substance stores, hazardous waste stores and pollution control sumps. Dispose of hazardous waste in the approved manner. • Do not hose oil or fuel spills into a storm water drain or sewer, or into the surrounding natural environment. • Dispose of all visible remains of excess cement and concrete after the completion of tasks. Dispose of in the approved manner (solid waste concrete may be treated as inert construction rubble, but wet cement and liquid slurry, as well as cement powder must be treated as hazardous waste).	Once-off; LTM (Pty) Ltd
Erosion protection	• 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. • Retain shrubbery and grass species wherever possible. • Perform regular monitoring and maintenance of erosion control measures.	After rainfall events; LTM (Pty) Ltd. or sub-contractor appointed

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

LTM (Pty) Ltd is required to make the prescribed financial provision for the rehabilitation or management of negative environmental impacts. If the company fails to rehabilitate or manage any negative impact on the environment, the DMR may, upon written notice to the company, use all or part of the financial provision to rehabilitate or manage the negative environmental impact in question. LTM will specify that the appointed contractor is required to comply with all the environmental measures specified in the EMP. This will include avoiding unnecessary disturbance of natural vegetation and the rehabilitation of each drill site, immediately after drilling has been completed. All tracks to the drill sites must be rehabilitated at the end of the prospecting programme. The financial provision provides for the final checking of all sites before site clearance

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

Table 13: Quantum of the financial provision

EAPs: Tshikovha Green & Climate Change Advocates Date: Aug-18

No.	Description	Unit	A Quantity	B Master Rate	C Multiplication factor	D Weighting factor 1	E=A*B*C*D Amount (Rands)
1	**Dismantling of processing plant and related structures (including overland conveyors and**	**m3**	**0**	**14,45**	**1**	**1**	**0**
2 (A)	**Demolition of steel buildings and structures**	**m2**	**0**	**201,35**	**1**	**1**	**0**
2(B)	**Demolition of reinforced concrete buildings and structures**	**m2**	**0**	**296,72**	**1**	**1**	**0**
3	**Rehabilitation of access roads**	**m2**	**250**	**36,03**	**1**	**1**	**9007,5**
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	349,71	1	1	**0**
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	190,75	0,52	2	**0**
5	**Demolition of housing and/or administration facilities**	**m2**	**0**	**402,7**	**1**	**1**	**0**
6	**Opencast rehabilitation including final voids and ramps**	**ha**	**0**	**204952**	**1**	**1**	**0**
7	**Sealing of shafts adits and inclines**	**m3**	**0**	**108,09**	**1**	**1**	**0**
8 (A)	**Rehabilitation of overburden and spoils**	**ha**	**0**	**140732**	**1**	**1**	**0**
8 (B)	evaporation ponds (non-polluting potential)	ha	0	175279,4	1	1	0
8 (C)	evaporation ponds (polluting potential)	ha	0	509094,5	1	1	**0**
9	Rehabilitation of subsided areas	ha	0	117842	1	1	**0**
10	**General surface rehabilitation**	**ha**	**0,12**	**111484**	**1**	**1**	**13378,0356**
11	River diversions	ha	0	111483,6	1	1	**0**
12	**Fencing**	**m**	**0**	**127,17**	**1**	**1**	**0**
13	**Water management**	**ha**	**0**	**42389,2**	**1**	**1**	**0**
14	**2 to 3 years of maintenance and aftercare**	**ha**	**0**	**14836,2**	**1**	**1**	**0**
15 (A)	**Specialist study**	**Sum**	**0**	**65000**	**1**	**1**	**0**
15 (B)	Specialist study	Sum	0	0	1	1	**0**
					Sub Total 1		**22385,5356**
1	Preliminary and General		2686,264272		**weighting factor 2** 1		**2686,264272**
2	Contingencies			2238,55356			**2238,55356**
					Subtotal 2		**27310,35**
					VAT (14%)		**3823,45**

4.3.4. Confirm that the financial provision will be provided as determined.

LTM (Pty) Ltd undertakes to provide financial provision for the implementation of the rehabilitation plan.

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

a) Monitoring of Impact Management Actions

b) Monitoring and reporting frequency
c) Responsible persons
d) Time period for implementing impact management actions

Table 14: Mechanism for monitoring compliance

SOURCE ACTIVITY MONITORING AND REPORTING	**IMPACTS REQUIRING MONITORING PROGRAMMES**	**FUNCTIONAL REQUIREMENTS FOR MONITORING**	**ROLES AND RESPONSIBILITIES**	**FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS**
Site Establishment in the construction.	• Dust • Noise • removal of vegetation • disruption of animal life • habitat destruction • loss of geology • change in topography	• Daily dust suppression • Monthly dust bucket monitoring	ECO and Project Manager	Daily and monthly
Traffic management	• Dust • noise • animal life disruption	• Monitor dust fallout levels monthly and • Noise level	Geologist and Project Manager	Monthly and when necessary
Ablution Facility	• Land contamination • Water contamination	• service the toilet facility monitor water quality	Geologist and Project Manager	When necessary and monthly

	• health hazard			
Existing/Access routes	• dust • animal life disruption • Monitor dust	• Monitor dust fall out levels • Monitor speed on the road	Geologist and Project Manager	Monthly and when necessary

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

Regular monitoring of all the environmental management procedures and mitigation measures shall be carried out by LTM in order to ensure that the provisions of this EMPr are adhered to. Formal monitoring and performance assessment of the EMP will be undertaken on a monthly basis

6. Environmental Awareness Plan

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

The following Environmental Awareness Training will be implemented by LTM in order to inform employees and contractors of the environmental risk that may result from their work, or the risk of their interaction with the sensitive environment. The training will be conducted as part of the induction process for all new employees (including contractors) that will perform work in terms of the proposed activities. Proof of all training provided must be kept on-site. The Environmental Awareness Training will, as a minimum cover the following topics within Table 15.

Table 15: Environmental Awareness Plan

Air Quality	• Activities that may result or mitigate impact on air quality; speeding on roads, the requirements for dust suppression, etc. • Negative impacts on the receiving environment if mitigation measures are not implemented.
Surface and groundwater	• Risks to surface and groundwater, e.g. fuel and chemical handling and further risks of erosion or damage to riparian vegetation.

	• How incidents should be reported, and emergency requirements. • The importance to reuse water and to prevent spillages.
Cultural Heritage	• To respect all cultures and believes. • How to report any sightings of heritage importance as identified during operation activities (e.g. fossils)
Fauna	• Overview of the fauna found on site and the uniqueness thereof. • Mitigation measures that all contractors and employees need to abide by. • No contractor or personnel allowed to catch or kill any species, and how any sightings should be reported if further actions are required (e.g. to catch and release).
Flora	• Overview of the flora diversity on site, and the rare and endangered nature thereof. • Measures taken by the company to protect species. • No contractor or personnel allowed to remove, harvest or destroy any flora species unless clearly instructed based on the construction and operational plans.
Waste management	• Measures to avoid waste generation and to participate in waste minimisation/reduction.
Traffic strategies.	• To stay on designated roads and not create new roads on areas that will not be used for prospecting purposes. • To be aware of the fauna species and to be on the lookout and avoid collisions.
Emergency Preparedness and Response	• How to report any emergency or incident. • Incident and emergency reporting requirements
General rules and conduct	• Respect for the sensitive environment. • Do not litter.

	• Respect for each other and for different cultures. • Safety and health requirements

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

All employees must be provided with environmental awareness training to inform them of any environmental risks which may result from their work and the manner in which the risks must be dealt with in order to avoid pollution or the degradation of the environment. Employees should be provided with environmental awareness training before prospecting operations start. All new employees should be provided with environmental awareness training Induction courses will be provided to all employees by a reputable trainer.

7. Specific information required by the Competent Authority

No risks have been identified other than those that have been identified within this document, these are to be communicated to all contractors and all contractors are to be provided with a copy of the approved EMP. Environmental training needs for each section should to be identified and addressed to ensure environmental management is part of day to day operations. The environmental risk responsibilities guide the training requirements of each individual. The responsibility for each level of management according to the Integrated Risk Management and ISO14001 role descriptions are. Environmental training recommended for the different levels of management guide the training needs identification process. This is a minimum guideline and any additional training can be added where section specific issues or high-risk items require training and awareness It is the responsibility of the line manager to ensure environmental training needs for individual staff members are identified, agreed to, facilitated and tracked.

8. UNDERTAKING

The EAP herewith confirms

i. the correctness of the information provided in the reports ☒

ii. the inclusion of comments and inputs from stakeholders and I&APs ; ☒

iii. the inclusion of inputs and recommendations from the specialist reports where relevant; ☒and

iv. 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:

Tshikovha Green and Climate Change Advocates

Name of company:

September 2018

Date:

-END-

APPENDIX A: EAP CURRICULUM VITAE

TSHIKOVHA GREEN &
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CURRICULUM VITAE

OF

Vhangani Morgan Mugeri

PERSONAL DETAILS

Surname:	Mugeri
First Name:	Vhangani
Gender:	Male
Date of Birth:	17 March 1991
Nationality:	South African
Identity Number:	9103175661084
Marital Status:	Single
Contact Numbers:	081 464 0109
Email Address:	vhangani.mugeri@climateadvocates.co.za
Postal Address:	3326 Milkplum Street, Naturena 2095
Residential Address:	3326 Milkplum Street Ext 26, Naturena 2095
Religion:	Christianity

Home Language: Tshivenda

Other Languages

Language Proficiency	English	Zulu	Sotho	Tswana
Speak:	Good	Good	Good	Good
Write:	Good	Fair	Fair	Fair
Read:	Good	Fair	Good	Fair

Educational Information

Tertiary	Degree(s)	Period
University of Limpopo	Bachelor of Sciences Honours in Geology	2013
University of Johannesburg	Bachelor of Sciences (Environmental Management and Geology)	2009 – 2012
Last Schools Attended	**Highest Grade Passed**	**Period**
Sinthumule Secondary school	Grade 12	2004-2008

Work Experience

Current Position

Position: Engineering Geologist	**Organisation: Tshikovha Green and Climate Change Advocates**
Duties:	• Production of technical reports for EIA (BAR, Scoping, Alternative Assessment, EIAR, EMPr, BID etc) • Writing water quality report and geohydrological reports • Geotechnical investigations and report writing • Submission of EIA application • Site investigation and compilation of scope • Management of client requirements • Environmental Control Officer • Waste Management strategies • Compliance Monitoring • Management of public participation processes • Stakeholder engagement • Data Collection

Projects Involvement and Experience	• BAR Manngwe Mining (PTY) LTD (Application for Prospecting Rights) • Platkop and Simmer and Jack, Landfill audits • Gundani and Thohoyandou Landfill audits • Deep level, Wadeville, Nigel and Southern closed Landfill Audits • Geohydrological report for Corobrik (PTY) LTD Fortress Quarry • Water Monitoring and Quality reports for: Corobrik, PEUNEO and Manngwe Mining • Siite Investigation for Manngwe Mining (Application for prospecting Rights) • Site Investigation for RAL (Ga – Ntata) borrow pit closure • Geotechnical Investigations for a Filling station • Geotechnical Investigation and Report Writing for Construction of a Shopping Complex • Environmental screening • Application for Prospecting rights and BAR for ACTUPAX Pty Ltd in Saldahna • Application for Prospecting rights and BAR for Manngwe Mining in Makhado • Waste management strategies • Graskop George Lift Environmental Control Officer

Previous Position: Duration: 3 years

Position: Meteorological Technician	**Department of environmental Affairs**
Duties:	• Monitor Weather patterns • Report Writing

	• Observe record and distribute local and regional meteorological data to the local • National networks in support of weather forecasting and climatological objectives, while conforming to prescribed standards by SAWS, WMO and ICAO • Do 3 months hydrogen generator maintenance and gas calibration • Do monthly conformance test of the instruments and maintenance

References

Mr. M. Mudzielwana

Director

Tshikovha Environmental and Communication Consulting

747 Park Street, Arcadia, Pretoria

Cell phone Number: +27 76 431 1016

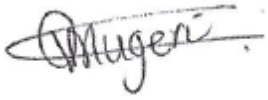
Email: moudy.mudzielwana@tshikovha.co.za

Name: Mr V. Tshingwala
Position: Supervisor
Company: Tshikovha Engineering
Contact Details: +27 73 033 8921
Email: Vincent.tshingwala@tshikovha.co.za

Name: Mr P. Mukwevho
Position: Supervisor
Company: University of Johannesburg
Contact Details: 079 406 3812

Statement by Individual:

I confirm that the above CV is an accurate description of my experience and qualifications and that at the time of signature I am available and willing to serve in the position indicated for me.

Signed: 

Date: 09 March 2018

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CURRICULUM VITAE

NDIVHUWO CALLISTA MAPONYA

PERSONAL DETAILS

Surname:	Maponya
First Name:	Ndivhuwo Callista
Gender:	Female
Date of Birth:	07 March 1988
Nationality:	South African
Identity Number:	8803070546089
Marital Status:	Single
Contact Numbers:	0762187560
Email Address:	Ndivhuwo.maponya@tshikovha.co.za
Postal Address:	747 Park Street Arcadia
Pretoria	
0002	
Residential Address:	4924 Xakaxa Street
Orlando East	

1804

Other Languages

Language Proficiency	English	Tshivenda	Sotho	Isizulu
Speak:	Good	Good	Good	Fair
Write:	Good	Good	Fair	Fair
Read:	Good	Good	Good	Fair

Educational Information

Tertiary	Qualification(s)	Period
University of Venda	Bachelor of Environmental Honours in Ecology and Resource Management	2013-2014
University of Venda	Bachelor of Environmental Sciences	2006-2011
Last Schools Attended	**Highest Grade Passed**	**Period**
Lwamondo High School	Grade 12	2001-2005

Work Experience

Current ;

Position: Environmental Assessment practitioner	**Organisation: Tshikovha Green and climate change Advocates**
Duties:	• Compile Integrated Waste Management Plans • Compile Environmental Management Plan Report • Environmental Auditing and Project Management • Environmental Impact Assessments (EIA) • Site Investigation • Public Participation • Awareness Programme • Liaise with Authorities • Provide Progress Report • Keep Records • Data collection
Projects Involvement and Experience	• The application of Mining right for Grifo Properties in Roodepoort under City of Johannesburg, Gauteng province. • Environmental monitoring and auditing for Vharanani road in road construction • Development of a filling station in Matatshe under Thulamela Municipality, Limpopo Province • Application of Section 24 for Wildfire Charcoal • Environmental Authorisation for development of a Commercial vegetable Farming in Jericho North West Province • Environmental Auditing for Simmer and Jack landfill site under the Ekurhuleni Municipality;

	• The proposed road upgrade from gravel to tar including construction of storm water outlet structures and refurbishment of culvert bridges in Ekangala ward 103, 104 and 105 within City of Tshwane Metropolitan Municipality, Gauteng province.

Position: Environmental Assessment practitioner	**Organisation: Department of Rural Development and Land Reform**
Duties:	• Identifying and assessing areas prone to disaster due to Environmental mismanagement and climate change • Compiling the disaster risk profiles of provinces focusing on rural areas • Identifying relevant stakeholders in disaster management processes and liaising with them when necessary •
Projects Involvement and Experience	• Drought relief project in South Africa • Animal and Veld Management Programme

References

Mr. Mudzielwana NM

Tshikovha Environmental and Communication Consulting

Director

0764311016/012 111 1912

Mr Mathaba Kennedy Assistant Director Department of Rural Development and Land Reform 012 312 9630 /072 729 1645 Kennedy.mathaba@drdlr.gov.za
Mr Matsila Livhuwani Director Matsila Trust 082 602 5515 livhu@matsilatrust.co.za

APPENDIX H1: PUBLIC PARTICIPATION REPORT

(AWAITING)

APPENDIX H2: NEWSPAPER ADVERT

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT (BASIC ASSESSMENT) PROCESS FOR THE APPLICATION OF PROSPECTING RIGHT FOR CHROME ON PORTION 1 AND REMAINING EXTENT ON THE FARM VLAKFONTEIN 164 JP SITUATED WITHIN MOSES KOTANE LOCAL MUNICIPALITY,BOJANALA DISTRICT MUNICIPALITY, NORTH WEST PROVINCE.

Notice is hereby given in terms of chapter 6 of Section 24 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) read with Activity 20 of GN 327 of the Environmental Impact Assessment (EIA) Regulations, 2014 (amended April 2017) 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) for a Prospecting Right Application.

NATURE OF THE ACTIVITY: An application for a Prospecting Right for Chrome on portion 1 and remaining extent on the farm Vlakfontein 164 JP covering an aerial extent of 2946.49 ha. The proposed activities will include both invasive and non-invasive phases that will take place in a period of 5 years.

SITE COORDINATES: Lat:-25.1390, Long: 26.880
The proposed activity triggers the following activity

Activity	Description
GNR 327, activity 20, Listing Notice 1	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— (a) Associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource. (b) The primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing
GNR 327 Activity 22	The decommissioning of any activity requiring – (i) a closure certificate); or (ii) a prospecting right, where the throughput of the activity has reduced by 90% or more over a period of 5 years

NAME OF THE APPLICANT: Lesego Thabang Masilo (Pty) Ltd.

REF NUMBER: NW 12406 EM

NAME OF ENVIRONMENTAL PRACTITIONERS: Tshikovha Green and Climate Change Advocates (Pty) Ltd

REGISTRATION OF INTERESTED AND AFFECTED PARTIES: All Interested and Affected Parties (I&APs) are hereby invited to register and/ or comment on the proposed application. A 30-calendar day registration period for Interested &Affected Parties is open. Please submit your details and comments in writing on the contact details provided below. To register or comment please provide your name and contact details (postal address as well as preferred method of communication, e.g. email, fax, post, etc.). Kindly comment not later than thirty (30) days from the publication of this advertisement.

CONTACT DETAILS: Tshikovha Green and Climate Change Advocates (Pty) Ltd

Contact person	Contact Number	Email address
Gregory Netshilindi	073 439 2144	gregory.netshilindi@tshikovha.co.za
Moudy Mudzielwana	076 431 1016	moudy@tshikovhacom.co.za
Office Number	012 111 1912	Thulisile@tshikovhacom.co.za

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APPENDIX H3: SITE NOTICES

Figure 1: Site Notice 1 placed **25° 11'36.78"S & 26° 55'20.27"E**

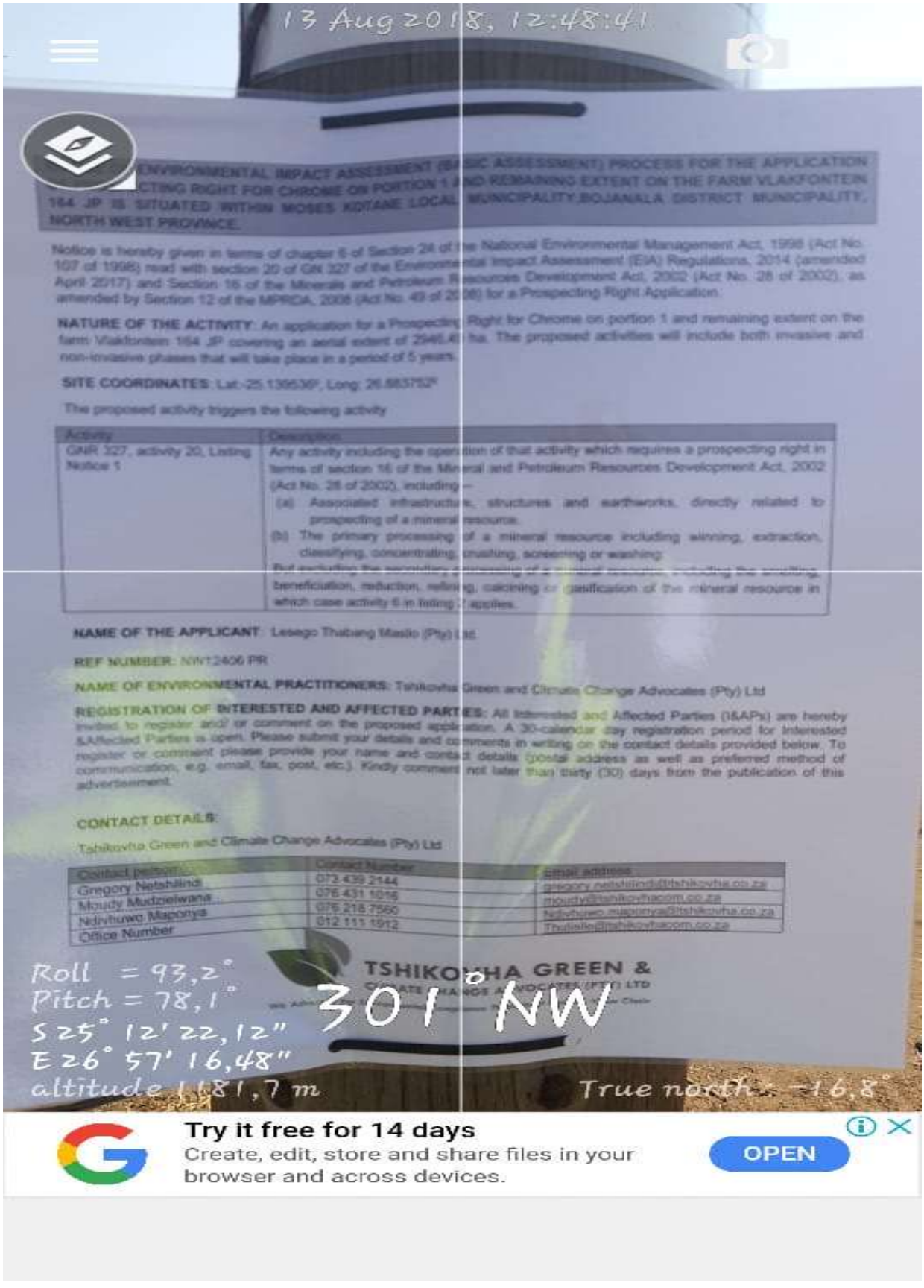


Figure 2: Site Notice 2 placed **25° 11'36.78"S & 26° 55'20.27"E**

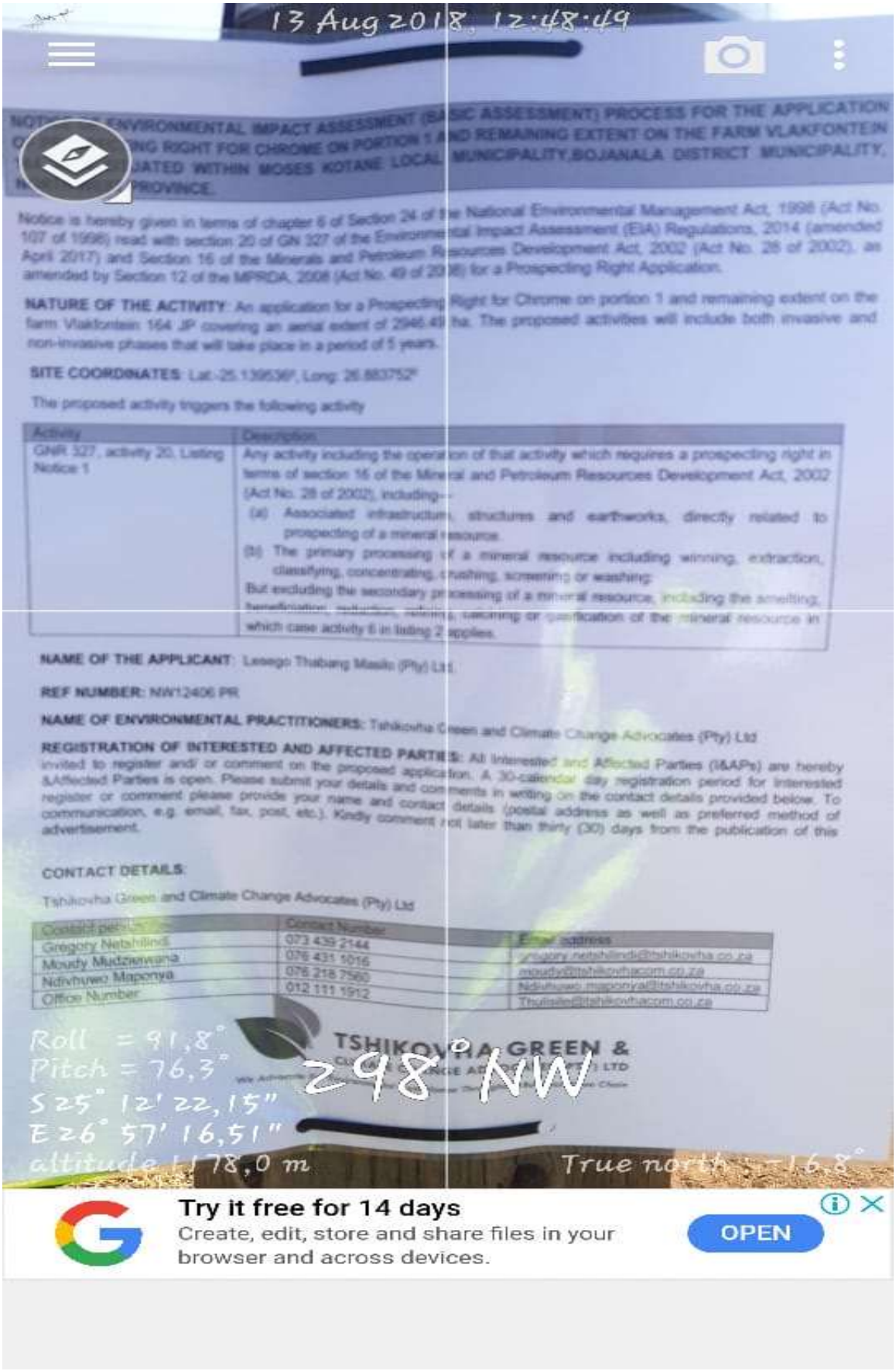


Figure 3: Site Notice 3 placed **25° 12'22.15"S & 26° 57'16.51"E**

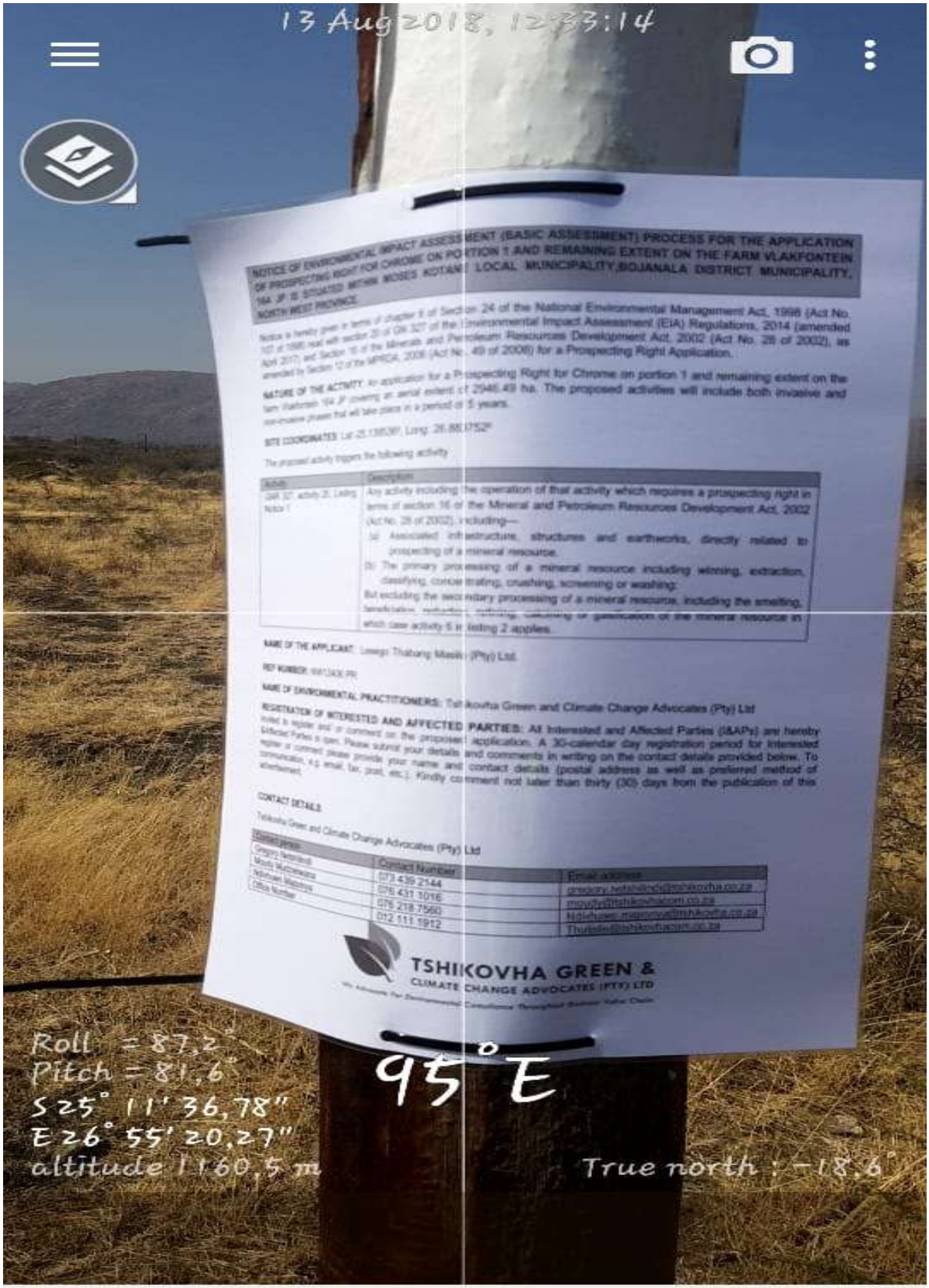
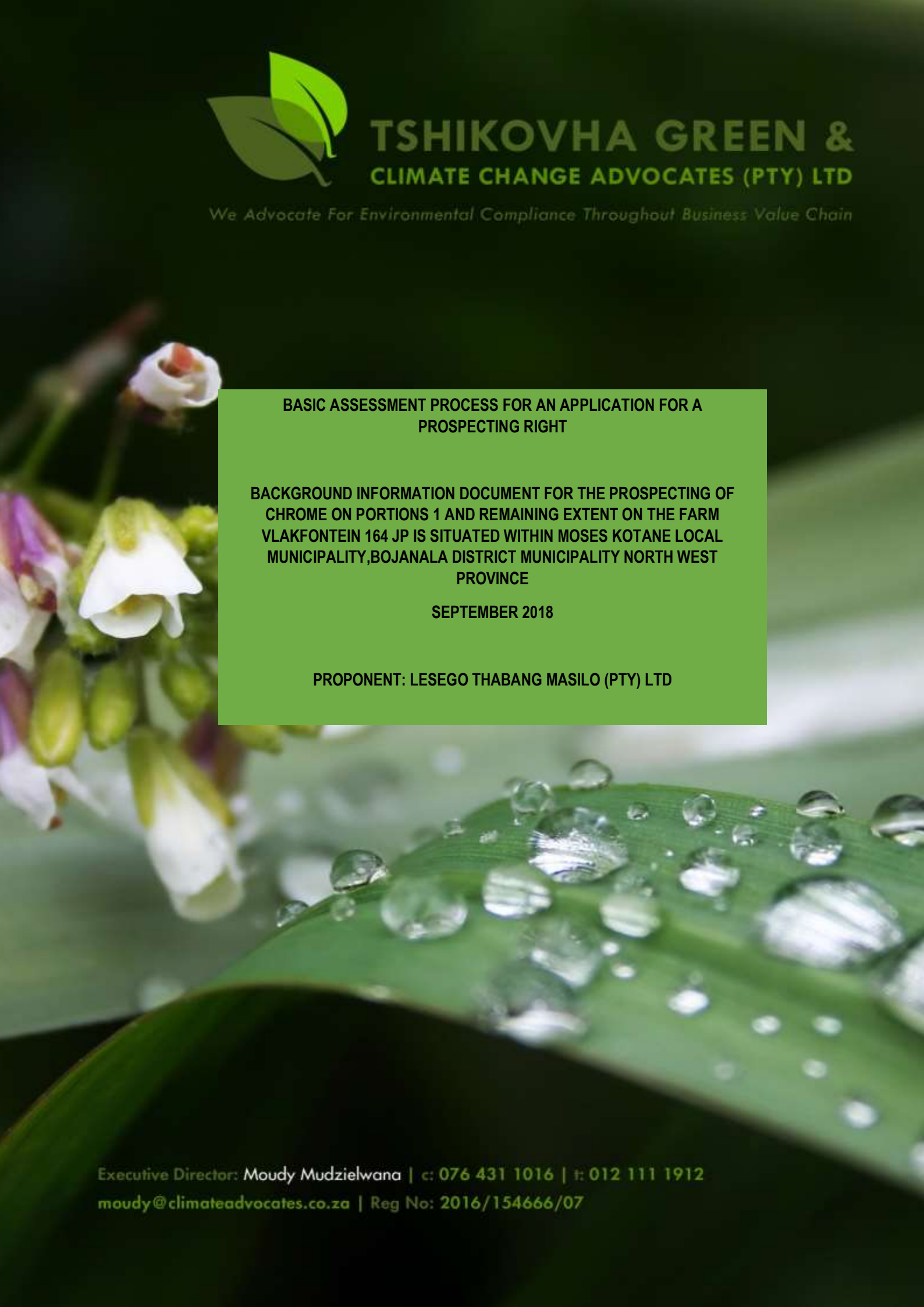


Figure 4: Site Notice 4 placed **25° 11'36.78"S & 26° 55'20.27"E**

APPENDIX H6: MINUTES OF THE MEETING

(AWAITING)

APPENDIX H5: BACKGROUND INFORMATION DOCUMENT



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BASIC ASSESSMENT PROCESS FOR AN APPLICATION FOR A PROSPECTING RIGHT

BACKGROUND INFORMATION DOCUMENT FOR THE PROSPECTING OF CHROME ON PORTIONS 1 AND REMAINING EXTENT ON THE FARM VLAKFONTEIN 164 JP IS SITUATED WITHIN MOSES KOTANE LOCAL MUNICIPALITY,BOJANALA DISTRICT MUNICIPALITY NORTH WEST PROVINCE

SEPTEMBER 2018

PROPONENT: LESEGO THABANG MASILO (PTY) LTD

Executive Director: Moudy Mudzielwana | c: 076 431 1016 | t: 012 111 1912
moudy@climateadvocates.co.za | Reg No: 2016/154666/07

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1 Project Background

Lesego Thabang Masilo (Pty) Ltd proposes to conduct prospecting activities for Chrome I on the farm Vlakfontein 164 JP is situated within Moses Kotane Local Municipality, Bojanala district municipality,

In terms of the Minerals and Petroleum Resources Development Act (Act No. 28 of 2002) and National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) as amended, it is required that prior commencement of any prospecting activities an Environmental Impact Assessesment should be undertaken in line with NEMA Environmental Impact Assessment Regulations (Government Notice (GN) No. R 327) as amended on the 07th April 2017.

Therefore, Lesego Thabang Masilo (Pty) Ltd has commissioned Tshikovha Green and Climate Change Advocates (Pty) Ltd, as an Independent Environmental Assessment Practitioner to undertake an Environmental Impact Assessesment in order to obtain the Prospecting Right to commence with the prospecting activities.

2 Project Location

The proposed prospecting activities will be undertaken on portion 1 and remaining extent on the farm Vlakfontein 164 JP covering an aerial extent of 2946.49 ha. The proposed activities will include both invasive and non-invasive phases that will take place in a period of 5 years.

The Geographical Positioning System Coordinates are as follows:

Table 1: Site Coordinates

VLAKFONTEIN 164 JP		
Point	**Latitude (DMS)**	**Longitude (DMS)**
A	25° 8'22.65"S	26°51'49.50"E
B	25° 9'28.40"S	26°54'39.41"E
C	25°10'37.73"S	26°54'40.70"E
D	25°12'14.75"S	26°54'24.26"E
E	25°11'37.92"S	26°51'19.54"E

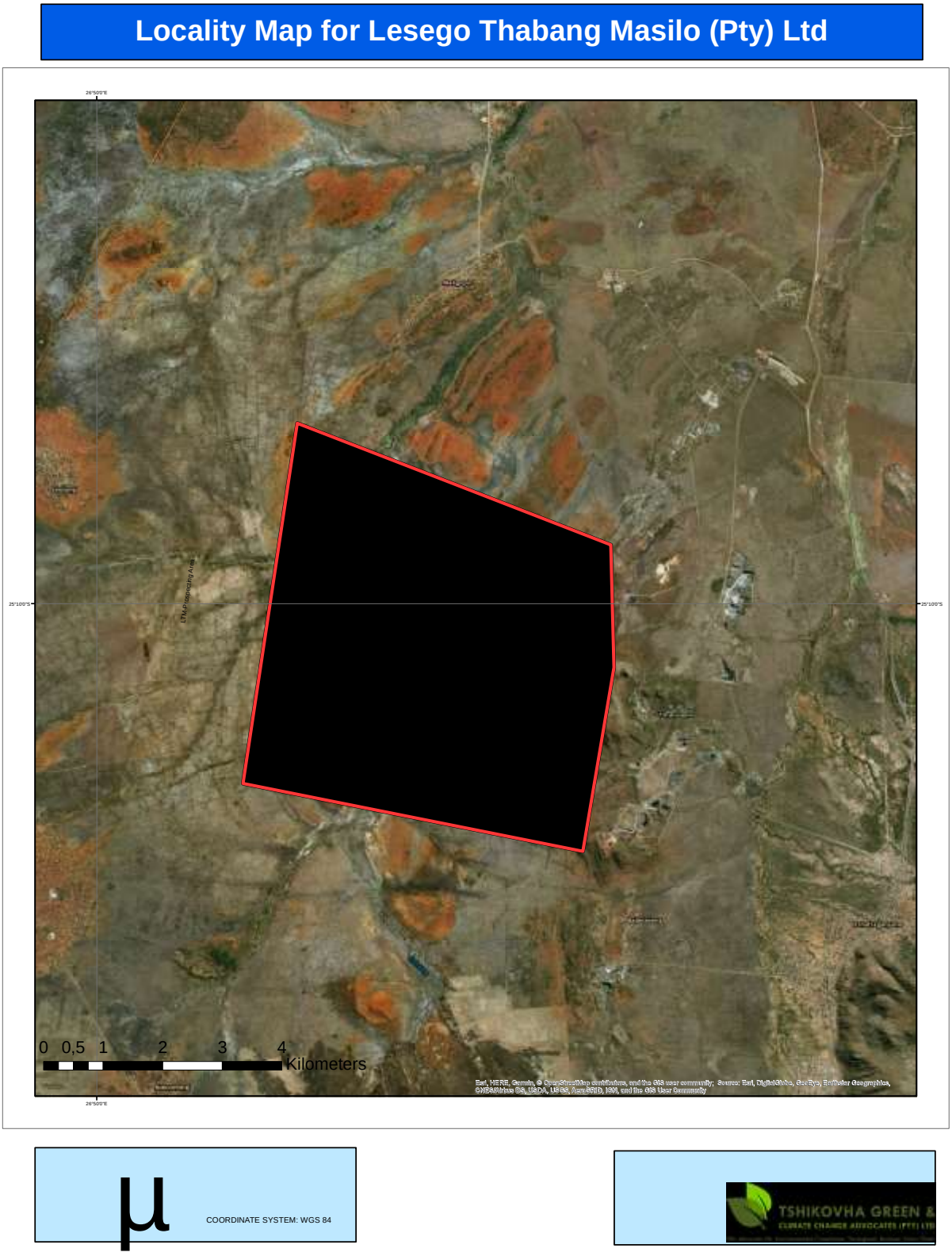

Figure 1: Locality map of proposed prospecting area

3 Project Description

Lesego Thabang Masilo (Pty) Ltd intends to prospect for Chrome for a period of 5 years. These activities will take place on portion 1 and remaining extent on the farm Vlakfontein 164 JP is situated within Moses Kotane Local Municipality, Bojanala district municipality,

The description of the prospecting method to be implemented is as follows.

3.1 Description of planned non-invasive activities:

(These activities do not disturb the land where prospecting will take place (e.g.: Aerial photography, desktop studies, aero magnetic surveys, etc.)

3.1.1 Geophysical Exploration Techniques

Geophysical prospecting and exploration is the geophysics applied to the location of mineral deposits or geological structures concealed beneath the surface of the earth. In general a hidden ore body or geological structure associated with it must possess one (or more) physical property that is different from surroundings in order to cause a measurable affect or anomaly in a geophysical survey. The main physical properties exploited during geophysical physical prospecting are

- Electrical Properties
- Magnetic Properties
- Nuclear Properties
- Gravity Properties

The main instrument types used for geophysical exploration are discussed below:

(a) Magnetic Methods

Certain types of ore, especially magnetite, ilmenite and pyrrhotite bearing sulphide deposits, produce distortions in the earth's magnetic fields. Some iron rich manganese and chromium may also yield magnetic anomalies. The ferro-magnetic minerals have 2 (two) distinct magnetic properties. One is that the earth's magnetic field turns the ore body into a large magnet which in turn wraps the normal field, thus producing anomaly. The other is that the ferro-magnetic materials often have a residual magnetism due to their original formation and this residual magnetism may act at an angle to the earth's magnetic field, thus strengthening or weakening the original field and thus forming anomalies. A magnetic survey may be established or at ground level.

(b) Electro-magnetic Methods

When a transmitted electro-magnetic field is propagated through the ground it induces an electrical current in any conductor in its path. These secondary currents in turn produce the own alternating electro-magnetic field, which opposes the primary field. The lower the resistance of the conductor then the stronger the opposing current will be.

Thus, if the induced field is passed through a good conductor, such as ore body containing graphite, pyrrhotite, pyrite, chalcopyrite or magnetite a strong secondary filed is setup.

(c) Electrical Methods

Three forms of electrical geophysical prospecting methods are used self-potential, resistivity and induced polarisation. The self-potential method is useful as an indicator of near surface anomalies because it is cheap and simple to operate. If two non-polarisable electrodes are driven anywhere into the ground and connected to terminals of a sensitive voltmeter, a small voltage is fund to exist between the terminals. In the resistivity method, an electric current is sent into the ground and the pair of electrodes and a sensitive voltmeter measures the resulting distribution of potentials. When an electrical current is passed into the earth, its theoretical paths through homogenous ground are known.

(d) Other Geophysical Techniques

Several other techniques are available for geophysical prospecting such as seismic and gravity techniques, which are suitable for structural mapping although they have some application to specific types of ore body. Gravity techniques are based on small changes in the earth's surface gravitational effect caused by a pool of rocks lying up to several thousand meters below surface. It is used to locate faults, anticlines and other structures and may also be used to detect high density ore bodies. Seismic methods are based upon physical characteristics by which large differences occur in the velocity of sound waves in geological strata

3.1.3 Geochemical Technique

It is used to determine values of elements that are higher than the normal background value.
Samples that should be analysed include

- Rock samples from surface outcrop
- Soil samples from surface pits
- Steam sediments
- Leaves and roots of predominant vegetation

3.2 Description of planned invasive activities:

These activities result in land disturbances (e.g. sampling, drilling, bulk sampling, etc.)

3.2.1. Trenching / Pitting

Four (4) trenches will be dug in a hundred meter spacing distances and it will be in rectangular shape

3.2.2 Drilling and Sampling

The principal prospecting activity will be diamond core drilling. One drill rig will be utilised to drill NQ – 60mm diameter of core size. This core size provides sufficient sample mass for laboratory analysis.

A minimum of 5 samples of chromium intersection will be taken, although it may be necessary to take additional samples in transitional zones. A total of 12 boreholes will be drilled and the approximate depth of each borehole will be 150m, the boreholes will cover the potential chromium bearing area. Additional 2 boreholes will be drilled in phase two (2) of drilling with the estimated depth of 300 meters.

3.3 Description of pre- feasibility Studies

(Activities in this section includes but are not limited to: initial, geological modelling, resource determination, possible future funding models, etc)

In this stage the core logs will be sent to the consultant geologist to be analysed, evaluated, modelled and calculated. This calculation will be done in two (2) different types which will be Inferred Resource Calculation and also in terms of Measured Resource Calculation. It also involves the measurement of depth of the deposit. In this stage we can be able to decide whether the deposit is minable or not.

4 Need and Desirability of the Project

Assessment of the geological data available has determined that the area in question may have the proposed minerals. In order to ascertain the above and determine the nature, location and extent of the subject minerals within the proposed prospecting area, it will be necessary that prospecting be undertaken. The prospecting will also determine if there are any features that may have an impact on the economic extraction of the subject minerals. The mineral that will be prospected is Chrome.

A prospecting right allows a company to survey or investigate the area of land for the purpose of identifying an actual or probable mineral deposit. The data that will be obtained from the prospecting of the minerals being applied for will be necessary to determine how and where the minerals will be extracted and how much economically viable mineral reserves are available within the proposed prospecting area.

Currently South Africa is faced with an outbreak of illegal mining at a national scale which is associated with death of illegal miners as a result of conflict, thus mining prospecting activities reduces the probability of these incidents and on other hand promoting the sustainable and regulated exploration of natural resources in an environmental friendly manner

Additionally, the mineral prospecting activities will stimulate an income for the local minority that will be involved in the activity from site clearance, excavation to testing. The result will provide a gateway for the stimulation of sustainable income for local community at the operational stage of chrome mining.

5 Purpose of this Document

This document, the Background Information Document (BID), is intended to provide information about the Environmental Impact Assessment (EIA) being undertaken for the proposed activities and provides:

- An overview of the project;
- An overview of the legislative context and a description of the manner in which the EIA will be undertaken;
- An indication of how Interested and Affected Parties (I&APs) may become involved in the project; and
- Contact details of the person to whom I&APs may submit their issues and concerns associated with the projects.

6 Anticipated Project Activities in relations to Listed Actives

In terms of EIA Regulations 2014, published in Government Notice R324, R325, R326 and R327 as amended in 7 April 2017 under Section 24 (5) of the National Environmental Management (NEMA), the application for a Prospecting is subjected to an Application for Environmental Authorization. Government Notice R325, R326 and R327 schedules listed activities which require environmental authorization. The proposed Prospecting activities trigger the following activity(s) under GNR 327 which is subject to a Basic Assessment Report:

Table 2: Triggered activities

Activity	Description
GNR 327, activity 20, Listing Notice 1	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— (a) Associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource. (b) The primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing: But excluding the secondary processing of a mineral resource, including the smelting, beneficiation, reduction, refining, calcining or gasification of the mineral resource in which case activity 6 in listing 2 applies.
GNR 327 Activity 22	The decommissioning of any activity requiring – (i) a closure certificate); or (ii) a prospecting right, where the throughput of the activity has reduced by 90% or more over a period of 5 years

7 Environmental Impact Assessment (Basic Assessment Process)

Step 1: Apply for prospecting right with the Competent Authority which is the North West Province Department of Mineral Resources.

Step 2: Notify I&APs and identify issues. The BA process will be announced through an advert in the Platinum Weekly newspaper. The advert is to inform Interested & Affected Parties of the proposed project and invite them to register on the database for the BA process. Letters will be sent to I&APs on the I&AP register and this database will be updated through-out the BA process. I&APs will be provided with a BID of the project, including a locality map and a comment form. I&APs will be provided with opportunity to raise any issues of concern related to the project, for inclusion in the Draft Basic Assessment Report.

Step 3: Prepare a Consultation Basic Assessment Report and release for I&AP review. All issues raised will be investigated and responded to by the BA team, with findings provided in the Consultation Basic Assessment Report. This report will include an issues trail and will be released for a 30 day comment period. All I&APs on the project database will be notified in writing of the opportunity to comment on the report, and provided with a concise summary of the Draft Basic Assessment Report.

Step 4: Compile a Final Basic Assessment Report and submit to authorities. The Final Basic Assessment Report, Comments and Responses Trail, will be compiled for submission to the authorities for decision making. All I&APs on the project database will be notified in writing of the outcome of the application, including reasons for the decision and the appeal process.

7.1 The objectives of the EIA Process

- Determine the policy and legislative context within which the activity is located and note how the proposed activity complies with and responds to the policy and legislative context;
- Describe the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;
- Identify the location of the development footprint within the preferred site based on an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified development footprint alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects of the environment;
- Determine the nature, significance, consequence, extent, duration and probability of the impacts occurring to inform identified preferred alternatives; and the degree to which these impacts (a) can be reversed; (b) may cause irreplaceable loss of resources, and (c) can be avoided, managed or mitigated;
- Identify the most ideal location for the activity within the preferred site based on the lowest level of environmental sensitivity identified during the assessment
- Identify, assess, and rank the impacts the activity will impose on the preferred location through the life of the activity;
- Identify suitable measures to avoid, manage or mitigate identified impacts; and
- Identify residual risks that need to be managed and monitored.

Table 3: Basic Assessment Process Flow

Phase	**Task**	**Timeframe**
Application	Submit application and supporting documents (with application fee)	10 DAYS

	Receive acknowledgment of receipt of application (within 10 days)	
Basic Assessment	Submit Basic Assessment Report for Public Review (at least 30 days)	90 DAYS
	Submit Basic Assessment Report to Authorities that reflects incorporation of comments received (within 90 days after submitting application)	
Environmental Authorization	Authorities to grant or refuse environmental authorization (within 107 days of receiving the Basic Assessment Report)	107 DAYS
	Applicant to notify IAPs of EA (within 14 days)	14 DAYS

8 Public Participation Process

The process of public participation seeks to ensure inclusion of stakeholders and interested and affected parties during the process of Environmental Impact Assessment.

Chapter 6, Regulations 40 – 44 of the EIA Regulations, 2014 (amended April 2017), the applicant is required to consult with interested and Affected Parties (I&APs). Comments received from the I&APs 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. The public participation aims to ensure that:

- Information that contains all the relevant facts in respect of an application is made available to I&APs for review.
- I&AP participation is facilitated in such a manner that stakeholders are provided with a reasonable opportunity to comment on a proposed project.
- An adequate review period is provided for I&APs to comment on the findings of the draft Basic Assessment Report, and draft EMPr

8.1 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, 2014 (amended April 2017) 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.

On-going communication with registered parties will ensure that you will be kept informed of the progress of the environmental assessment process. You will be advised when documentation is available for review and comment. As an I&AP, your input is considered an important part of this process, and we urge you to become involved.

8.2 How to comment

- By responding by phone, fax, post or e-mail to the invitation for your involvement/ registration.
- By returning the attached Comments and Registration Sheet to the relevant contact person.
- By contacting the public participation consultants with queries or comments.
- By reviewing and commenting on the draft Basic Assessment Report within the stipulated 30-day public review period.

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

Tshikovha Green and Climate Change Advocates Public Participation Team:

Table 4: Contact Details

Contact Person	Contact Number	Email Address
Gregory Netshilindi	0734392144	Gregory.netshilindi@tshikovha.co.za
Ndivhuwo Maponya	0762187560	Ndivhuwo.maponya@tshikovha.co.za
Office Number	012 111 1912	Thulisile@tshikovhacom.co.za
Moudy Mudzielwana	076 431 1016	Moudy@tshikovhacom.co.za

Tshikovha Green and Climate Change Advocates (Pty) Ltd

The company exists to assist companies, organs of state and individuals whose activities may impact the environment, to comply with the required environmental authorizations through applicable studies within regulations. We advocate for compliance throughout the project and we believe in sharing information within context of the legal framework and the objective of the environmental studies. We are guided by science and we drive technology into our work. We always act independent from the client at every opportunity and we adhere to the code of ethics of Natural Scientists

www.climateadvocates.co.za

Moudy Mudzielwana: 076 431 1016

Registration and Comment Sheet

Title_____Initials_____

First name and Surname

_____

Organization: _____

Capacity (e.g. Chairperson, member, etc.): _____

E-mail: _____

Telephone (work): _____

Telephone (Home):_____

Cellular Phone: _____Fax:_____

Physical Address): _____

Town (or nearest town: _____Code: _____

Postal Address: _____

Town: _____Code: _____

What is your main area of interest with regards to the proposed project?

_____

_____

_____

_____

_____

_____

_____

_____

Please outline any issues you wish the EIA for the project should consider.

Do you have any issues, comments and/or concerns regarding the proposed project?

YES/NO If “yes”, please list your main areas of concern in point form:

Please add any views regarding the project?

_____

_____

You wish to receive the Basic Assessment Report?

_____

_____

_____

_____

_____

_____

_____

(Please add more pages if necessary)

_____

_____

_____

_____

_____

_____

_____

APPENDIX H6: PROOF OF NOTIFICATION TO STAKEHOLDERS

(AWAITING)

APPENDIX H7: STAKEHOLDER DATABASE

STAKEHOLDER DATABASE FOR PROPOSED VLAKFONTEIN 164 JP (LTM (PTY) LTD- CHROME)				
NAME	**ORGANISATION/DEPARTMENT**	**CONTACT NO.**	**E-MAIL ADDRESS**	**PHYSICAL ADDRESS**
North West Provincial Departments				
Motshabi Mohlalisi	North West Department of Rural, Environment and Agricultural Development	(014) 597 3597 /(071) 292 6457	mmohlalisi@nwpg.gov.za	
Alfred Mafune	North West Department of Public Works and Roads	(018) 388 1395	ddmogonediwa@nwpg.gov.za	Head Office, Mmabatho, 2735
Sebenzile Ntshangase	North West Department of Water and Sanitation	(082) 896 8228	ntshangases@dws.gov.za	
Winni Nedzingane Winni	North West Department of Water and Sanitation	(072) 600 6470	nedzinganew@dws.gov.za	
Mosiane Motlhabane	North West Heritage Agency	(018) 388 2826	mosianem@nwpg.gov.za	
PARASTATALS				
	SANRAL			
Bojanala Platinum District Municipality				
P Shikwane	Municipal Manager	(014) 590 4502	pogisos@bojanala.gov.za	
Tsholofelo Dikgole	Executive Secretary of Municipal Manager	(014) 590 4502	tsholofelod@bojanala.gov.za	
	Environmental Officer			
Moses Kotane Local Municipality				
Mokopane Letsoalo	Municipal Manager	(014) 555 1300	municipalmanager@moseskotane.gov.za	
T. Moatshe	Speaker's Office	(014) 555 1300	tmoatshe@moseskotane.gov.za	
M. Mogorosi	Speaker's Office	(014) 555 1300	mmogorosi@moseskotane.gov.za	
Sheron Rasepae	Environmental Officer	(014) 555 1326	srasepae@moseskotane.gov.za	
Joseph Sibande	Ward Councillor	(064) 750 1550	ssibande@moseskotane.gov.za/sibandaj693@gmail.com	
Adjacent Landowner				
Wata- Tambwe	Vlakfontein Mine	(083) 413 8209		
Andru Mining (Pty) Ltd	Andru Mining (Pty) Ltd	(011) 395 0200		
Interested and Affected Parties				
Jason T	Lilliput			
Gloria Malebye	Tihatinaganyane	(073) 678 4134		
GloMassey Molete	Tihatinaganyane	(082) 595 3874		