

February 1, 2018



## mineral resources

Department:  
Mineral Resources  
**REPUBLIC OF SOUTH AFRICA**

# **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:** Jim Foster Landgoed CC

**TEL NO:** 018 571 0031

**FAX NO:** 018 571 0036

**POSTAL ADDRESS:** P.O Box 1, Ottosdal 2610

**PHYSICAL ADDRESS:** -

**FILE REFERENCE NUMBER SAMRAD:** NW30/5/1/1/2/12235 PR

February 1, 2018

## 1. 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.

February 1, 2018

## 2. 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.

February 1, 2018

**PART A**

**SCOPE OF ASSESSMENT AND BASIC ASSESSMENT REPORT**

**3. Contact Person and correspondence address**

**a) Details of**

**iii) Details of the EAP**

Name of the Practitioner: DERA Environmental Consultants (Pty) Ltd. - Mr Daan Erasmus

Tel No.: 018 468 5355

Fax No.: 018 468 4015

E-mail: daane@dera.co.za

**ii) Expertise of the EAP.**

**(1) The qualifications of the EAP**

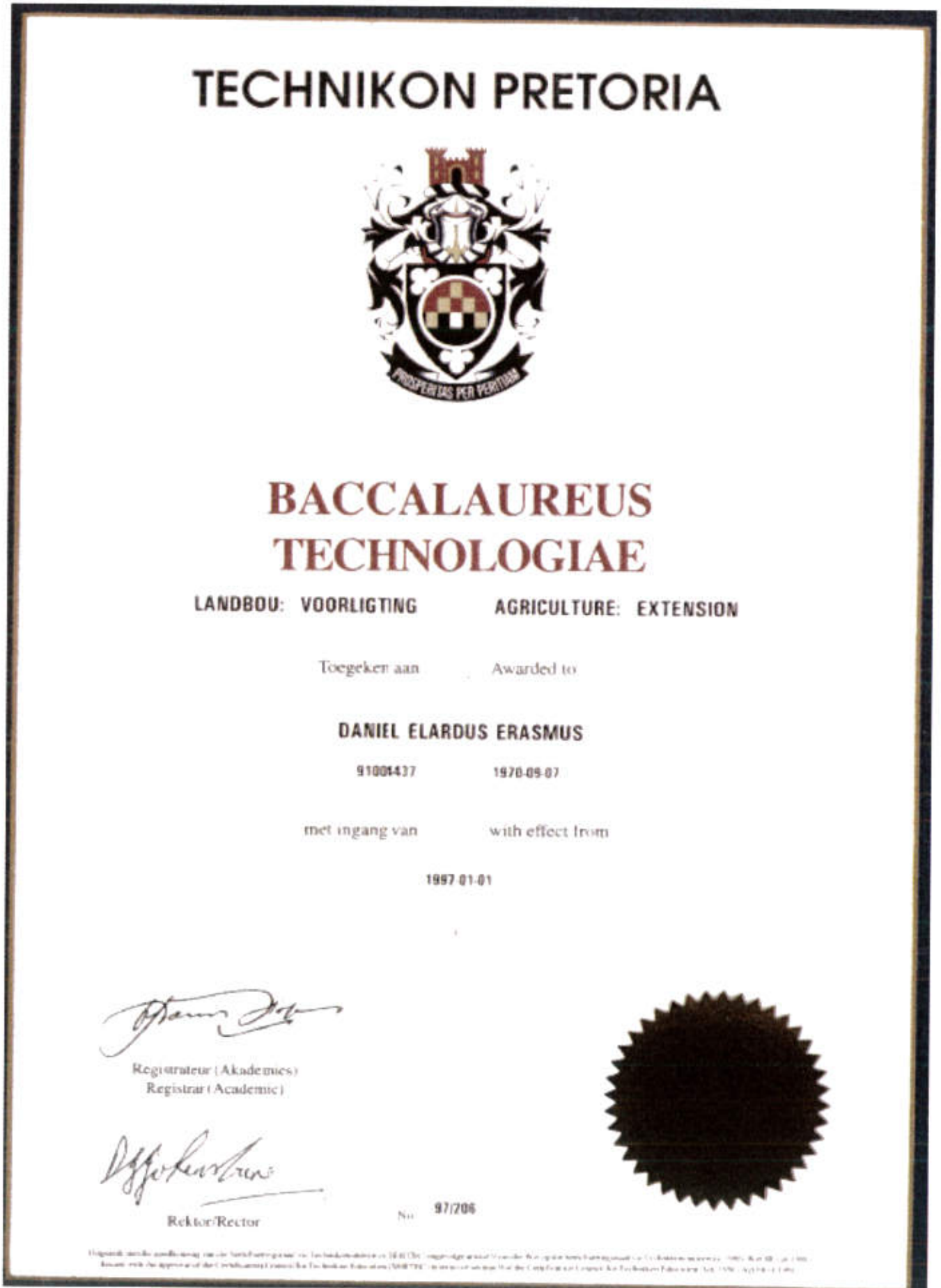
(With evidence attached as).

See next page for copy of qualification, **Figure 1**



February 1, 2018

Figure 1 – Copy of Qualification



February 1, 2018

TECHNIKON  
PRETORIA



TECHNIKON  
PRETORIA

# NASIONALE NATIONAL DIPLOMA

LANDBOU: HULPBRONBENUTTING

AGRICULTURE: RESOURCE UTILIZATION

Toegeken aan

Awarded to

DANIEL ELARDUS ERASMUS

91004437

7009075033088

met ingang van

with effect from

1994-01-01

Die volgende is voltooi

The following were completed

*(Die onderstaande van)*

Landbou-ekonomie I, II en III  
 Voorligtingsmetodiek I en II  
 Akkerbou I, II en III  
 Weidingkunde A  
 Bodembepanning I en II  
 Bodembewaring I  
 Grondkunde I en II  
 \*Meganisasie  
 Fisiese Wetenskap  
 Melkproduksietegnologie  
 Vleisbeesproduksietegnologie  
 Kleinveesproduksietegnologie  
 Grondklassifikasie III

*(The following completed)*

Agricultural Economics I, II and III  
 Extension Method I and II  
 Field Husbandry I, II and III  
 Pasture Science A  
 Land Use Planning I and II  
 Soil Conservation I  
 Soil Science I and II  
 Mechanisation\*  
 Physical Science  
 Milk Production Technology  
 Beefer Production Technology  
 Small Stock Production Technology  
 Soil Classification III

\*\*\*\*\*

Minimum Opleidingstydperk: 3 Jaar  
Minimum Training Period : 3 Years

SERTEC  
Uitvoerende Direkteur  
Executive Director

Nr./No. ND1117/94

TECHNIKON  
Rektor/Rector

TECHNIKON is 'n openbare entiteit wat deur die Departement van Opleiding en Opleidingsontwikkeling (DOP) van die Republiek van Suid-Afrika geïnkorporeer is. Die DOP is 'n departement van die Republiek van Suid-Afrika. Die DOP is 'n departement van die Republiek van Suid-Afrika. Die DOP is 'n departement van die Republiek van Suid-Afrika.

February 1, 2018

(2) **Summary of EAP's past experience**

(Attach the EAP's curriculum vitae as Figure 2)

See **Figure 2** below Curriculum Vitae of D. E. Erasmus.

27 Lewis Street  
Wikoppies  
Klerksdorp

Phone +2718-468-5355  
Fax +2718-488-4015  
E-mail: dera@xsinet.co.za

## **DAAN ERASMUS**

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### **Curriculum Vitae Daniël Elardus Erasmus**

February 2015

**Personal Information**

Name: Daniël Elardus Erasmus  
 Date of Birth: 7 September 1970  
 Place of Birth: Ottosdal, North West Province, South Africa  
 Marital Status: Married with two children

**Secondary & Post Secondary Education**

**1983-1988** Wolmaransstad High School, North West, SA  
 Higher School Certificate – with Full Exemption

Subjects: English Afrikaans  
 Mathematics Science  
 Geography Accounting

**1989-1990** Military Service, Potchefstroom, SA  
 Artillery Division  
**Officers Course: II Lieutenant**

**1991-1994** Technikon Pretoria, Pretoria, SA  
**National Diploma**  
 Agriculture: Resource Utilization

Subjects: Agricultural Economics I, II and III  
 Extension Method I, II and III  
 Field Husbandry I, II and III  
 Pasture Science A  
 Land Use Planning I and II  
 Soil Conservation I  
 Soil Science I and II  
 Mechanization  
 Physical Science  
 Milk Production Technology  
 Beef Production Technology  
 Small Stock Production Technology  
 Soil Classification III  
 Computer Application I

**1996** Technikon Pretoria, Pretoria, SA  
**Baccalaureus Technologiae**  
 Agriculture: Extension  
 Agricultural Resource Conservation Act in the North West Province of SA; management of personnel and personnel related matters; management of budget of regional office in Potchefstroom; monitoring mine rehabilitation and environmental management out of agricultural point of view; management and control of declared weeds and invader species.

**2003-Present** Began own company – DERA Environmental Consultants. Main scope of business: Compiling and submission of mining related applications; Manage and compile legal environmental documents. Further doing monitoring work to evaluated compliance to environmental legislation; evaluating outstanding rehabilitation liabilities for mining companies.  
 Assist legal companies in determining environmental damage. Do assessment for closure applications. Give guidance in rehabilitation practices. Compile applications and basic assessment reports for chicken broilers and feed lots based on experience form management of the natural resources and the mitigation of impacts.

February 1, 2018

**b) Location of the overall Activity**

Farm Name:	Driekuil 280 ✓ Portion 5 (Portion of Portion 1)
Application area (Ha)	268,6925 ha
Magisterial district:	Lichtenburg
Distance and direction from nearest town:	Approximately 15 km north-east of Ottosdal
21 digit Surveyor General Code for each farm portion	TOIP00000000028000005

**c) Locality Map**

(Show nearest town, scale not smaller than 1:250000 below as Figure 3).

Appendix 1(a) – Locality Map.

**d) Description of the scope of the proposed overall activity.**

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

Appendix 1 (c) – Infrastructure Map.

**i) Listed and specified activities**

**Table 1: Listed Activities**

NAME OF ACTIVITY (Activities including activities not listed) (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control berms, roads, pipelines, power lines, conveyors, etc., etc., etc.)	Aerial extent of the Activity Ha or m <sup>2</sup>	LISTED ACTIVITY Mark with an 'X' where applicable or affected.	APPLICABLE LISTING NOTICE (GNR54, GNR 545 or GNR545) NOT LISTED
Prospecting (Drilling) (Activity 20, Listing 1)	0.30 ha	X	GNR 327

**ii) Description of the activities to be undertaken**

(Describes Methodology or technology to be employed, and for a linear activity, a description of the route of the activity)

**Table 2: Description of Activities to be followed**

ITEM	DESCRIPTION
<b>Environmental attributes.</b> Describe how the Environmental attributes associated with the development footprint will be determined.	The site was visited and a proper foot survey was conducted. The activities that will be conducted by the applicant were discussed on site as described in the Prospecting Works Programme. The environmental setting on site and surrounding area with the experience of the EAP will give an idea and lead to environmental attributes.
<b>Identification of impacts and risks.</b> Describe the process that will be used to identify impacts and risks.	The activities that will take place according to the Prospecting Works Programme were discussed in detail with the applicant on site. With the specific environmental setting in mind and more specifically, the type of soil, soil depth, land use, vegetation type, the distances to open water and structures, the EAP will be able to identify potential impact areas where significant impacts might occur and the risks thereof. The methods of rehabilitation that need to be done, in order to meet the objective of the final land use will also be taken in consideration.
<b>Consideration of alternatives.</b> Describe how alternatives, and in particular the alternatives to the proposed site layout and possible alternative methods or technology to be applied will be determined.	The prospecting will be done in 2 phases namely: Phase 1 - Geological surveys & Phase 2 - Drilling The site will be visited before the EMP/EIA is compiled. The different site alternatives will be discussed with the applicant on site. The entire application area will be visited and areas that might be environmentally sensitive will be identified. The proposed impacts and mitigations will also be discussed.
<b>Process to assess and rank impacts.</b> Describe the process to be undertaken to identify, assess and rank the impacts and risks each individual activity.	The site was visited before the EMP/EIA is compiled. The different site alternatives will be discussed with the applicant on site. The entire application area will be visited and areas that might be environmentally sensitive will be identified. The proposed impacts and mitigations will also be discussed. The EAP [with 21 years' experience in prospecting and mining activities] will assess the specific site for possible impacts. The assessment of impacts will be done according to a synthesis of the following assessment criteria: - Nature of the impact - Extent (spatial scale) - Duration - Magnitude or intensity of the impact (severity) - Probability The criteria that will be used to determine significance as described below: Nature of the impact: This is an appraisal of the type of effect the activity would have on the affected environment. The description includes how and what is being affected, whether it is positive or negative, as well as whether it is direct or indirect.



February 1, 2018

<p><b>Contribution of specialist reports.</b> Describe how specialist reports, if required, will be taken into consideration and inform the impact identification, assessment and remediation process.</p>	<p>No specialist reports required at this stage, unless specifically requested.</p>
<p><b>Determination of impact management objectives and outcomes.</b> Describe how impact management objectives will be determined for each activity to address the potential impact at source, and how the impact management outcomes will be aligned with standards.</p>	<p>The Nature of the impact: This is an appraisal of the type of effect the activity would have on the affected environment. The description includes how and what is being affected, whether it is positive or negative, as well as whether it is direct or indirect. Each impact will be assessed and quantified, and management objectives according to the first two steps, will be set. The management of the objective will aligned with the significance of the impact, as well as to ensure a positive outcome. The outcomes will be aligned with standards on environmental management and rehabilitation of prospecting areas according to Department Mineral Resources.</p>

**e) Policy and Legislative Context**

<p><b>APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT</b> <small>(a description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process)</small></p>	<p><b>REFERENCE WHERE APPLIED</b></p>	<p><b>HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE LEGISLATION AND POLICY CONTEXT.</b> <small>(E.g. in terms of the National Water Act a Water Use License has/ has not been applied for)</small></p>
<p>National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA)</p>	<p>EA Authorization</p>	<p>EA authorization submitted and acknowledged</p>
<p>National Environmental Management Act, 1998 (Act 107 of 1998): Environmental Impact Assessment Regulations, 2014 (G38282 – R982-985)</p>	<p>BAR/EMPR</p>	<p>Basic Assessment submitted</p>
<p>World Heritages Convention Act, 1999 (Act 49 of 1999)</p>	<p>Heritage</p>	<p>Existing heritage area will be fenced off and no prospecting within 50 m</p>
<p>Conservation of Agricultural Resources Act, No. 43 of 1983</p>	<p>Weeds &amp; invaders</p>	<p>To be implemented in monitoring programme.</p>

**f) Need and desirability of the proposed activities.**

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

The portions over which the application was applied for is over an area of a farm portion. There don't seem to be any pre-prospecting disturbance and the area is under natural vegetation. The structures found on site are an entrance road and watering facilities for cattle. The applicant is also the landowner. There are no buildings on the application area.. Access to the farm is gained by an existing farm road from the R 557 tar road. See **Figure 3** below for Google Earth Images of proposed area. The area will be prospected and rehabilitated. The prospecting focus area will be clearly demarcated. The area applied for is over the demarcated portion only. After prospecting the land will be rehabilitated and could be used for grazing again.

**Figure 3: Google Earth Images**



February 1, 2018

**g) Motivation for the overall preferred site, activities and technology alternative.**

The applicant envisaged that the applied minerals might be present on this property and therefore the application for a prospecting right for drilling only in order to confirm with the minimal disturbance to the environment if an economical mineral resource of some of these minerals could be determined. The full portion of the farm as on the registered title deed was applied for in order to include the entire area. Phase 1 – 2 of the prospecting activity will be geological surveys by a geologist which will confirm the preferred areas to be drilled. The areas to be used on the layout plan for the drilling activity are only envisaged areas determined by the outcrops in these areas.

**h) Full description of the process followed to reach the proposed preferred alternatives within the site.**

NB!! – This section is about the determination of the specific site layout and the location of infrastructure and activities on site, having taken into consideration the issues raised by interested and affected parties, and the consideration of alternatives to the initially proposed site layout.

**The mineral**

The prospecting area was identified through aerial photographs and evidence from historical mining activities in the area. The extent of the prospecting area will be 273 hectares. Information from Geological surveys will be used in order to determine where the drilling will take place. This will in turn help to determine the boundaries of the proposed prospecting area for more detailed surveying.

**The extend**

The identified and demarcated application area which is 268 hectares in total including the entire prospecting area of 0.5 ha will be used for prospecting including the drilling areas.

**PHASE 1:****Geophysical and magnetical surveys**

The geophysical and magnetical surveys will be conducted by a professional surveyor and geologist. Geologists from the company Jankowitz Consulting will be used for the geological and mapping work. Instruments will be used which will send magnetic impulses through the soil which will reflect the different layers of geology. Ground gravity surveys are applied in order to outline sinkhole positions and size accurately. A ground gravity survey will be applied on the prospecting area to supplement existing airborne gravity data. Ground gravity surveys are carried out on a grid layout. The grid is placed in the field through the use of a total station or real time GPS system. Gravity readings and accurate elevations are recorded at each station of the grid. The grid that will be used is a 100m x 100m and if there are any anomalies in the data the grid is tightened to 50m x 25m. The smaller grid increases the resolution and smaller features then become visible. It is envisaged that at least 100 gravity points will be needed to delineate the sinkholes and other deep features. The gravity data as well as the historical data will be evaluated and used to determine where the drilling of phase 2 will take place. **Phase 1 will take 10 months.**

**PHASE 2:****Diamond Drilling Method**

Phase 2 consists of reconnaissance drilling. The proposed drilling program consisting of 10 holes. Phase 2 will also consist of detailed drilling (15 boreholes) within the determined target areas, as outlined underneath and, to delineate the ore body accurately, and to determine depth to bedrock and internal stratigraphic composition of the ore body. Using a variety of drilling rigs, rods and bits, the ore body can be evaluated by drilling intersecting holes at locations predetermined by the Geologist. Drilling is done in phases, over anomalous target areas, using reconnaissance lines or a grid of 250x250m depending on the level of confidence in the targets and the level of information required. The holes will be approximately 30 metres deep depending on local depth to bedrock. The core will be drilled using a Diamond drilling rig, with a rotating diamond cutting head that will cut the core. The core will be drilled with NQ rods, and will be extracted every 3m. Water will be pumped into the core barrel to ensure the quality of the recovery of the core. Thereafter it will be packed out in core trays, marked and sampled to retrieve the necessary information. The ore body model will be generated in Surpac or



February 1, 2018

Minesight software – further prospecting requirements and sampling will be based on this model. **The drilling will take 24 months.**

### **The grade**

The grade will be confirmed by the drilling results.

## **i) Details of the development footprint alternatives considered.**

With reference to the site plan provided as Appendix 4 and the location of the individual activities on site, provide details of the alternatives considered with respect to:

- (a) the property on which or location where it is proposed to undertake the activity;  
The applicant wants to explore the minerals on the application area only. There are no alternative for the property as the application is for these properties only.
- (b) the type of activity to be undertaken;  
The activity of prospecting will entails only geological surveying and drilling of 15 boreholes. The type of activity is in line with the submitted Prospecting Works Programme.
- (c) the design or layout of the activity;  
Phases 1 – 2 of the prospecting works programme will be geological surveys where the area that will be drilled will be determined and confirmed. The layout of the activity will be finally determined after phase 2 of the prospecting. As this will only be drilling of 15 boreholes all the drilling sites will be exactly the same. **There will be only one drilling site active at a time. It is envisage that the footprint of one drilling site will be 10m x 10m, thus 0.01 hectares. The total disturbance of all 15 boreholes will be 0.15 hectares.**
- (d) the technology to be used in the activity;  
The technology used in the activity will as described in the Prospecting Works Programme Phases 1 – 2 and the best options will be determined by the geologist after phases 1 & 2.
- (e) the operational aspects of the activity; and  
The operational aspect is only the drilling activity of 15 boreholes. The alternative can only be if the geological surveys shown no traces of mineral to be drilled for.
- (f) the option of not implementing the activity.  
This option might only be possible if the geologist abandon the project after phase 2.

## **ii) Details of the Public Participation Process Followed**

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

The process as described by NEMA for Environmental Authorization was followed. See **Table 3 & 4** below for the identification of Interested and Affected Parties to be consulted with. The land is privately owned, and the landowners were personally consulted by the applicant. A site notice was placed at the entrance gate. With this site notice all passers-by are requested to submit any written comments to be forwarded to the consultant. An advertisement was placed in the Noordwester newspaper of 2 February 2018. A public meeting was hold at Ottosdal on 8 February 2018. A copy of the BAR was send by registered post to all involved State Departments and given 30 days to comment. The comments that will be received in the 30 day period will be incorporate into the amended document. See proof of consultation under **Appendix 2**. The Public Participation process is still ongoing and the documents will be updated when more feedback is received.

February 1, 2018

**Table 3: Description of process to be undertaken to consult interested and affected parties**

IDENTIFICATION CRITERIA	Mark with an X where applicable	
	YES	NO
Will the landowner be specifically consulted?	X	
Will the lawful occupier on the property other than the Landowner be consulted?	X	
Will a tribal authority or host community that may be affected be consulted?		X
Will recipients of land claims in respect of the area be consulted?	X	
Will the landowners or lawful occupiers of neighbouring properties been identified?	X	
Will the local municipality be consulted?	X	
Will the Authority responsible for power lines within 100 metres of the area be consulted?		X
Will the Authorities responsible for public roads or railway lines within 100 metres of the area applied for be consulted?		X
Will the Authorities responsible for any other infrastructure within 100 metres the area applied for be consulted? (Specify)		X
Will the Provincial Department responsible for the environment be consulted?	X	
Will all of the parties identified above be provided with a description of the proposed mining/prospecting operation as referred above?	X	
Will all the parties identified above be requested in writing to provide information as to how their interests (whether it be socio-economic, cultural, heritage or environmental) will be affected by the proposed mining project?	X	
Other, Specify		

**Table 4: Furthermore the details of the engagement process to be followed are as reflected below.**

<p><b>Steps to be taken to notify interested and affected parties</b> (Describe the process to be undertaken to consult interested and affected parties including public meetings and one on one consultation. NB the affected parties must be specifically consulted regardless of whether or not they attended public meetings. Photographs of notice and copies of advertisements and notices notifying potentially interested and affected parties of the proposed application are attached as Appendix 2).</p>	<p><b>PROVIDE DESCRIPTION HERE</b> The landowners were consulted with in person and confirmation letters were signed. The neighbours were also informed personally, consulted by the applicant and confirmed in the writing. A consultation letter was sent to the Local Municipality of Ottosdal An advertisement will be placed in the local newspaper.</p>
<p><b>Information to be provided to interested and Affected Parties.</b></p>	<p><b>Compulsory</b> The site plan. List of activities to be authorized Scale and extent of activities to be authorized Typical impacts of activities to be authorized (e.g. surface disturbance, dust, noise, drainage, fly rock etc.) The duration of the activity. Sufficient detail of the intended operation to enable them to assess what impact the activities will have on them or on the use of their land)</p> <p><b>Other, specify:</b> a prospecting works programme</p>
<p><b>Information to be required from interested and Affected Parties.</b></p>	<p><b>Compulsory</b> To provide information on how they consider that the proposed activities will impact on them or their socio-economic conditions To provide written responses stating their suggestions to mitigate the anticipated impacts of each activity To provide information on current land uses and their location within the area under consideration To provide information on the location of environmental features on site to make proposals as to how and to what standard the impacts on site can be remedied. requested to make written proposals To mitigate the potential impacts on their socio economic conditions to make proposals as to how the potential impacts on their infrastructure can be managed, avoided or remedied).</p> <p><b>Other, Specify</b></p>

February 1, 2018

February 1, 2018

iii)

**Summary of issues raised by I&As**

(Complete the table summarising comments and issues raised, and reaction to those responses  
See Appendix 2 for full detail on public participation.

**Table 5: Summary of Identified I&A's**

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an 'X' where those who must be consulted were in fact consulted.		Date sent and/or Comments Received	Issues raised	EAP's response to the applicant
<b>AFFECTED PARTIES</b>				
<b>Landowner/s</b>				
Jim Foster Landgoed CC (Landowner) (Engelina Jonker) P.O. Box 1, Ottsdal, 2610 Tel: 018 571 0036 E-mail: susan@fosterprok.co.za		8 Jan 2018	The applicant is also the landowner	
Lawful occupier/s of the land				
Me. M. Tait (Occupier) P.O. Box 571, Ottsdal, 2610 Cell: 071 698 6463 E-mail: johntait@ruemw.co.za		8 Jan 2018 14 Feb 2018	No objection Rehabilitation must be done properly	
<b>Landowners or lawful occupiers on adjacent properties</b>				
Mr. J.P. Otho (Neighbours on the farm Droëkraal) P.O. Box 253, Ottsdal, 2610 Cell: 082 774 3993 Fax: 086 750 9976 E-mail: jpotho@lanico.net		8 Jan 2018 16 Feb 2018	No objection, see consultation letter attached.	
Municipal councillor				
<b>Municipality</b>				
Ditsobotla Local Municipality LED officer: Mr. M. Jata (acting) Fax: 018 632 5247 E-mail: dgoameje@ditsobotla.co.za		8 Jan 2018 24 Jan 2018	Fax : not working E-mail sent – no response received	
<b>Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA.</b>				
Eskom				
<b>Communities</b>				
N/A				
<b>Dept. Land Affairs</b>				
KeabetsweMothupi Keabetswe.mothupi@drdlr.gov.za		8 Jan 2018	E-mail sent – no response yet received	
<b>Traditional Leaders</b>				
N/A				
<b>Dept. Rural, Environment and Agricultural Development</b>				
DumaSkosana Agricentre Building, Cnr James Moroka& Stadium Road, Mmabatho, 2735 E-mail: oskosana@mwpg.gov.za		February 2018	BAR sent with Fastway couriers for comments	No comments received
<b>Dept. Water and Sanitation</b>				

JIM FOSTER LANDGOED CC – DRIEKUJIL 280 IP – NW30/5/1/1/2/12235 PR

February 1, 2018

<p>Clement Makwela Cnr Dr James Moroka Drive &amp; Sekame Road, Mega City Complex, Unit 99, Mmabatho, 2735 Tel: 073 186 0866 E-mail: makwelac@dwa.gov.za</p>	<p>February 2018</p>	<p>BAR sent with Fastway couriers for comments</p>	<p>No comments received</p>
<p><b>Dept. Agriculture, Forestry and Fisheries</b> Maurice Vukoya Louis le Grange Building, Cnr Pieter Mokaba &amp; Wolmarans street, 3rd Floor, Office no 318, Potchefstroom, 2520 Tel: 018 294 3343 E-mail: MauriceV@daff.gov.za</p>	<p>February 2018</p>	<p>BAR sent with Fastway couriers for comments</p>	<p>No comments received</p>
<p><b>Other Competent Authorities</b></p>	<p>February 2018</p>	<p></p>	<p>No comments received</p>
<p>SAHRIS P.O. Box 4637, Cape Town, 8000 Tel: 021 462 4502 Fax: 021 462 4509 E-mail: info@sahra.org.za</p>	<p>February 2018</p>	<p></p>	<p>No comments received</p>
<p><b>OTHER AFFECTED PARTIES</b></p>	<p></p>	<p></p>	<p></p>
<p><b>INTERESTED PARTIES</b></p>	<p></p>	<p></p>	<p></p>
<p>Wonderstone Limited Environmental Officer: Marisa Plenaar Private Bag X03, Northlands, 2116 Tel: (011) 770 6827 Fax (011) 268 6918</p>	<p>2 March 2018</p>	<p>E-mail received Registered as Interested Party</p>	<p></p>

Public Notice - Noordwester 2 Feb 2018

February 1, 2018

iv) **The Environmental attributes associated with the alternatives.**

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

(1) **Baseline Environment**

**Introduction:**

The purpose of this section is to provide information on the environment in which the proposed prospecting activities will take place, with a view to identify sensitive issues/areas, which need to be considered when conducting the impact assessment.

The application is over: **Portion 5 (Port of portion 1) of the farm Driekuil 280 IP**. This area can be described as farming land with 50% cultivated fields and 50% natural vegetation, see **Figure 3** Google Earth Images.

**Magisterial District:**

This site is situated just outside the town of Ottosdal which falls under the district of Lichtenburg. It is within the Local Municipality of Tswaing and within in the district of Ngaka Modiri Molema.

**Direction from neighbouring town:**

The site is situated approximately 7 min (6.6 km) from the Saps - Ottosdal via Voortrekker Street, Ottosdal, 2610. Or 1 h 1 min (83.4 km) via R505 Lichtenburg SAPS, 60 Scholtz Street, Lichtenburg, 2740. From SAPS – Ottosdal head north on Otto Street toward Voortrekker Street for 60 m. Turn right at the 1st cross street onto Voortrekker Street and drive for 1.0 km. Turn left after 650 m and continue onto Koster Street. The proposed site is situated on the right after 4.9 km. See Location of proposed site on Locality Map **Appendix 1(b)**.

**Longitude (approximate center of prospecting site):**

26.041748 E

**Latitude (approximate center of prospecting site):**

-26.773890 S

**Existing Surface Infrastructure:**

The existing infrastructure consists of an entrance road and farm structures. There is a Mining permit area over the area, what was excluded from this area. See **Appendix 1(a)** for Infrastructure Map.

(a) **Type of environment affected by the proposed activity.**

(its current geographical, physical, biological, socio-economic, and cultural character).

According VEGMAP (2006) classified this area as part of the (Gh 13) Klerksdorp Thornveld area. VT 50 Dry Cymbopogon—Themeda Veld (44%). VT 19 Sourish Mixed Bushveld (29%) (Acocks 1953). LR 37 Dry Sandy Highveld Grassland (70%) (Low & Rebel\* 1996).

**Distribution:** North-West Province: In two sets of patches, one in the Wolmaransstad, Ottosdal and Hartbeesfontein region, and the other from the Botsolano Game Park north of Mafikeng to the vicinity of Madibogo in the south. Altitude 1 260-1 580 m.

February 1, 2018

**Climate:**

Warm-temperate, summer-rainfall region, with overall MAP of 533 mm. Summer temperatures are high. Frequent frosts occur in winter.

**Geology and Soils:**

Shale, slate and quartzite of the Pretoria Group with interlaid diabase sills and Hekpoort lava supporting relatively shallow and rocky soils (Glenrosa and Mispah forms), typical of the Fb land type. Equally represented are eutrophic red plinthic soils (Hutton form), derived mainly from a thick succession of volcanics and sediments of the Ventersdorp Supergroup (Bc land type). Bd and Ae of minor occurrence.

**Vegetation [Flora] and Landscape Features:**

Plains or slightly irregular undulating plains with open to dense *Acacia karroo* bush clumps in dry grassland.

**Important Taxa:**

**Small Trees:** *Acacia karroo* (d), *A. caffra*, *Celtis africana*, *Rhus lancea*, *Ziziphus mucronata*.  
**Tall Shrubs:** *Acacia hebeclada*, *Diospyros lycioides* subsp. *lycioides*, *Ehretia rigida*, *Grewia flava*, *Gymnosporia buxifolia*, *Rhus pyroides*, *Tarchonanthus camphoratus*. **Woody Climber:** *Asparagus africanus*. **Low Shrubs:** *Asparagus laricinus* (d), *A. suaveolens* (d), *Felicia muricata* (d), *Anthospermum hispidulum*, *A. rigidum* subsp. *pumilum*, *Aptosimum elongatum*, *Gnidia capitata*, *Gomphocarpus fruticosus* subsp. *fruticosus*, *Helichrysum dregeanum*, *Leucas capensis*, *Pavonia burchellii*, *Pentzia globosa*, *Solanum supinum* var. *supinum*, *Triumfetta sonderi*, *Ziziphus zeyheriana*. **Graminoids:** *Aristida congesta* (d), *Cynodon dactylon* (d), *Eragrostis lehmanniana* (d), *E. trichophora* (d), *Microchloa caffra* (d), *Panicum coloratum* (d), *Sporobolus fimbriatus* (d), *Themeda triandra* (d), *Andropogon schirensis*, *Antheophora pubescens*, *Aristida junciformis* subsp. *galpinii*, *A. stipitata* subsp. *graciliflora*, *Brachiaria nigropedata*, *B. serrata*, *Bulbostylis burchellii*, *Cymbopogon pospischilii*, *Digitaria eriantha*, *Diheteropogon amplexans*, *Elionurus muticus*, *Eragrostis curvula*, *E. obtusa*, *E. racemosa*, *F. superba*, *Eustachys paspaloides*, *Heteropogon contortus*, *Setaria sphacelata*, *Sporobolus africanus*, *Tragus berteronianus*, *Trichoneura grandiglumis*, *Triraphis andropogonoides*. **Herbs:** *Acalypha angustata*, *Acanthospermum australe*, *Berkheya onopordifolia* var. *onopordifolia*, *B. setifera*, *Blepharis integrifolia* var. *clarkei*, *Chamaesyce inaequilatera*, *Chascanum adenostachyum*, *Dicoma macrocephala*, *Helichrysum nudifolium* var. *nudifolium*, *Hermannia lancifolia*, *Hibiscus pusillus*, *Justicia anagalloides*, *Lippia scaberrima*, *Nidorella microcephala*, *Nolletia ciliaris*, *Pollichia campestris*, *Rhynchosia adenodes*, *Salvia radula*, *Selago densiflora*, *Teucrium trifidum*, *Tolpis capensis*. **Geophytic Herbs:** *Bulbine narcissifolia*, *Ledebouria marginata*, *Omithogalum tenuifolium* subsp. *tenuifolium*, *Raphionacme hirsuta*. **Herbaceous Climber:** *Rhynchosia venulosa*. See **Figure 7** below.

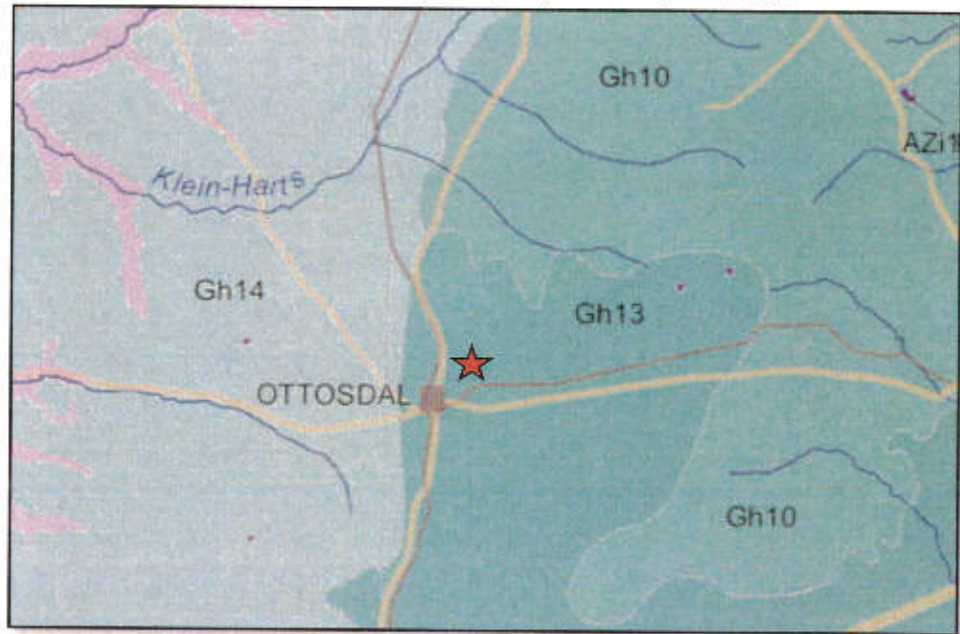
**Conservation:**

Conservation Vulnerable. Target 24%. Only about 2.5% conserved in the statutory Mafikeng Game Reserve, private Botsolano Game Park and Faan Meintjes Nature Reserve. Almost a third already transformed for cultivation and by urban sprawl. This vegetation unit has a high grazing capacity and this leads to overutilization and degradation, and subsequent invasion of *Acacia karroo* into adjacent dry grassland. Due to the great habitat and floristic diversity and for aesthetical reasons, the landscape deserves to be conserved. References Louw (1951), Morns (1973, 1976), aredenkamp & Bezuidenhout 1990), Bezuidenhout (1993), Bezuidenhout et al. (1994c, d).



February 1, 2018

Figure 4: (Gh 8) Klerksdorp Thornveld

**Animal Life [Fauna]:**

Small animals common in this area include: Steenbuck, Duiker, Jackal and Meerkat and Guinea Fowl.

**Topography:**

Plains or slightly irregular undulating plains. The slope varies around <math><0.1\%</math> to not more than 1%.

**Surface Water:**

This site falls in Lower Vaal (10) water management area as classified by the Department of Water Affairs, under tertiary drainage region C31 and quaternary catchment C31C. There is no open water or streams within 5km distance of the application area. River diversion is not applicable.

**Ground Water:**

Presence of water boreholes and springs: There are no boreholes on the application area. Ground water use: The applicant intends to use water from current boreholes at the municipal land. The water uses will be 2m<sup>3</sup> a day for the dust suppression only. The current ground water uses in the vicinity of the study area are prospecting and residential.

**Air Quality:**

The air quality should be within normal levels as this a rural area, with no big industries near. However, agricultural activities in the surrounding areas can also contribute to the air quality seasonally. The drilling rig only creates very localized dust, but since it is a wet process it is not seen to be noticeable. This impact will be low and will be monitored and mitigated through suppressing the dust by wetting the roads.

**Noise:**

The impact of noise will only start where noise from the prospecting equipment will be generated. This operation will only be in day time working hours and will have a low impact on current surroundings.

February 1, 2018

**Sites of Archaeological and Cultural Interest:**

No graves. There is a site of archaeological interest on the application area which will be fenced off and no prospecting activities within 50m. See Specialist study attached.

According to Section 36(3) of the National Heritage Resources Act 25 of 1999 no person may, without a permit issued by SAHRA or a provincial heritage resources authority—

(a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;

(b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or

(b) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals. It is recommended that the graveyard is included in the overall management plan of the mine development. Preservation of the site will require that the area is properly demarcated with at least a 20m buffer zone placed around the graveyard in order to avoid potential damage during prospecting activities. It will be necessary to ensure that the graveyard is accessible to the relatives of the deceased.

There are no major archaeological grounds to halt the proposed development. However, the potential occurrence of unmarked graves or subsurface finds not recorded during this survey can never be excluded, so it is advised that SAHRA and a qualified archaeologist are informed immediately if archaeological objects are uncovered.

**Sensitive Landscapes**

There were no sensitive landscapes identified on the site visit.

**Visual Aspects**

These prospecting activities will be clearly visible from the tar road and to passersby and adjacent neighbor. There are no mitigated as the site is situated next to the road.

**Social**

The proposed activity will employ 3 people, of which a few are resident around the operation. Various social amenities are available close to the operation. These include schools, hospitals churches, recreation facilities as well as a Police Station at Ottosdal, which is located approximately 6.6 km south-west of the operation.

(b) Description of the current land uses.  
100 % is under natural vegetation.

(c) Description of specific environmental features and infrastructure on the site.

Please refer to Section 2(d)(ii) Table 2 for a description of the activities and infrastructure which are foreseen to form part of the proposed activity. The existing infrastructure consist of an entrance roads and cattle watering infrastructure. See **Appendix 1(a)** and **1(b)** for photos and map of existing infrastructure.

February 1, 2018

(d) **Environmental and current land use map.**

(Show all environmental and current land use features)

Current land-use of the application area consists out of 50 % is under natural vegetation and 50% under cultivation. See **Appendix 1(a)** and **1(b)** [Infrastructure Map & Photos] for more detail.

v) **Impacts and risks identified including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts**

The proposed project is anticipated to impact on a range of biophysical and socio-economic aspects of the environment. The main purpose of the BAR/EMPr report is to identify and evaluate the significance of these potential impacts and determine how they can be minimized or mitigated.

It should be noted that a comprehensive Environmental Management Program (EMPr) will be developed and implemented to regulate and minimize the direct, indirect and cumulative impacts during the construction and operational phases. The potential environmental impacts identified, which will be investigated further in the Impact Assessment Phase of the project are summarized.

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

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

**Introduction:**

This document attached, describes and evaluates the effects of the different prospecting projects and the associated activities on the natural and social environments.

The different environmental components, on which the project (can/may) have an impact, are:

- |                          |                                       |
|--------------------------|---------------------------------------|
| 1. Geology               | 9. Ground Water                       |
| 2. Topography            | 10. Air Quality                       |
| 3. Soil                  | 11. Noise                             |
| 4. Land Capability       | 12. Archaeological and Cultural sites |
| 5. Land Use              | 13. Sensitive Landscapes              |
| 6. Vegetation            | 14. Visual Aspects                    |
| 7. Wildlife              | 15. Socio-economic Structure          |
| 8. Surface Water Parties | 16. Interested and Affected           |

**IMPACT ASSESSMENT**

Before the impact assessment could be done the different project activities were identified:

**ACTIVITIES:**

- Access Roads (Existing farm roads to be upgraded)
- Prospecting equipment (drilling rig)

**Environmental Impact Assessment Summary:**

- Environment likely to be affected by the prospecting operation. (See Appendix 1(a) for location)**

Environmental aspect	Affected		Not affected
	Negligible	Substantial	
1. GEOLOGY		X	
2. TOPOGRAPHY	X		

February 1, 2018

3. SOIL		X	
4. LAND CAPABILITY		X	
5. LAND USE	X		
6. VEGETATION		X	
7. WILDLIFE	X		
8. SURFACE WATER			X
9. GROUND WATER	X		
10. AIR QUALITY	X		
11. NOISE	X		
12. SENSITIVE LANDSCAPES			X
13. VISUAL ASPECTS	X		
14. SOCIO ECONOMICS	X		
15. INTERESTED & AFFECTED PARTIES	X		
16. ARCHAEOLOGICAL			X

- **Environment likely to be affected by the alternative land use**

Prospecting will be a new land use over this area. The site that is earmarked for prospecting represents ± 0.5 % of the total area applied for. And it is further not foreseen that prospecting activities would disturb an area of more than 2687 ha in total. The rest of the terrain would continue to be used for agriculture purposes by the landowner.

- **Assessment of the impacts created by the prospecting activity**

Before any assessment can be made the following evaluation criteria need to be described:

*Explanation of probability of impact occurrence*

Probability of impact occurrence	Explanation of probability
Very low	<20% sure of particular fact or likelihood of impact occurring.
Low	20 to 39% sure of particular fact or likelihood of impact occurring.
Moderate	40 to 59% sure of particular fact or likelihood of impact occurring.
High	60 to 79% sure of particular fact or likelihood of impact occurring.
Very high	80 to 99% sure of particular fact or likelihood of impact occurring.
Definite	100% sure of particular fact or likelihood of impact occurring.

*Explanation of extent of impact*

Extend of impact	Explanation of extend
Site specific	Direct and indirect impacts limited to site of impact only.
Local	Direct and indirect impacts affecting environmental elements within the Coligny area.
Regional	Direct and indirect impacts affecting environmental elements within North West Province.
National	Direct and indirect impacts affecting environmental elements on a national level.
Global	Direct and indirect impacts affecting environmental elements on a global level.

*Explanation of duration of impact*

Duration of impact	Explanation of duration
Very short	Less than 1 year
Short	1 to 5 years
Medium	6 to 12 years
Long	13 to 50 years
Very long	Longer than 50 years
Permanent	Permanent

*Explanation of impact significance*

Impact significance	Explanation of significance
No impact	There would be no impact at all - not even a very low impact on the system or any of its parts.
Very low	Impact would be negligible. In the case of negative impacts, almost no mitigation and/or remedial activity would be needed, and any minor steps, which might be needed, would be easy, cheap and simple. In the case of positive impacts, alternative means would almost all likely to be better, in one or a number of ways, than this means of achieving the benefit.



February 1, 2018

Low	Impact would be of a low order and with little real effect. In the case of negative impacts, mitigation and/or remedial activity would be either easily achieved or little would be required, or both. In case of positive impacts, alternative means for achieving this benefit would likely be easier, cheaper, more effective, less time-consuming, or some combination of these.
Moderate significance	Impact would be real but not substantial within the bounds of those which could occur. In the case of negative impacts, mitigation and/or remedial activity would be both feasible and fairly easily possible. In the case of positive impacts, other means of achieving these benefits would be about equal in time, cost and effort.
High significance	Impacts of a substantial order. In the case of negative impacts, mitigation and/or remedial activity would be feasible but difficult, expensive, time-consuming or some combination of these. In the case of positive impacts, other means of achieving this benefit would be feasible, but these would be more difficult, expensive, time-consuming or some combination of these.
Very high significance	Of the highest order possible within the bounds of impacts which could occur. In the case of negative impacts, there would be no possible mitigation and/or remedial activity to offset the impact at the spatial or time scale for which it was predicted. In the case of positive impacts, there is no real alternative to achieving the benefit.

**vii) 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.**

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

**Assessment of the nature, extent, duration, probability and significance of the potential environmental, social and cultural impacts of the proposed prospecting operation, including the cumulative environmental impacts.**

ASPECT	IMPACTS				CUMULATIVE IMPACTS
<b>1. GEOLOGY</b>					
Nature of the impact	Geology (drilling of 15 boreholes). During drilling.				
Extent	Site				Activity causing the impact
Duration	Permanent				Small impact on geology by drilling holes.
Probability	Definite				
Significance	Very low				
Phase responsible for the impact	Construction	Operational	Decommissioning	Closure	
		X			

ASPECT	IMPACTS				CUMULATIVE IMPACTS
<b>2. SOIL</b>					
Nature of the impact	The surface area is characterized by various soil depths. Any construction of infrastructure should be preceded by the removal of all available topsoil.				
Extent	Site				Activity causing the impact
Duration	Short				In the process of removing topsoil the soil layers might be mixed and the structure may be disturbed.
Probability	High				
Significance	Moderate				
Phase responsible for the impact	Construction	Operational	Decommissioning	Closure	
	X	X			

ASPECT	IMPACTS				CUMULATIVE IMPACTS
<b>2. SOIL</b>					
Nature of the impact	The drilling rig and vehicle movement, cause compaction of soil only on the small drilling plots of 10m x 10m. Possible spillages of fuel.				
Extent	Site				Activity causing the impact
Duration	Short				Prospecting within the application boundaries
Probability	Low				
Significance	Low				
Phase responsible for the impact	Construction	Operational	Decommissioning	Closure	
	X	X			

ASPECT	IMPACTS				CUMULATIVE IMPACTS
<b>2. SOIL</b>					
Nature of the impact	Potential of soil contamination.				None.
Extent	Site				Activity causing the impact
Duration	Short				Vehicle/equipment breakages and oil/lubricant/diesel spills may contaminate
Probability	Low				

February 1, 2018

Significance	Low				soil.
Phase responsible for the impact	Construction	Operational	Decommissioning	Closure	
		X	X	X	

ASPECT	IMPACTS				CUMULATIVE IMPACTS
<b>3.LAND CAPABILITY</b>					
Nature of the impact	Temporary loss of land capability to support cultivation. The intended area for the drilling sites is currently used for grazing of cattle and or cultivation of cash crops. Only a very small area of 10 x 10m thus 1500m <sup>2</sup> at any time.				
Extent	Site				Activity causing the impact
Duration	Short				Active drilling site only one at a time.
Probability	Definite				
Significance	Low				
Phase responsible for the impact	Construction	Operational	Decommissioning	Closure	
	X	X	X	X	

ASPECT	IMPACTS				CUMULATIVE IMPACTS
<b>4. LAND USE</b>					
Nature of the impact	Currently the land is used for grazing and cultivation of cash crops. Only the small active drilling site of 0.15 hectare will not be used during prospecting.				
Extent	Site				Activity causing the impact
Duration	Short				Drilling site.
Probability	Definite				
Significance	Low				
Phase responsible for the impact	Construction	Operational	Decommissioning	Closure	
	X	X			

ASPECT	IMPACTS				CUMULATIVE IMPACTS
<b>5.VEGETATION</b>					
Nature of the impact	Vegetation clearance, disturbance and trampling. Destruction of habitats for vegetation. Due to a disturbed ecosystem, bare ground and spreading of exotics can follow. Very small area of only 1500m <sup>2</sup> at a time.				
Extent	Site				Activity causing the impact
Duration	Short				The site preparation of the active drilling site.
Probability	Definite				Due to a disturbed ecosystem, bare ground and invasion of exotics could further spread.
Significance	Low				The vegetation needs to be cleared to remove the topsoil.
Phase responsible for the impact	Construction	Operational	Decommissioning	Closure	
	X	X			

ASPECT	IMPACTS				CUMULATIVE IMPACTS
<b>6.VEGETATION</b>					
Nature of the impact	Habitat change, loss of species, spread of alien and invasive species.				
Extent	Site				Activity causing the impact
Duration	Short				The change in the current habitat will be mitigated during final rehabilitation.
Probability	Moderate				
Significance	Low				
Phase responsible for the impact	Construction	Operational	Decommissioning	Closure	
	X	X			

ASPECT	IMPACTS				CUMULATIVE IMPACTS
<b>7. WILDLIFE</b>					
Nature of the impact	Wildlife or wildlife habitat destruction /change / disturbance. This impact will be very low as only 1500m <sup>2</sup> will be disturbed within an application area of 268 hectares.				None
Extent	Site				Activity causing the impact
Duration	Medium				The flora which normally serves as habitat for

February 1, 2018

Probability	High				animals would be destroyed during site preparation. The increase in activity will temporarily scare other animals. The area will serve as a new habitat after rehabilitation. The area of disturbance will be very small thus the impact very low.
Significance	Low				
Phase responsible for the impact	Construction	Operational	Decommissioning	Closure	
	X	X			

ASPECT	IMPACTS				CUMULATIVE IMPACTS
<b>7. WILDLIFE</b>					
Nature of the impact	Restoration of habitat.				None
Extent	Site				Activity causing the impact
Duration	Short				As rehabilitation progresses the habitat of certain species will be restored/created (Closure objective) Animals will probably only move back when human movement is limited.
Probability	Low				
Significance	Low				
Phase responsible for the impact	Construction	Operational	Decommissioning	Closure	
			X	X	

ASPECT	IMPACTS				CUMULATIVE IMPACTS
<b>8. SURFACE WATER</b>					
Nature of the impact	In this area there is no open water or rivers on this application area. Clearing topsoil for footprint areas can increase infiltration rates of water to the groundwater system and decrease buffering capacity of soils to absorb contaminants from spills on surface. This can increase the risk of contamination of the groundwater system. The area of disturbance will be very small only 1500m <sup>2</sup> that this impact will be negligible.				
Extent	Local				Activity causing the impact
Duration	Short				The clearance of vegetation and the traffic on access roads might all contribute to an increase in the silt load on the prospecting area.
Probability	Very low				
Significance	Very low				
Phase responsible for the impact	Construction	Operational	Decommissioning	Closure	
	X	X			

ASPECT	IMPACTS				CUMULATIVE IMPACTS
<b>8. SURFACE WATER</b>					
Nature of the impact	Change in surface water quality. Spillages from vehicles and also surface water run-off that is not adequately diverted away from the active prospecting activities could creating problems regarding water quality and hindering the prospecting process. If the natural surface run-off is not adequately diverted in the case of the dry-water course area, prospecting sections it could become silted-up. As this area is very small only 0.15 hectares the impact of surface water will be very low				
Extent	Local				Activity causing the impact
Duration	Short				There should be no accumulative impact with regards to surface water as the drilling rig only causes a small hole and no excavations are planned under this right.
Probability	Very low				
Significance	Very Low				
Phase responsible for the impact	Construction	Operational	Decommissioning	Closure	
	X	X			

ASPECT	IMPACTS				CUMULATIVE IMPACTS
<b>10. AIR QUALITY</b>					
Nature of the impact	Dust will be generated during the drilling operation and vehicles on gravel/dirt/farm roads.				
Extent	Site				Activity causing the impact
Duration	Short				During the operational, dust will be generated as indicated as part of the prospecting activities. The current agricultural activities caused more dust than what these prospecting activities will do.
Probability	Moderate				
Significance	Low				
Phase responsible for the impact	Construction	Operational	Decommissioning	Closure	
	X	X			

ASPECT	IMPACTS				CUMULATIVE IMPACTS
<b>11. NOISE POLLUTION</b>					



February 1, 2018

Nature of the impact	Noise will be generated during the drilling operation. The prospecting itself is located just outside Ottosdal in rural landscape. The impact would be of more importance regarding the direct worker environment that should adhere to the requirements in terms of the Mine Health and Safety Act.			
Extent	Local			
Duration	short			
Probability	Definite			
Significance	Very low			
Phase responsible for the impact	Construction	Operational	Decommissioning	Closure
	X	X	X	X

ASPECT	IMPACTS	CUMULATIVE IMPACTS
<b>12. ARCHAEOLOGICAL AND CULTURAL SITES</b>		
Nature of the impact	The terrain is archaeologically vulnerable as there is a terrain that will be demarcated. No disturbance within 10m was proposed by the specialist. It is unlikely that the proposed development will result in any significant archaeological impact at the site	
Extent	Site	Activity causing the impact
Duration	Short	No impact
Probability	Very low	
Significance	Very low	
Phase responsible for the impact	Construction	Operational
		Decommissioning
		Closure

ASPECT	IMPACTS	CUMULATIVE IMPACTS
<b>13. SENSITIVE</b>		
Nature of the impact	No sensitive landscapes identified.	
Extent	Not applicable	Activity causing the impact
Duration	Not applicable	
Probability	Not applicable	
Significance	Not applicable	
Phase responsible for the impact	Phase 1	Phase 2
		Phase 3
		Closure

ASPECT	IMPACTS	CUMULATIVE IMPACTS
<b>14. VISUAL ASPECTS</b>		
Nature of the impact	Prospecting will be visible from the tar road and to the neighbours and landowners staying on the specific farms where the drilling will take place.	
Extent	Site	Activity causing the impact
Duration	Short	Prospecting operation.
Probability	Low	
Significance	Low	
Phase responsible for the impact	Construction	Operational
	X	X
		Decommissioning
		Closure

ASPECT	IMPACTS	CUMULATIVE IMPACTS
<b>15. SOCIO ECONOMICS</b>		
Nature of the impact	Increase in Socio – economic activity at local level. The project in itself would ensure that approximately 3 workers would be assured of a job for some time. Job creation plays a major role in increasing the economic wellbeing of employees and their dependants in the Ottosdal district.	The increase in socio-economic activity will add to the current growth and development in Ottosdal already created by industry and prospecting.
Extent	Local	Activity causing the impact
Duration	Short	Additional employment opportunities created.
Probability	Low	
Significance	Low	
Phase responsible for the impact	Construction	Operational
	X	X
		Decommissioning
		Closure

ASPECT	IMPACTS	CUMULATIVE IMPACTS
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February 1, 2018

<b>15. SOCIO ECONOMICS</b>		
Nature of the impact	The main impact on the landowners is very low visual impact and the small area of 0.15 ha that will not be available for agricultural activities at any given time for 2 years.	The economic benefits in terms of investment and the delivery of services in the North West province will get an additional but minor benefit from the project.
Extent	Regional	Activity causing the impact
Duration	Short	Prospecting for Pyrophyllite
Probability	Very low	
Significance	Low	
Phase responsible for the impact	Construction      Operational      Decommissioning      Closure	

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

<b>Environmental Component</b>	<b>Geology</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
<ul style="list-style-type: none"> <li>No mitigation exists except to backfill the drilling holes with the drilling material.</li> <li>Planned, systematic and thorough prospecting of the mineral resource should take place.</li> <li>Optimal utilization of the mineral resource should take place within the boundaries of the prospecting terrain.</li> </ul>	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
Optimal exploration of the mineral resource in order to ensure to facilitate better rehabilitation planning. The overburden and topsoil (where available) at the drilling site must be replaced in a responsible and planned manner in order to achieve some conformity with the surrounding undisturbed area.	

<b>Environmental Component</b>	<b>Topography</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
<ul style="list-style-type: none"> <li>All boreholes should be back-filled with drilling material and covered with a shallow layer of topsoil (if available).</li> <li>All prospecting activities should be restricted to the demarcated area.</li> </ul> <p>Rehabilitation of the new topographical landscape in such a way that it would blend in with the surrounding landscape and allow normal surface drainage to continue. As soon as a section of the prospecting site would not be explored anymore it should be rehabilitated (planned and phased manner).</p>	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
Drilling is not foreseen to have any long-term impact on the topography if all core is removed or backfilled.	

<b>Environmental Component</b>	<b>Soil (topsoil &amp; access roads)</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
<p><b>Handling of topsoil as a natural resource:</b> Any future expansion of the boreholes or construction of infrastructure should be preceded by the removal of <u>all available topsoil</u>. The surface of any new areas to be disturbed must be kept to a minimum. <u>All available topsoil/overburden material should be removed and stockpiled for rehabilitation purposes.</u></p> <p><b>Access roads, etc:</b> The clearing of soil surface areas would be restricted to what is really necessary for the drilling rig. Wherever possible all topsoil should be removed and stockpiled for rehabilitation purposes.</p>	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
The topsoil removed in the site preparation process should be replaced during the rehabilitation exercise.	

<b>Environmental Component</b>	<b>Soil (soil compaction)</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
<p><b>Soil compaction:</b> The prospecting operation should only be restricted to what is really required (demarcated area of exploitation) within the fenced-off area. <b>Access roads</b> towards the sites would be restricted only to the roads (existing farm roads &amp; tracks in veld in consultation with the surface owner). No land would be disturbed unnecessarily. Prospecting &amp; rehabilitation should be done in a well-planned manner (according to a PWP) and in the process ensuring that activities are only restricted to</p>	

February 1, 2018

<p>surface areas really required.                      Compaction of soil surface areas would be alleviated once rehabilitation of certain area starts. Certain roads would probably remain for access (in consultation with the surface owner). Those that would not be required would be ripped and rehabilitated.</p>
<p><b>EMP Performance Assessment &amp; Monitoring Reporting</b></p>
<p>To be included in EMP/EIA.</p>
<p><b>Closure Objective</b></p>
<p>Alleviation of compaction of soils would be done during rehabilitation of the prospecting terrain, including roads.</p>

<b>Environmental Component</b>	<b>Soil (Soil erosion)</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
<p><b>Soil Erosion:</b>                      To take preventive steps against land disturbance like erosion. Implement and maintain cut-off trenches/berms to prevent erosion where necessary.  <b>Re-vegetation of exposed soil surfaces</b> (disturb surfaces, etc) should happen as soon as a particular activity has ceased in order to act as a sufficient erosion prevention measure.</p>	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
No soil erosion must be visible and no potential for soil erosion must be present at closure.	

<b>Environmental Component</b>	<b>Soil (Soil contamination)</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
<p><b>Potential for soil contamination:</b>                      Vehicles to be inspected to ensure no oil and hydraulic fluid leaks occur.                      All oil spills on soil to be removed and bio-remediate immediately (certain commercial products are available such as Terrasorb or it could be rehabilitated by means of the application of fertilizer and turn with a spade from time to time in order to enhance the natural occurring soil microbial activity).                      No servicing of vehicles will occur on the prospecting area only emergency repairs. Training w.r.t pollution hazards and their impact on the environment must be given as part of induction training.                      An incidence register for this purpose must be kept.                      Drip trays and plastic liners must be available and used where emergency repairs is done.</p>	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
No soil contamination must be visible or known before closure can be given.	

<b>Environmental Component</b>	<b>Soil (Soil structure)</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
<p><b>Change in Soil structure:</b>                      Ensure that all available (if any) topsoil is carefully removed in different areas.                      The soil must also be compacted as backfilling is done.                      No unnecessary driving outside the active prospecting area is allowed due to soil compaction that may occur.                      Use organic material e.g. manure to restore the soil structure during rehabilitation.</p>	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
No compaction of any roads or any other area must be present during closure. If the soil structure is disturbed mitigation measures e.g. the use of organic material, lime and fertilizers must be implemented to restore the soil structure.	

<b>Environmental Component</b>	<b>Soil (Soil fertility)</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
<p><b>Soil fertility:</b>                      Little can be done to preserve the moisture status of the soil once it is exposed. The soil must be used for rehabilitation as quickly as possible.                      The soil on the rehabilitated area might be analysed to determine the deficiencies and fertilizer and lime must be ploughed into the soil to restore its fertility, if</p>	

February 1, 2018

necessary. Ensure that stockpiled soil is kept clean and where possible ensure that the topsoil is treated with organic material and fertilized. Do not use stockpiled soil for any other purpose but for rehabilitation. Do not use topsoil to construct roads. Ensure the rehabilitation plan makes provision for fertiliser. Make sure rehabilitated topsoil is analyzed in a laboratory. The type of fertilizer would depend on a soil analyses and fertilizer recommendation.
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>
To be included in EMP/EIA.
<b>Closure Objective</b>
The soil must be fertile enough to sustain vegetation.

<b>Environmental Component</b>	<b>Land Capability</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
The disturbance of land must be restricted (kept to a minimum) to the planned fenced-off, active prospecting site only. Remove topsoil where it is available. Take care that roads needed are restricted to one entry to the area for prospecting purposes. If new land is used for roads to enter the area it must be done in consultation with the surface owner. All rehabilitation will be done according to the final rehabilitation plans after approval by the Department of Mineral Resources (DMR). Topsoil will be placed in areas where it was removed and the areas will be re-vegetated accordingly. Ensure that the rehabilitation plan is implemented.	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
Rehabilitated to the state that it is suitable for the predetermined and agreed land capability.	

<b>Environmental Component</b>	<b>Land Use</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
The disturbance of land must be restricted (kept to a minimum) to the planned active, fenced-off prospecting site only. Remove topsoil where it is available. Take care that roads are the only areas used to enter the area for prospecting purposes. If new land is used for roads to enter the area it must be done in consultation with surface owner. All rehabilitation will be done according to the final rehabilitation plans after approval by the Department of Mineral Resources (DMR). Topsoil will be placed in areas where it was removed and the areas will be re-vegetated accordingly. Ensure that the rehabilitation plan is implemented.	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
The drilling of boreholes will have minimal disturbance. The replacement of drilling material and topsoil would ensure that the land is able to support some grazing and or cultivation.	

<b>Environmental Component</b>	<b>Vegetation</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
No mitigation exists except to replace the vegetation by reseedling of grasses and natural growth. Prospecting should be done in a well-planned manner (according to a PWP) and in the process ensuring that activities are only restricted to surface areas really required.	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
During rehabilitation indigenous vegetation cover comprising of local plant species should be established in order to ensure a well-adapted sustainable plant cover that would be able to prevent erosion of the replaced topsoil on the disturbed prospecting site exposed surfaces).	

<b>Environmental Component</b>	<b>Vegetation</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
Habitat change, loss of species, spread of alien and invasive species: No mitigation exists except to replace the vegetation by reseedling of grasses. Prospecting should be done in a well-planned manner (according to a PWP) and in the process ensuring that activities are only restricted to surface areas really	

February 1, 2018

required. <b>Develop and implement an invasive and alien control programme to control the spread of weeds and other invasive species.</b> Eradicate exotic weeds and invader species if it invades the terrain. All illegal invader plants and weeds shall be eradicated as required in terms of Regulation 15 & 16 of the Act on Conservation of Agricultural Resources, 1983 (Act no. 43 of 1983) which list the plants. An invasive and alien control programme must be implemented by the mine.
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>
To be included in EMP/EIA.
<b>Closure Objective</b>
No invasive and alien species must be present after closure. A post-closure control program must also be implemented.

<b>Environmental Component</b>	<b>Vegetation</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
Ensure that all roads on the prospecting site (utilized by prospecting vehicles) are daily sprayed with water to control dust. Site inspections to ensure the spraying are done.	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
No excessive dust must be present during the normal growth season after closure.	

<b>Environmental Component</b>	<b>Wildlife (habitat)</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
Wildlife or wildlife habitat destruction /change / disturbance : To take care that no new or unnecessary destruction of habitats, other than the demarcated prospecting site should take place. <b>Restoration of habitat:</b> Ensure the rehabilitation plan is implemented.	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
The animal life habitat must be restored after decommissioning. Success will be measured against the extent to which the animals return to the area.	

<b>Environmental Component</b>	<b>Wildlife (Injury and death)</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
<b>Injury and death to wildlife:</b> Re-establish grass cover as soon as possible during and after prospecting. Ensure that the rehabilitation plan is compiled and executed. Keep incidence register on killings and disturbances.	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
The animal life habitat must be restored after decommissioning. Success will be measured against the extent to which the animals return to the area.	

<b>Environmental Component</b>	<b>Wildlife</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
Make game catching, traps, snares, poaching and any other unnecessary disturbance of animals a disciplinary offence. All staff must undergo basic environmental awareness lecture during induction training. Machine operators and drivers to undergo appropriate level of environmental impact training to ensure they understand their impact on the environment. Ensure all staff working on the opencast section undergo basic lecture during induction phase. Introduce the actions as listed above into disciplinary code as offence.	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	



February 1, 2018

The post-closure phase must be suitable for further restoration of the newly man-made animal habitat. The area must be stable and acceptable for the return of animal- and plant life.

Environmental Component	Surface Water (quality)
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
<p><b>Change in surface water quality:</b>                      Storm water control measures must be implemented to divert clean water away from the active prospecting site and keep contaminated water contained. Water control structures must be well designed and constructed to ensure a minimum down wash of topsoil. Vegetation disturbance must be as little as possible. The PWP must be strictly adhered to. Re-vegetation to be done as quickly as possible. Final re-vegetation to be done as per rehabilitation plan.</p>	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
The post closure water run-off may in no circumstance impact negatively on the water quality.	

Environmental Component	Surface Water (quantity)
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
<p><b>Change in surface water quantity:</b> Once the area is rehabilitated the surface run-off will be restored and normal clean water run-off will end-up in the drainage system. Once the area is rehabilitated the normal surface run-off drainage will be restored according to rehabilitation plan. The disturbed surface area must be rehabilitated to ensure some normal drainage. Minimal run-off should end-up in trenches. Final rehabilitation will be done according to the final rehabilitation plans after approval by the Department of Mineral Resources.</p>	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
Ultimately rehabilitation of the disturbed prospecting site and the construction of run-off control structures in a planned and phased manner would ensure normal drainage and stability of rehabilitated site.	

Environmental Component	Ground Water (quality)
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
<p><b>Reduction of groundwater quality:</b> Storm water control measures must be implemented to divert clean water away from the site and keep (silt) contaminated water contained. Vehicles to be inspected to ensure no oil and hydraulic fluid leaks occur. All oil spills on soil to be removed and bio-remediate immediately. No servicing of vehicles must occur except at the workshops. Training w.r.t pollution hazards and their impact on the environment must be given as part of induction training. Storage of fuel and oil should be done according to best practices, within a bunded area and in containers of which the integrity is sound. The prospecting processes will not introduce any harmful or toxic substances and the most likely sources of pollution to the groundwater system would be associated with the infrastructure and / or workshop area. The most likely contaminants are hydrocarbons (from vehicle accidents and emergency spilages). An incidence register for this purpose must be kept. Drip trays and plastic liners must be available and used where emergency repairs is done. All waste must be stored according to best practices and disposed at an authorized waste disposal facility.</p>	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
Post water quality need to indicate a positive trend/improvement.	

Environmental Component	Ground Water (quantity)
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
<p><b>Reduction of groundwater quantity, lowering of groundwater level:</b> No water to be used from boreholes. Water volumes should be recorded continuously to ensure compliance with the water use authorization for abstraction.</p>	

February 1, 2018

<b>EMP Performance Assessment &amp; Monitoring Reporting</b>
To be included in EMP/EIA.
<b>Closure Objective</b>
Post water quality need to indicate a positive trend/improvement.

<b>Environmental Component</b>	<b>Air Quality</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
<p><b>Dust:</b> The prospecting method will serve as mitigation measure because prospecting will limit dust to the active prospecting area (area where the excavator and the trucks are operating). Daily spraying of roads with water. Inspection should be done on a daily basis.</p>	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
Dust count must be the same as before prospecting. Rehabilitation of the bulk sampling site would ensure that no dust is generated from exposed surfaces.	

<b>Environmental Component</b>	<b>Noise</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
<p>Ensure the required silencers are placed on all engines and compressors. No mitigation to reverse hooters is allowed due to safety standards. Inspection of vehicles and machinery to ensure silencers are fitted. Ensure that a complaints register is created, managed and maintained. Vehicles and earthmoving equipment should be equipped with the necessary silencers and regularly maintained in a good working condition.</p>	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
No noise attributed to prospecting will be generated from the site after closure anymore. During decommissioning and closure phase some earth moving equipment and trucks would be utilized for rehabilitation.	

<b>Environmental Component</b>	<b>Archaeological and Cultural Sites</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
<p>There are graves on some of the farms. No drilling will take within 100m horizontal distance of the graves. However, the potential occurrence of unmarked graves or subsurface finds not recorded during this survey can never be excluded, so it is advised that SAHRA and a qualified archaeologist are informed immediately if archaeological objects are uncovered.</p>	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
No site of archaeological importance should be disturbed or damaged until the necessary permit from SAHRA has been issued.	

<b>Environmental Component</b>	<b>Sensitive Landscapes</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
None	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	

<b>Environmental Component</b>	<b>Visual Aspects</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
<p>Visual impact would be addressed by means of; * re-vegetation of disturbed areas with grasses; * removal of any temporary, domestic waste, etc. that would otherwise contribute to a negative visual impact.</p>	



February 1, 2018

Concurrent rehabilitation of the drilling holes and sites should be done simultaneously as prospecting activities progress.
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>
To be included in EMP/EIA.
<b>Closure Objective</b>
No residual visual impacts will remain after closure. The terrain should blend in with the surrounding landscape.

<b>Environmental Component</b>	<b>Socio-Economics</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
There will be a very small increase in Socio – economic activity at local level, because of the size of this prospecting activity.	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
The economic development must deliver a multiplier effect that will contribute to the local economy long after closure.	

<b>Environmental Component</b>	<b>Interested and Affected Parties</b>
<b>Environmental Management/Mitigation Measures/Action Plans/Commitments</b>	
Access control should always be a priority. Active prospecting site should be fenced off and also any deep water holes. If any problem should arise, meetings will be held with the landowners and affected parties to consult them on certain matters like permission to prospect and pollution. No prospecting should be conducted under or near Eskom power line (10 m distance should be kept) ( <i>Permission of Inspector of Mines should be obtained.</i> )	
<b>EMP Performance Assessment &amp; Monitoring Reporting</b>	
To be included in EMP/EIA.	
<b>Closure Objective</b>	
Not to be an economic, social or environmental liability to the local community or the state now or in the future. The company will ensure that the interest of all interested and affected parties will be considered.	

**ix) Motivation where no alternative sites were considered.**

The specific application area is where the applicant believes are good prospect for the exploration of the mineral and no alternative site. No site alternative as the exact drilling sites will be determined by the end of phase 1 according to the prospecting works programme. The application area is for all the farm portions of specific farms.

**x) Statement motivating the alternative development location within the overall site. (Provide a statement motivating the final site layout that is proposed)**

No site alternative as the exact drilling sites will be determined by the end of phase 1 according to the prospecting works programme. The application area is for the specific farm portions.

**i) Full description of the process undertaken to identify, assess and rank the impacts and risks the activity will impose on the preferred site (In respect of the final site layout plan) through the life of the activity. (Including (i)**

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

February 1, 2018

measures.)  
The area was visited by the EAP and the entire area was visited in order to identify areas that area sensitive and what impacts will occur where.

**j) Assessment of each identified potentially significant impact and risk**

**Assessment of each identified potentially significant impact and risk**

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

NAME OF ACTIVITY	POTENTIAL IMPACT (Including the potential impacts for cumulative impacts) (e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc...etc...)	ASPECTS AFFECTED	PHASE (In which impact is anticipated (e.g. Construction, commissioning, operational Decommissioning, closure, post-closure))	SIGNIFICANCE if not mitigated	MITIGATION TYPE (modify, remedy, control, or stop) through (e.g. noise control measures, storm-water control, dust rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc) E.g. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation.	SIGNIFICANCE if mitigated
E.g. For prospecting site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route etc...etc...etc  E.g. For Prospecting, excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, Ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines power lines, conveyors, etc...etc...etc.)						
Demarcation of prospecting focuses area.	Soil compaction, soil erosion, soil contamination, surface disturbance, loss of land use (grazing), clearance of vegetation, dust,	Soil, Land Capability, Land-use potential, Wildlife, Visual impact	Construction & Operational	Low	Mitigation and remedial measures that include restricting prospecting surface area, stockpiling of topsoil, storm water control measures, pollution prevention	
Provision of waste handling/disposal facilities (domestic waste bins).	Soil compaction, soil erosion, soil contamination, surface disturbance, reduction of ground water, change in surface water quality, increased silt load dust, groundwater contamination.	Soil, Surface water, Ground water.	Construction & Operational	Low	Mitigation and remedial measures that include restricting prospecting surface area, stockpiling of topsoil, storm water control measures, pollution prevention (spill kits, drip trays etc.), dust control.	

The supporting impact assessment conducted by the EAP must be attached as an appendix, done under point no. **Appendix vii**.

**k) Summary of specialist reports.**

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

LIST OF STUDIES UNDERTAKEN	RECOMMENDATIONS OF SPECIALIST REPORTS	SPECIALIST RECOMMENDATIONS THAT HAVE BEEN INCLUDED IN THE EIA REPORT (Mark with an X here applicable)	REFERENCE TO APPLICABLE SECTION OF REPORT WHERE SPECIALIST RECOMMENDATIONS HAVE BEEN INCLUDED.
Heritage Assessment	No disturbance within 10m of the fenced off site.	x	

February 1, 2018

**l) Environmental impact statement**

**(i) Summary of the key findings of the environmental impact assessment;**

**(ii) Final Site Map**

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

There will be no infrastructure only the moveable drilling rig that will be moved around to the different sites.

**(iii) Summary of the positive and negative impacts and risks of the proposed activity and identified alternatives;**

**m) Proposed impact management objectives and the impact management outcomes for inclusion in the EMPr;**

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

The rehabilitation of the drilling sites by means of backfilling the borehole and restore vegetation to pre-prospecting capability.

**n) Aspects for inclusion as conditions of Authorisation.**

Any aspects which must be made conditions of the Environmental Authorisation

None

**o) Description of any assumptions, uncertainties and gaps in knowledge.**

(Which relate to the assessment and mitigation measures proposed)

None

**p) Reasoned opinion as to whether the proposed activity should or should not be authorised**

**i) Reasons why the activity should be authorized or not.**

This activity of only 15 boreholes will have only low and very low impacts and no significant impacts were identified. These prospecting activities will have no significant impacts on them or their surrounding environment.

**ii) Conditions that must be included in the authorisation**

None

**q) Period for which the Environmental Authorisation is required.**

60 months.

February 1, 2018

**r) 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 will be part of the EMPR.

**s) Financial Provision**

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

R22 613 for rehabilitation. See quantum attached as **Appendix 3**.

**i) Explain how the aforesaid amount was derived.**

The amount was determined through the quantum tables provided by DMR.

**ii) Confirm that this amount can be provided for from operating expenditure.**

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

Yes it is hereby confirmed that the amount will be provided from operating expenditure.

**t) Specific Information required by the competent Authority**

**i) 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:-**

**(1) Impact on the socio-economic conditions of any directly affected person.**

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

As only drilling will take place with no bulk sampling there will be no impact on socio economic conditions. No other person will be directly affected by this activity.

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

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

As only drilling will take place and **no excavation** activity that can damage any argeological structures. This activity will have no impact on argeological structures. If at any stage any structure came upon that might be of argeological value a specialist will be contracted.

February 1, 2018

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

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

NONE



February 1, 2018

## PART B

### ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

#### 1) Draft environmental management programme.

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

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

c) **Composite Map**

(Provide a map (Attached as an Appendix) at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that any areas that should be avoided, including buffers)  
See Appendix 1.

d) **Description of Impact management objectives including management statements**

i) **Determination of closure objectives.** (ensure that the closure objectives are informed by the type of environment described)

<b>ENVIRONMENTAL COMPONENT</b>
<b>1.1 GEOLOGY</b>
<b>ENVIRONMENTAL MANAGEMENT/MITIGATION MEASURES/ACTION PLANS/COMMITMENTS</b>
No mitigation exists except to backfill the boreholes with the material taken out. Planned, systematic and thorough prospecting of the mineral resource should take place.
<b>CLOSURE OBJECTIVE</b>
Optimal exploitation of the mineral resource in order to ensure to facilitate better rehabilitation planning. The overburden and topsoil (where available) must be replaced in a responsible and planned manner in order to achieve some conformity with the surrounding undisturbed area.

<b>ENVIRONMENTAL COMPONENT</b>
<b>1.2 SOIL</b>
<b>ENVIRONMENTAL MANAGEMENT/MITIGATION MEASURES/ACTION PLANS/COMMITMENTS</b>
<b>Handling of topsoil as a natural resource:</b> The surface of any new areas to be disturbed must be kept to a minimum.
<b>Soil compaction:</b> Only existing roads will be used and only tracks in the veldt.
<b>Potential for soil contamination:</b> Vehicles to be inspected to ensure no oil and hydraulic fluid leaks occur. All oil spills on soil to be removed and bio-remediate immediately (certain commercial products are available such as Terrasorb or it could be rehabilitated by means of the application of fertilizer and turn with a spade from time to time in order to enhance the natural occurring soil microbial activity). No servicing of vehicles on site. Training w.r.t pollution hazards and their impact on the environment must be given as part of induction training. An incidence register for this purpose must be kept. Drip trays and plastic liners must be available and used where emergency repairs is done.
<b>CLOSURE OBJECTIVE</b>
No compaction of any roads or any other area must be present during closure. If the soil structure is disturbed mitigation measures e.g. the use of organic material, lime and fertilisers must be implemented to restore the soil structure. The soil must be fertile enough to sustain vegetation.

February 1, 2018

<b>ENVIRONMENTAL COMPONENT</b>
<b>1.3 LAND CAPABILITY</b>
<b>ENVIRONMENTAL MANAGEMENT/MITIGATION MEASURES/ACTION PLANS/COMMITMENTS</b>
The disturbance of grazing land must be restricted (kept to a minimum) to the active prospecting site only. Remove topsoil where it is available. Take care that roads needed are restricted to 1 entry to the area for prospecting purposes. If new land is used for roads to enter the area it must be done in consultation with the surface owner. All rehabilitation will be done according to the final rehabilitation plans after approval by the Department of Mineral Resources (DMR). Topsoil will be placed in areas where it was removed and the areas will be re-vegetated accordingly. Ensure that the rehabilitation plan is implemented.
<b>CLOSURE OBJECTIVE</b>
Rehabilitated to the state that it is suitable for the predetermined and agreed land capability. (Grazing and partly cultivation).

<b>ENVIRONMENTAL COMPONENT</b>
<b>1.4 LAND USE</b>
<b>ENVIRONMENTAL MANAGEMENT/MITIGATION MEASURES/ACTION PLANS/COMMITMENTS</b>
The disturbance of grazing and cultivated land must be restricted (kept to a minimum) to the planned active, fenced-off prospecting site only. Remove topsoil where it is available. Take care that roads are the only areas used to enter the area for prospecting purposes. If new land is used for roads to enter the area it must be done in consultation with surface owner. All rehabilitation will be done according to the final rehabilitation plans after approval by the Department of Mineral Resources (DMR). Topsoil will be placed in areas where it was removed and the areas will be re-vegetated accordingly. Ensure that the rehabilitation plan is implemented.
<b>CLOSURE OBJECTIVE</b>
The boreholes will be properly backfilled and rehabilitated in very short period.

<b>ENVIRONMENTAL COMPONENT</b>
<b>1.5 VEGETATION</b>
<b>ENVIRONMENTAL MANAGEMENT/MITIGATION MEASURES/ACTION PLANS/COMMITMENTS</b>
No mitigation exists except to replace the vegetation by reseeding of grasses. The drilling should be done in a proper manner ensuring that activities are only restricted to surface areas really required. <b>Habitat change, loss of species, spread of alien and invasive species:</b> No mitigation exists except to replace the vegetation by reseeding. <b>Develop and implement an invasive and alien control programme to control the spread of weeds and other invasive species.</b> Eradicate exotic weeds and invader species if it invades the terrain. All illegal invader plants and weeds shall be eradicated as required in terms of Regulation 15 & 16 of the Act on Conservation of Agricultural Resources, 1983 (Act no. 43 of 1983) which list the plants. An invasive and alien control programme must be drafted and implemented by the prospector
<b>CLOSURE OBJECTIVE</b>
During rehabilitation indigenous vegetation cover comprising of local plant species should be established in order to ensure a well-adapted sustainable plant cover that would be able to prevent erosion on the disturbed areas.

<b>ENVIRONMENTAL COMPONENT</b>
<b>1.6 WILD LIFE</b>
<b>ENVIRONMENTAL MANAGEMENT/MITIGATION MEASURES/ACTION PLANS/COMMITMENTS</b>
Wildlife or wildlife habitat destruction /change / disturbance To take care that no new or unnecessary destruction of habitats, other than the demarcated prospecting site should take place. <b>Injury and death to wildlife:</b> Re-establish trees and grass cover as soon as possible during and after prospecting Ensure that the rehabilitation plan is compiled and executed. Keep incidence register on killings and disturbances. <b>Restoration of habitat:</b> Ensure the rehabilitation plan is implemented. Make game catching, traps, snares, poaching and any other unnecessary disturbance of animals a disciplinary offence. Keep an environmental incidence register to log all kills of birds and mammals. All staff must undergo basic environmental awareness lecture during induction training. Machine operators and drivers to undergo appropriate level of environmental impact training to ensure they understand their impact on the environment. Introduce the actions as listed above into disciplinary code as offence.
<b>CLOSURE OBJECTIVE</b>
The animal life habitat must be restored after decommissioning. Success will be measured against the extent to which the animals return to the area. The post-closure phase must be suitable for further restoration of the newly man-made animal habitat. The area must be stable and acceptable for the return of animal- and plant life.

February 1, 2018

<b>ENVIRONMENTAL COMPONENT</b>
<b>1.7 SURFACE WATER</b>
<b>ENVIRONMENTAL MANAGEMENT/MITIGATION MEASURES/ACTION PLANS/COMMITMENTS</b>
No impact.
<b>CLOSURE OBJECTIVE</b>
No impact.

<b>ENVIRONMENTAL COMPONENT</b>
<b>1.8 GROUND WATER</b>
<b>ENVIRONMENTAL MANAGEMENT/MITIGATION MEASURES/ACTION PLANS/COMMITMENTS</b>
No impact on quantity because no water will be used. Possible low impact on quality with petrochemicals. Proper handling of fuel, oil and other waste products to prevent any pollution. No harmful element in underlying mineral that can cause and be the result of mine acid drainage.

<b>ENVIRONMENTAL COMPONENT</b>
<b>1.9 AIR QUALITY</b>
<b>ENVIRONMENTAL MANAGEMENT/MITIGATION MEASURES/ACTION PLANS/COMMITMENTS</b>
Dust: The prospecting method will serve as mitigation measure because dust at the drilling will be limited to the active drilling site.
<b>CLOSURE OBJECTIVE</b>
Rehabilitation of the boreholes would ensure that no dust is generated from exposed surfaces.

<b>ENVIRONMENTAL COMPONENT</b>
<b>1.10 NOISE</b>
<b>ENVIRONMENTAL MANAGEMENT/MITIGATION MEASURES/ACTION PLANS/COMMITMENTS</b>
Ensure the required silencers are placed on all engines . No mitigation to reverse hooters is allowed due to safety standards. Inspection of vehicles and machinery to ensure silencers are fitted. Ensure that a complaints register is created, managed and maintained. Vehicles and earthmoving equipment should be equipped with the necessary silencers and regularly maintained in a good working condition.
<b>CLOSURE OBJECTIVE</b>
No noise attributed to prospecting will be generated from the site after closure anymore. During decommissioning and closure phase some earth moving equipment and trucks would be utilized for rehabilitation.

<b>ENVIRONMENTAL COMPONENT</b>
<b>1.11 VISUAL ASPECTS</b>
<b>ENVIRONMENTAL MANAGEMENT/MITIGATION MEASURES/ACTION PLANS/COMMITMENTS</b>
Visual impact would be addressed by means of; * re-vegetation of disturbed areas with grasses; The visual impact will be insignificant during prospecting operations. Specific rehabilitation options would mitigate the impact.
<b>CLOSURE OBJECTIVE</b>
No residual visual impacts will remain after closure. The terrain should blend in with the surrounding landscape.

<b>ENVIRONMENTAL COMPONENT</b>
<b>1.12 SOCIO-ECONOMICS</b>
<b>ENVIRONMENTAL MANAGEMENT/MITIGATION MEASURES/ACTION PLANS/COMMITMENTS</b>
Increase in Socio – economic activity at local level.
<b>CLOSURE OBJECTIVE</b>
The economic development must deliver a multiplier effect that will contribute to the local economy long after closure

February 1, 2018

<b>ENVIRONMENTAL COMPONENT</b>
<b>1.13 INTERESTED &amp; AFFECTED PARTIES</b>
<b>ENVIRONMENTAL MANAGEMENT/MITIGATION MEASURES/ACTION PLANS/COMMITMENTS</b>
Access control should always be a priority. If any problem should arise, meetings will be held with the landowners and affected parties to consult them on certain matters like permission to mine and pollution. No prospecting should be conducted under or near a Eskom power line or any other structures (100 m distance should be kept) ( <i>Permission of Inspector of Mines should be obtained.</i> )
<b>CLOSURE OBJECTIVE</b>
Not to be an economic, social or environmental liability to the local community or the state now or in the future. The mine will ensure that the interest of all interested and affected parties will be considered.

ii) **Volumes and rate of water use required for the operation.**

No water will be used as only drilling will take place no processing.

iii) **Has a water use licence has been applied for?**

Not applicable.

February 1, 2018

iv) Impacts to be mitigated in their respective phases

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

<p><b>ACTIVITIES</b>                      (E.g. For prospecting drill site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access roads etc., etc., etc.                      E.g. For mining, excavations, blasting, scoopters, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control berms, roads, pipelines, power lines, conveyors, etc., etc., etc.)</p>	<p><b>PHASE</b>                      (at operation in which, activity will take place. Stage: Planning and design, Pre-Construction, Construction, Operational, Rehabilitation, Closure (closure))</p>	<p><b>SIZE AND SCALE of disturbance</b>                      (volumens, tonnages and hectares or</p>	<p><b>MITIGATION MEASURES</b>                      (describe how each of the recommendations in herein will remedy the cause of pollution or degradation and migration of pollutants)</p>	<p><b>COMPLIANCE WITH STANDARDS</b>                      (A description of how each of the recommendations herein will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities)</p>	<p><b>TIME PERIOD FOR IMPLEMENTATION</b>                      Describe the time period when the measures in the environmental management programme be implemented. Measures must be implemented when required. With regard to Rehabilitation specifically this must take place at the earliest opportunity. With regard to Rehabilitation, therefore state either: Upon cessation of the individual, Upon the occasion of mining, bulk sampling prospecting as the case may be.</p>
<p>Soil –Pollution by possible spillages of fuel and or oil</p>	<p>Construction, Operational &amp; Decommissioning &amp; Closure</p>	<p>Extent of Site, 10 x 10m</p>	<p>Vehicles to be inspected to ensure no oil and hydraulic fluid leaks occur.                      All oil spills on soil to be removed and bio-remediate immediately (certain commercial products are available such as Terrasorb or it could be rehabilitated by means of the application of fertilizer and turn with a spade from time to time in order to enhance the natural occurring soil microbial activity).                      No servicing of vehicles must occur except on a concrete floor or over PVC lined area in an area allocated for that. Training w.r.t pollution hazards and their impact on the environment must be given as part of induction training.                      An incidence register for this purpose must be kept. Drip trays must be available and used where emergency repairs is done.                      The soil on the rehabilitated area must be analysed to determine the deficiencies and fertilizer and lime must be ploughed into the soil to restore its fertility, if necessary.                      Ensure that stockpiled soil is kept clean and where possible ensure that the topsoil is treated with</p>	<p>No compaction of any roads or any other area must be present during closure. If the soil structure is disturbed mitigation measures e.g. the use of organic material, lime and fertilizers must be implemented to restore the soil structure.                      The soil must be fertile enough to sustain vegetation.</p>	



February 1, 2018

<p>Vegetation - Vegetation clearance, disturbance and trampling. Destruction of habitats for vegetation. Due to a disturbed ecosystem, bare ground and spreading of exotics can follow.</p> <p>Habitat change, loss of species, spread of alien and invasive species.</p> <p>Dust coverage of plants due to heavy trucks and other vehicles on dirt roads.</p>	<p>Construction &amp; Operational</p>	<p>Extent of Site, 10 x 10m only</p>	<p>No mitigation exists except to replace the vegetation by reseeding of grasses and natural growth. Tracks must be limited as far as possible and existing farm roads or tracks to be used.</p> <p>Ensure that all existing roads on the prospecting site (utilized by prospecting vehicles) are daily sprayed with water to control dust.</p>	<p>During rehabilitation indigenous vegetation cover comprising of local plant species should be established in order to ensure a well-adapted sustainable plant cover that would be able to prevent erosion of the replaced topsoil on the disturbed prospecting site exposed surfaces (tailings dumps, etc.).</p> <p>No invasive and alien species must be present after closure. A post-closure control program must also be implemented.</p> <p>No excessive dust must be present during the normal growth season after closure.</p>	
<p>Wildlife - The flora which normally serves as habitat for animals would be destroyed during site preparation. The increase in activity will temporarily scare other animals.</p> <p>The movement of vehicles may kill certain insects, rodents and possible birds. Most of the remaining animal life will however move away due to noise.</p>	<p>Construction &amp; Operational</p>	<p>Extent of Site</p>	<p>To take care that no new or unnecessary destruction of habitats, other than the demarcated prospecting site should take place.</p> <p>Ensure that the rehabilitation plan is compiled and executed. Keep incidence register on killings and disturbances.</p> <p>Make game catching, traps, snares, poaching and any other unnecessary disturbance of animals a disciplinary offence.</p> <p>All staff must undergo basic environmental awareness lecture during induction training.</p> <p>Machine operators and drivers to undergo appropriate level of environmental impact training to ensure they understand their impact on the environment.</p> <p>Introduce the actions as listed above into disciplinary code as offence.</p>	<p>The animal life habitat must be restored after decommissioning. Success will be measured against the extent to which the animals return to the area.</p> <p>The post-closure phase must be suitable for further restoration of the newly man-made animal habitat. The area must be stable and acceptable for the return of animal- and plant life.</p>	
<p>Air Quality - Dust will be generated during the prospecting operation by the drilling rig and transportation of service vehicles on gravel/dirt/farm roads</p>	<p>Construction, Operational &amp; Decommissioning &amp; Closure</p>	<p>Extent of Site</p>	<p>Dust: The dust will be limited to the active drilling site and no unnecessary vegetation will be disturbed in order to limit the open patches that may create dust from windy days.</p> <p>Regular spraying of roads with water. Inspection should be done on a daily basis.</p> <p>The speed of all vehicles will be limited on the roads in order to prevent more dust.</p>	<p>Dust count must be the same as before prospecting. Rehabilitation of the bulk sampling site would ensure that no dust is generated from exposed surfaces.</p>	

February 1, 2018

<p>Noise - Noise will be generated during the prospecting operation from the drilling rig. The prospecting area itself is located in rural landscape. The impact would be of more importance regarding the direct worker environment that should adhere to the requirements in terms of the Mine Health and Safety Act.</p>	<p>Construction, Operational &amp; Decommissioning &amp; Closure</p>	<p>Extent of Site</p>	<p>Ensure the required silencers are placed on all engines and compressors. No mitigation to reverse hooters is allowed due to safety standards. Inspection of vehicles and machinery to ensure silencers are fitted. Ensure that a complaints register is created, managed and maintained. Vehicles and earthmoving equipment should be equipped with the necessary silencers and regularly maintained in a good working condition.</p>	<p>No noise attributed to prospecting will be generated from the site after closure anymore.</p>
<p>Archeological and Cultural Sites - The terrain is not archaeologically vulnerable. It is unlikely that the proposed development will result in any significant archaeological impact at the site. There were no grave yards identified during the site visit.</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>
<p>Sensitive Landscape – None identified.</p> <p>Visual Aspects - Prospecting will only be visible to the landowners living there. The operation is not visible to from any tourist road.</p>	<p>Construction, Operational &amp; Decommissioning &amp; Closure</p>	<p>Extent of Site</p>	<p>Visual impact would be addressed by means of:  <ul style="list-style-type: none"> <li>re-vegetation of disturbed areas with grasses;</li> <li>removal of any temporary building, scrap, domestic waste, etc. that would otherwise contribute to a negative visual impact.</li> </ul>                     Concurrent rehabilitation should be done simultaneously as prospecting activities progress.</p>	<p>No residual visual impacts will remain after closure. The terrain should blend in with the surrounding landscape.</p>
<p>Socio-Economics - The main impact on the landowners is visual impact and the small area of 0.06 ha that will not be available at any stage for agricultural activities at any given time for 5 year</p>	<p>Construction, Operational &amp; Decommissioning &amp; Closure</p>	<p>Extent of Site</p>	<p>There will be a very small increase in Socio – economic activity at local level, because of the size of this prospecting activity.</p>	<p>The economic development must deliver a multiplier effect that will contribute to the local economy long after closure.</p>
<p>Interested and Affected Parties - Temporary loss of utilization of the prospecting focus areas for agricultural purposes. The long-term benefits far out-weight the current benefits from the current use.</p>	<p>Construction, Operational &amp; Decommissioning &amp; Closure</p>	<p>Extent of Site</p>	<p>Access control should always be a priority. Active prospecting site should be fenced off and also any deep water holes. If any problem should arise, meetings will be held with the landowners and affected parties to consult them on certain matters like permission to prospect and pollution. No prospecting should be conducted under or near Eskom power line (10 m distance should be kept) (Permission of Inspector of Mines should be obtained.)</p>	<p>Not to be an economic, social or environmental liability to the local community or the state now or in the future. The company will ensure that the interest of all interested and affected parties will be considered.</p>

February 1, 2018

**e) Impact Management Outcomes**

(A description of impact management outcomes, identifying the standard of impact management required for the aspects contemplated in paragraph (c);

ACTIVITY (Whether listed or not listed)  (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, abutment stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.)	POTENTIAL IMPACT  (e.g. Dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc...etc...)	ASPECTS AFFECTED	PHASE in which impact is anticipated (e.g. Construction, commissioning, operational, decommissioning, closure, post-closure)	MITIGATION TYPE  (modify, remedy, control, or stop) Through (e.g. Noise control measures, storm water control, dust control, rehabilitation, desludging measures, blasting controls, avoidance, relocation, alternative activity etc. etc) E.g. Modify through alternative method Control through noise control Control through management and monitoring Remedy through rehabilitation.	STANDARD TO BE ACHIEVED  (Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.
1) Drilling of boreholes by drilling rig. On site at a time of 0.05 hectares.	The impact on geology weathered andesite (lava material) is low as only the drilling hole will be very small Drilling site	2.1) Geology	Operational Phase (Drilling)	Rehabilitation: Proper backfilling of each borehole.	See section D (IV) with regard to rehabilitation standards, etc.
1) Vegetation clearance and possible spillages on the drilling site.		1.1) Soil	Operational Phase (Drilling)	Handling of topsoil as a natural resource The surface of any new area to be disturbed must be kept to a minimum. All available topsoil material should be removed and stockpiled for rehabilitation purposes.  Potential for soil contamination: Vehicles need to be inspected to ensure no oil and hydraulic fluid leaks occur. No servicing of vehicles must occur except on a concrete floor in an area allocated for that. Training w.r.t pollution hazards and their impact on the environment must be given as part of induction training. Spill kits should be made available at the workshop An incidence register for this purpose must be kept. Drip trays must be available and used where emergency repairs are done. Mobile diesel tankers should be stored/parked in abundance facility. Spillages from the wash bay area should always be contained within the facility constructed therefore and the oil/water separator should always be in a working order. Oil should be removed by a reputable company such as Oilkol.	The prospecting activities should be restricted to the surface area within the boundaries of the prospecting authorization. See plan No. 1A & 1B.
1) Drilling of the boreholes	<b>Potential of soil contamination:</b> No chemicals are being utilized in the drilling or processing process. The possibility always exists that oil/lubricants/diesel spillages may contaminate the soil,		Operational Phase (Drilling)		No spillages should happen. Containment is the bottom line. Adhere to GN 704 regulation.

JIM FOSTER LANDGOED CC – DRIEKUIL 280 IP – NW30/5/1/1/12/12235 PR

February 1, 2018

<p>1) Vegetation clearance, ON DRILLING SITE (0.05 ha of surface area disturbed at any one stage)</p>	<p>This is a new prospecting operation that will be conducted in the identified focus area and therefore will temporarily lose its land use to support grazing eventually on the total area 0.15 ha.</p> <p>The area where the active drilling will take place will be very small and on very short periods.</p> <p><b>Increased silt load</b></p>	<p><b>1.2) Land Use</b></p>	<p>The disturbance of land (medium agricultural potential) must be restricted (kept to a minimum).</p>	<p>Handle/ conserve topsoil as a scarce natural resource (Dept of Agriculture and Forestry).</p>
<p>1) Active drilling site</p>	<p>Dust will be generated during the drilling of boreholes and on gravel/dirt roads.</p>	<p><b>1.3) Surface Water</b></p>	<p>Change in surface water quality. Storm water control measures must be implemented to divert clean water away from the active DRILLING site and keep contaminated water contained.  Vegetation disturbance must be as little as possible. Vehicles to be inspected to ensure no oil and hydraulic fluid leaks occur. All oil spills on soil to be removed and bio-remediate immediately. No servicing of vehicles must occur except at the workshops. <b>Training w.r.t pollution hazards and their impacts on the environment must be given as part of induction training.</b></p>	<p>Adhere to the GN764 regulation of the Dept of NWS All workers should receive environmental awareness training.  Adhere to the GN704 regulation of the Dept of NWS</p>
<p>Noise will be generated during the drilling operation.  The prospecting itself is located in a rural landscape. The impact would be more of importance regarding the direct worker environment that should adhere to the requirements in the terms of the Mine Health and Safety Act. Impact will be very low and localized.</p>	<p><b>1.4) Air Quality</b></p>	<p>Dust: Will be limited to short periods on the drilling site Regular spraying of roads with water. Inspection should be on a daily basis.  If new roads are constructed, in coordination with surface owner dust pollution must be mitigated by means of spraying the roads with water.</p>	<p>No dust should be emitted from flat compacted surfaces that is actively being traversed by trucks etc.</p>	
	<p><b>1.5) Noise</b></p>	<p>Ensure the required silencers are placed on all engines and compressors. No mitigation to reverse hooters is allowed due to safety standards.  Inspection of vehicles and machinery to ensure silencers are fitted.  Ensure that a complaints register is created, managed and maintained. Vehicles and earth-moving equipment should be equipped with the necessary silencers and regularly maintained in a good working condition.</p>	<p>With regard to silencers the mine should adhere to requirements in terms of the MHS, 1996.  Keep to maintenance schedule of the vehicle.</p>	

February 1, 2018

<p>1) Vegetation clearance/disturbance at the drilling site and tracks through the veld. (0.06 ha of surface area disturbed at any one stage)</p>	<p>Vegetation clearance, disturbance and trampling. Destruction of habitats for vegetation.</p> <p>Habitat change, loss of species, spread of alien and invasive species.</p> <p>Dust coverage of plants</p>	<p><b>1.6) Vegetation</b></p>	<p>No mitigation exists except to replace the vegetation by reseeded grasses.</p> <p>Prospecting restricted only to the drilling site and tracks.</p> <p>Habitat change, loss of species. Spread of alien and invasive species.</p> <p>Develop and implement an invasive and alien control programme to control the spread of weeds and other invasive species. Eradicate Beetle weeds and invader species if it invades the terrain. All illegal invader plants and weeds shall be eradicated as required in terms of Regulation 15 &amp; 16 of the Act on Conservation of Agricultural Resources, 1983 (Act no. 43 of 1083) which list the plants.</p> <p>An invasive and alien control programme must be drafted and implemented by the mine.</p> <p>Ensure that all roads on the mine site (utilized by mine vehicles) are daily sprayed with water to control dust.</p> <p>Site inspections to ensure the spraying are done.</p>	<p>See section D (IV) with regard to rehabilitation standards etc.</p>
<p>1) Drilling site</p>	<p>Wildlife or wildlife habitat destruction/change/disturbance</p> <p>Prospecting related activities will be limited to ±0.15 ha during any phase, but will lead to the temporary emigration of local species from the prospecting area onto the adjacent area.</p>	<p><b>1.7) Wildlife</b></p>	<p>Wildlife or wildlife habitat destruction/change/disturbance</p> <p>To take care that no new or unnecessary destruction of habitats, other than the demarcated prospecting site should take place.</p> <p>Injury and death to wildlife:</p> <p>Re-establish trees and grass cover as soon as possible during and after prospecting</p> <p>Ensure that the rehabilitation plan is compiled and Executed. Keep incidence register on killings and disturbances.</p>	<p>Demarcation, fencing- off of prospecting area.</p>
<p>1) Drilling site</p>	<p>Drilling rig will be visible from the secondary dirt/gravel road.</p>	<p><b>1.8) Visual Impact</b></p>	<p>Visual impact would be addressed by means of re-vegetation of disturbed areas with grasses. Removal of any building, scrap, domestic waste, etc. that would otherwise contribute to a negative visual impact</p> <p>Concurrent rehabilitation of the boreholes should be happening for the next 2 years.</p>	



February 1, 2018

<p>2) Drilling of the boreholes.</p>	<p>Increase in Socio-economic activity at local level                  The project in itself would ensure that approximately 3 workers at the mine would be assured of a job for some time. The protected mine life is until the end of 2022. Job creation plays a major role in increasing the economic well-being of employees and their dependents.</p>	<p>2.10) Socio-economic</p>			
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February 1, 2018

**f) Impact Management Actions**

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

<p><b>ACTIVITY</b> whether listed or not listed.</p> <p>(E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, abutment, sawworkshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc....etc.)</p>	<p><b>POTENTIAL IMPACT</b></p> <p>(e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc....etc.)</p>	<p><b>MITIGATION TYPE</b></p> <p>(modify, remedy, control, or stop) through (e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc etc)</p> <ul style="list-style-type: none"> <li>• Control through alternative method.</li> <li>• Control through noise control</li> <li>• Control through management and monitoring</li> <li>• Remedy through rehabilitation.</li> </ul>	<p><b>TIME PERIOD IMPLEMENTATION</b></p> <p>Describe the time period when the measures in the environmental management programme must be implemented. Measures must be implemented when required.</p> <p>With regard to Rehabilitation specifically this must take place at the earliest opportunity. With regard to Rehabilitation, therefore state either: - Upon cessation of their individual activity or, - Upon the cessation of mining, bulk sampling or alluvial diamond prospecting as the case may be.</p>	<p><b>COMPLIANCE WITH STANDARDS</b></p> <p>(A description of how each of the recommendations in 2.11.6 read with 2.12 and 2.15.2 herein will comply with any prescribed environmental management standards or practices that may have been identified by Competent Authorities)</p>
<p>1) Drilling of boreholes</p>	<p>The impact on geology (weathered andesite lava material) is low as the boreholes will be very small.</p>	<p>Rehabilitation: The boreholes will be backfilled. This will not restore the geology, but will mitigate the impact.</p>	<p>Concurrently, as drilling progressed</p> <p>For the duration of the prospecting.</p>	<p>See section D (IV) with regard to rehabilitation standards, etc.</p>
<p>1) Drilling of boreholes</p>	<p><b>Potential of soil contamination:</b> No chemicals are being utilized in the drilling process. The possibility always exists that oil/fuel/oil/diesel spillages may contaminate the soil.</p>	<p>Potential for soil contamination: Vehicles need to be inspected to ensure no oil and hydraulic fluid leaks occur. No servicing of vehicles must occur except on a concrete floor in an area allocated for that. Training w.r.t pollution hazards and their impact on the environment must be given as part of induction training. Spill kits should be made available at the workshop An incidence register for this purpose must be kept. Drip trays must be available and used where emergency repairs are done. Mobile diesel tankers should be stored/parked in a banded facility. Spillages from the wash bay area should always be contained within the facility constructed therefore and the oil/water separator should always be in a working order. Oil should be removed by a reputable company such as Oilkol.</p>	<p>For the duration of the drilling.</p>	<p>No spillages should happen. Containment is the bottom line. Adhere to GN 704 regulation.</p>

JIM FOSTER LANDGOED CC – DRIEKUIL 280 IP – NW30/5/1/1/2/12235 PR

February 1, 2018

<p>1) Drilling of boreholes</p>	<p>Loss of land capability to support grazing and land use. The area (0,15ha) where the active drilling occurs.  The current land capability is medium agricultural potential.</p>	<p>The disturbance of land must be restricted (kept to a minimum) to the planned drilling site (mine focus area) only. Remove and stockpile topsoil where it is available. Take care that roads needed are restricted to 1 entry/track to the drilling site. If new land is used for roads to enter the area it must be done in consultation with the surface owner.</p>	<p>For the duration of the drilling.</p>	<p>Handler conserve topsoil as a scarce natural resource (Dept of Agriculture and Forestry).</p>
<p>1) Drilling of boreholes</p>	<p><b>Increased silt load</b></p>	<p>Change in surface water quality: Storm water control measures must be implemented to divert clean water away from the active prospecting site and keep contaminated water contained.  Halter control structures must be well designed and constructed to ensure a minimum down wash (erosion) of topsoil from quarry side slope areas.  Vegetation disturbance must be as little as possible.  Vehicles to be inspected to ensure no oil and hydraulic fluid leaks occur. All oil spills on soil to be removed and bio-remediate immediately. No servicing of vehicles must occur except at the workshops. <b>Training w.r.t pollution hazards and their impacts on the environment must be given as part of induction training.</b></p>	<p>For the duration of the drilling.</p>	<p>Adhere to the GN764 regulation of the Dept of NWS All workers should receive environmental awareness training.  Adhere to the GN704 regulation of the Dept of NWS</p>
<p>1) Drilling of boreholes</p>	<p>Dust will be generated during the drilling operation and service vehicles on gravel/dirt roads.</p>	<p>Dust: Limited to the active drilling site for very short periods.  Regular spraying of roads with water. Inspection should be on a daily basis.  If new roads are constructed, in coordination with surface owner dust pollution must be mitigated by means of spraying the roads with water.</p>		<p>No dust should be emitted from flat compacted surfaces that is actively being traversed by trucks etc.</p>

February 1, 2018

<p>1. Drilling of boreholes.</p>	<p>Noise will be generated during the drilling operation. The prospecting area itself is located in a rural landscape. The impact would be more of importance regarding the direct worker environment that should adhere to the requirements in the terms of the Mine Health and Safety Act. Impact will be very low and localized.</p>	<p>Ensure the required silencers are placed on all engines and compressors. No mitigation to reverse hooters is allowed due to safety standards. Inspection of vehicles and machinery to ensure silencers are fitted. Ensure that a complaints register is created, managed and maintained. Vehicles and earth-moving equipment should be equipped with the necessary silencers and regularly maintained in a good working condition.</p>	<p>For the duration of the drilling.</p>	<p>With regard to silencers the mine should adhere to requirements in terms of the MHS, 1986. Keep to maintenance schedule of the vehicle.</p>
<p>1. Drilling of boreholes</p>	<p>Wildlife or wildlife habitat destruction/change/disturbance prospecting related activities will be limited to ± 0.15 ha during any phase, but will lead to the temporary emigration of local species from the drilling area onto the adjacent area,</p>	<p>Wildlife or wildlife habitat destruction/change/disturbance To take care that no new or unnecessary destruction of habitats, other than the demarcated drilling site should take place. Injury and death to wildlife. Re-establish trees and grass cover as soon as possible during and after prospecting. Fence area off to ensure that no person can enter without permission. Ensure that the rehabilitation plan is compiled and executed. Keep incidence register on killings and disturbances.</p>	<p>At the start of the project.  For the duration of the drilling.</p>	<p>Demarcation, fencing- off of prospecting area.</p>
<p>1) Drilling of boreholes</p>	<p>Drilling site will be visible from the secondary dirt/gravel road. The visual impact will be addressed through concurrent re-vegetation of rehabilitated area and decommissioning of all infrastructures after closure.</p>	<p>Visual impact would be addressed by means of re-vegetation of disturbed areas with grasses, etc. that would otherwise contribute to a negative visual impact Concurrent rehabilitation should be happening for the next 2 years.</p>		

February 1, 2018

**i) Financial Provision****(1) Determination of the amount of Financial Provision.****(a) Describe the closure objectives and the extent to which they have been aligned to the baseline environment described under the Regulation.**

The closure objectives of the drilling holes will be to backfill all the boreholes properly concurrently as drilling progress and ensure that the vegetation on the tracks and drilling site have been restored to original state. Only one drilling site will be active at any time.

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

Yes, the disturbance that will take place and the rehabilitation thereof were discussed on the public meeting as well as with the landowner.

**(c) 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.**

All the envisaged drilling sites shown on the Layout plan attached as Appendix 1(b) will be properly rehabilitated as stated in the closure objectives as described in 1 d (i)

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

There will be no excavations of processing areas that can cause after prospecting impacts or residues. It will only be the rehabilitation of the drilling sites.

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

R 22 613.00

**(f) Confirm that the financial provision will be provided as determined.**

The financing for this project will be done from the account Jim Foster Landgoed CC, the applicant himself out of own funds.

The guarantee will be provided in the form of either cash or a Bank Guarantee after confirmation of the amount.



February 1, 2018

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

- g) Monitoring of Impact Management Actions
- h) Monitoring and reporting frequency
- i) Responsible persons
- j) Time period for implementing impact management actions
- k) Mechanism for monitoring compliance

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
Drilling site.	Possible spillages of	Checking for spillages on daily basis	Manager and Applicant	
Drilling site	Back filling of boreholes	Checking backfilling after each borehole	Manager and applicant	Quarterly
Drilling site	Restoring of vegetation on tracks	Rehabilitation of vegetation	Manager and applicant	Quarterly
Drilling site	Chemical toilet	Make sure that it is used and hygienic.	Manager and Applicant	Quarterly.

- l) Indicate the frequency of the submission of the performance assessment/environmental audit report**

Annually.

### m) Environmental Awareness Plan

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

The applicant will contract DERA Environmental Consultants to inform the employees after the EMP was approved.

The following guidelines will be used:

- Communication
- Urge
- Leadership
- Teamwork
- Understanding
- Recognition
- Empowerment (CULTURE).

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

The risks will be dealt with by proper management objectives as described in 1 d (i).

### **3. Specific information required by the Competent Authority**

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

The quantum for rehabilitation liability will be review with the performance assessment on annual basis.

February 1, 2018

## 2) UNDERTAKING

The EAP herewith confirms

- a) the correctness of the information provided in the reports
- b) the inclusion of comments and inputs from stakeholders and I&APs ;
- c) the inclusion of inputs and recommendations from the specialist reports where relevant; and

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 her

Signature of the environmental assessment practitioner:



D E Erasmus

Name of company: **DERA Environmental Consultants (Pty) Ltd.**

Date: 01/02/2018

-END-



**JERRY DEAN MENIN**  
OFFICE MANAGER / AUDITOR  
COMMISSIONER OF OATHS / KOMMISSARIS VAN EDE  
Appointed in terms of Section 5(1) of Act 16 of 1983  
Aangestel in terme van Artikel 5(1) van Wet 16 van 1983  
Centrallaan 32 Central Avenue, Flamwood, Klerksdorp  
Appointed/Aangestel: 23 Oktober 2012  
Reference/Verwysing: 8/1/8/2 Klerksdorp



APPENDIX 1 (a)

LOCALITY MAP







Coordinates

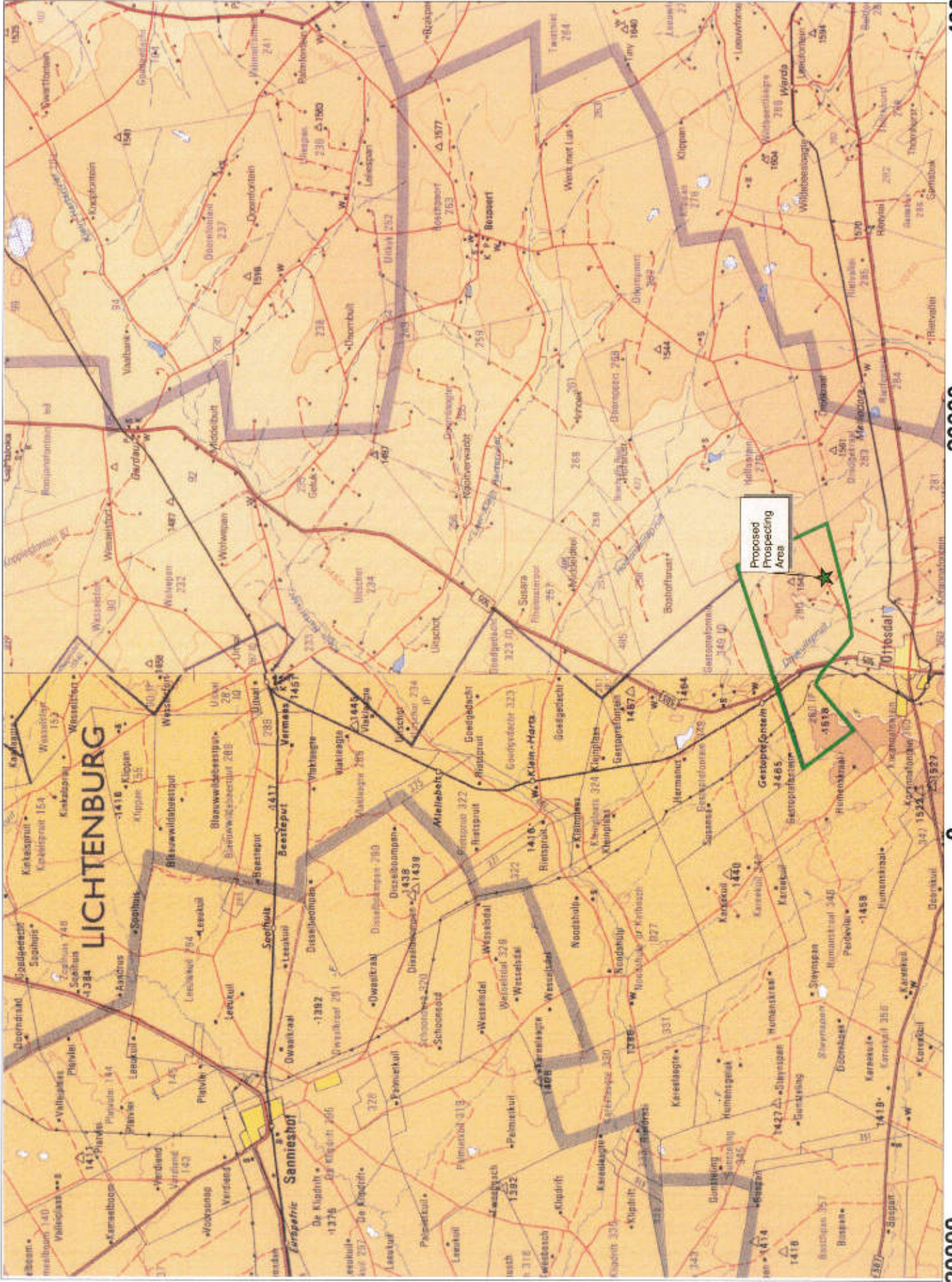
WGS 1984 UTM 34



View 2 1:250000

Legend:

-  Proposed Prospecting Area
-  Tar Roads
-  Canal
-  Secondary roads
-  Houses/Farm yards/Small holdings
-  Mining areas



20000

0

20000

40000 Meters









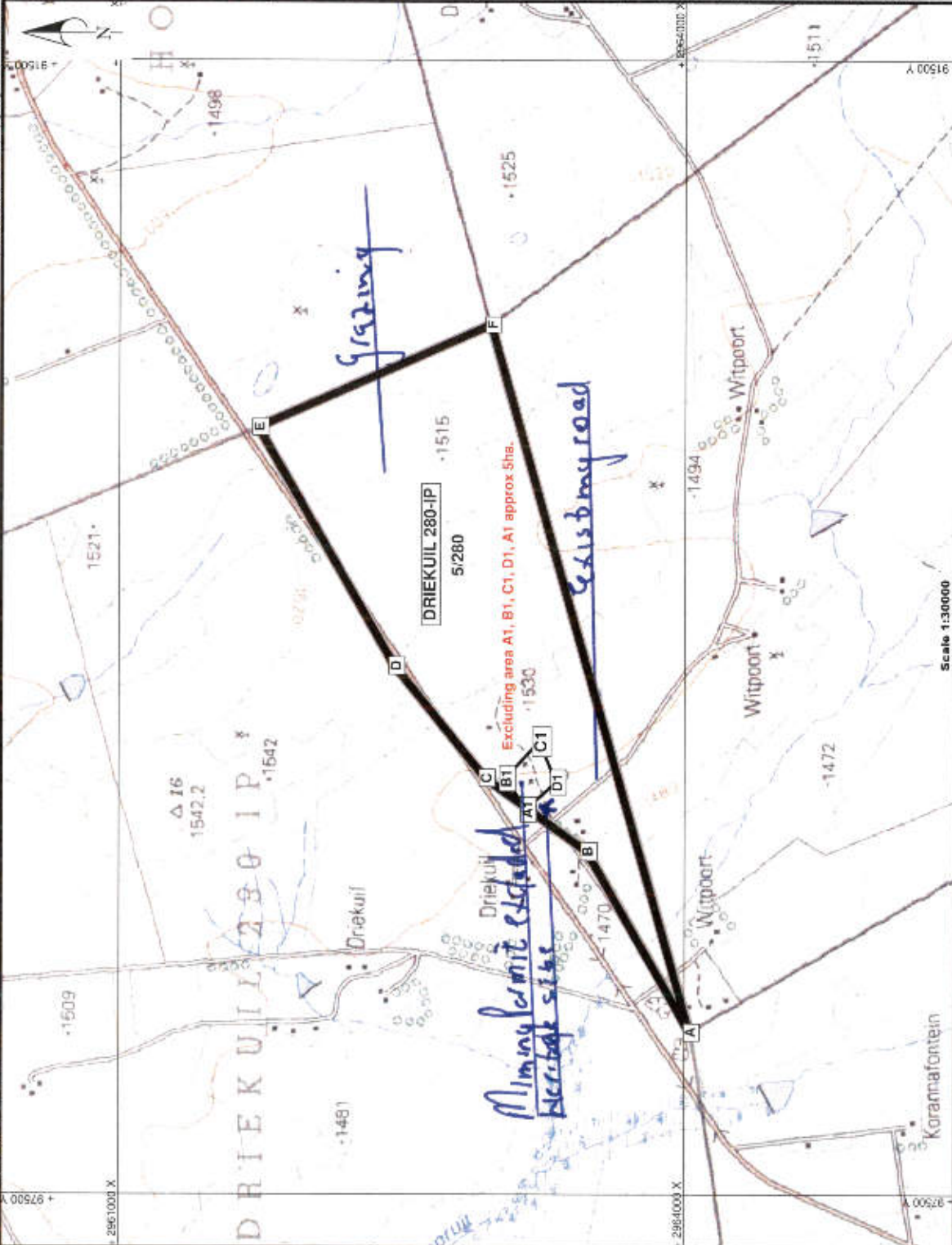




PLAN No. 20171115 1

SurvMap cc Copyright © 15/11/2017

<b>OFFICIAL PURPOSES</b> DIMR REF. No.: LP 30/5/1/12 (.....) PR																																																																												
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<b>CO-ORDINATE LIST</b> WG 27° <table border="1"> <thead> <tr> <th>NAME</th> <th>Y</th> <th>X</th> </tr> </thead> <tbody> <tr><td>A</td><td>90645.30</td><td>2964025.98</td></tr> <tr><td>B</td><td>86680.53</td><td>2953479.18</td></tr> <tr><td>C</td><td>85303.26</td><td>2952995.97</td></tr> <tr><td>D</td><td>84710.43</td><td>2952454.31</td></tr> <tr><td>E</td><td>83447.81</td><td>2951731.62</td></tr> <tr><td>F</td><td>82802.19</td><td>2950865.46</td></tr> <tr><td>A</td><td>90645.30</td><td>2964025.98</td></tr> <tr><td>A1</td><td>95468.59</td><td>2993155.49</td></tr> <tr><td>B1</td><td>95304.33</td><td>2983043.44</td></tr> <tr><td>C1</td><td>95110.98</td><td>2963225.94</td></tr> <tr><td>D1</td><td>95325.14</td><td>2963317.51</td></tr> <tr><td>A1</td><td>85468.69</td><td>2963155.49</td></tr> <tr><td>A</td><td>-86.7738631</td><td>26.0400070</td></tr> <tr><td>B</td><td>-86.7727655</td><td>26.0378854</td></tr> <tr><td>C</td><td>-86.7738800</td><td>26.041748</td></tr> <tr><td>D</td><td>-86.7695863</td><td>26.047746</td></tr> <tr><td>E</td><td>-86.763147</td><td>26.060482</td></tr> <tr><td>F</td><td>-86.774317</td><td>26.0693886</td></tr> <tr><td>A</td><td>-86.783631</td><td>26.068172</td></tr> <tr><td>A1</td><td>-86.7738800</td><td>26.0400070</td></tr> <tr><td>D1</td><td>-86.7749800</td><td>26.041730</td></tr> <tr><td>C1</td><td>-86.776520</td><td>26.040680</td></tr> <tr><td>D1</td><td>-86.777330</td><td>26.041500</td></tr> <tr><td>A1</td><td>-86.775950</td><td>26.0400070</td></tr> </tbody> </table>		NAME	Y	X	A	90645.30	2964025.98	B	86680.53	2953479.18	C	85303.26	2952995.97	D	84710.43	2952454.31	E	83447.81	2951731.62	F	82802.19	2950865.46	A	90645.30	2964025.98	A1	95468.59	2993155.49	B1	95304.33	2983043.44	C1	95110.98	2963225.94	D1	95325.14	2963317.51	A1	85468.69	2963155.49	A	-86.7738631	26.0400070	B	-86.7727655	26.0378854	C	-86.7738800	26.041748	D	-86.7695863	26.047746	E	-86.763147	26.060482	F	-86.774317	26.0693886	A	-86.783631	26.068172	A1	-86.7738800	26.0400070	D1	-86.7749800	26.041730	C1	-86.776520	26.040680	D1	-86.777330	26.041500	A1	-86.775950	26.0400070
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Scale 1:30000

The area lettered ( A, B, C, D, E, F, A ) approximately 268.6925 ha in extent, excluding area lettered ( A1, B1, C1, D1, A1 ) applicable to a prospecting right over PORTION 5 (PORTION OF PORTION 1) of the farm DRIEKUIL 280-IP, situated in the LICHTENBURG DISTRICT, NORTH-WEST PROVINCE, granted in terms of Section 16 of the Mineral and Petroleum Resources Development Act, No. 28 of 2002, to JIM FOSTER LANDGOED CC, ( 2006/103225/23 )

## APPENDIX 2: DETAILS OF THE PUBLIC PARTICIPATION PROCESS

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an "X" where those who must be consulted were in fact consulted.	Date sent and/or Comments Received	Issues raised	EAP's response to the applicant
<b>AFFECTED PARTIES</b>			
<b>Landowner/s</b>	X		
Jim Foster Landgoed CC (Engelina Jonker) P.O. Box 1, Ottosdal, 2610 Tel: 018 571 0036 e-mail: <a href="mailto:susan@fosterprok.co.za">susan@fosterprok.co.za</a> (Landowner)	8 Jan 2018	The applicant is also the landowner	
Lawful occupier/s of the land	X		
Mr. M. Tail P.O. Box 571, Ottosdal, 2610 Cell: 071 698 6463 e-mail: <a href="mailto:jhntail@ruemnw.co.za">jhntail@ruemnw.co.za</a> (Occupier)	8 Jan 2018 14 Feb 2018	No objection Rehabilitation must be done properly	
<b>Landowners or lawful occupiers on adjacent properties</b>			
Mr. J.P. Otto P.O. Box 253, Ottosdal, 2610 Cell: 082 774 3993 Fax: 086 750 9976 e-mail: <a href="mailto:jpotto@lantic.net">jpotto@lantic.net</a> (Neighbours on the farm Dreekraal)	8 Jan 2018 16 Feb 2018	No objection, see consultation letter attached.	
Municipal councillor			
<b>Municipality</b>	X		
Ditsobotla Local Municipality LED officer: Mr. M. Jula (acting) Fax: 018 632 5247 e-mail: <a href="mailto:digoamajel@ditsobotla.co.za">digoamajel@ditsobotla.co.za</a>	8 Jan 2018 24 Jan 2018	Fax : not working E-mail sent – no response received	
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA.			
<b>Eskom</b>			
Communities			
<b>N/A</b>			
<b>Dept. Land Affairs</b>	X		
KeabetsweMothupi Keabetswe.mothupi@dtrlr.gov.za	8 Jan 2018	E-mail sent – no response yet received	
Traditional Leaders			
<b>N/A</b>			
<b>Dept. Rural, Environment and Agricultural Development</b>	X		
OumaSkosana Agricentre Building, Cnr James Moroka & Stadium Road, Mmabatho, 2735 e-mail: <a href="mailto:oskosana@nwpp.gov.za">oskosana@nwpp.gov.za</a>	January 2018	BAR sent with Fastway couriers for comments	No comments received
<b>Dept. Water and Sanitation</b>	X		

Clement Makwela Cnr Dr James Moroka Drive & Sekame Road, Mega City Complex, Unit 99, Mmabatho, 2735		1 February 2018	BAR sent with Fastway couriers for comments	No comments received
<b>Dept. Agriculture, Forestry and Fisheries</b>	X			
Maurice Vukeya Louis le Grange Building, Cnr Peter Mokaba & Wolmarans street, 3 <sup>rd</sup> Floor, Office no 318, Potchefstroom, 2520 Tel: 018 294 3343 e-mail: MauriceV@daff.gov.za		1 February 2018	BAR sent with Fastway couriers for comments	No comments received
<b>Dept. Rural Development and Landform</b>				
Other Competent Authorities	X			
SAHRIS P.O. Box 4637, Cape Town, 8000 Tel: 021 462 4502 Fax: 021 462 4509 E-mail: <a href="mailto:info@sahra.org.za">info@sahra.org.za</a>		February 2018		No comments received
<b>OTHER AFFECTED PARTIES</b>				
<b>INTERESTED PARTIES</b>				
Wonderstone Limited Environmental Officer: Marisa Pienaar Private Bag X03, Northlands, 2116 Tel: (011) 770 6827 Fax (011) 268 6918	X	2 March 2018	E-mail received Registered as Interested Party	

Public Notice - Noordwester 2 Feb 2018

## Office

---

**From:** Office <dera.office@dera.co.za>  
**Sent:** Wednesday, January 24, 2018 3:32 PM  
**To:** 'susan@fosterprok.co.za'  
**Subject:** Konsultasie briewe - Jim Foster Landgoed - Driekuil  
**Attachments:** Scan\_20180124\_150344.pdf

Goeie middag Susan

Aangeheg is die konsultasie briewe vir die aansoek van Jim Foster Landgoed CC op gedeelte 5 van Driekuil - NW12235PR.

Sal jy asseblief die vorms aanstuur om geteken te word deur die grondeienaar en die aangrensende bure.

Ek sal waardeer as ons die getekende vorms voor 8 Februarie 2018 kan terug kry, want ons moet die konsultasie vorms insluit in die Basic Assessment Report.

Groete.

Ns/pp Gerda Els

Daan Erasmus

Dera Environmental Consultants/Dera Omgewingskonsultante P.O. Box 6499, Flamwood 2572 VAT No: 464 020 4881

Tel: 018 468 5355

Fax: 018 468 4015

Cell: 082 895 3516

Fax2mail: 086 578 3085

e-mail: [dera.office@dera.co.za](mailto:dera.office@dera.co.za) or [daane@dera.co.za](mailto:daane@dera.co.za)

Scan\_20180124\_150344.pdf;

.....

# DERA

8 January 2018

## Environmental Consultants

To whom it may concern

**CONSULTATION WITH INTERESTED AND AFFECTED PARTIES WITH REGARD TO AN APPLICATION FOR A PROSPECTING RIGHT IN TERMS SECTION 16 OF THE MINERALS AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (ACT 28 OF 2002) AND NEMA, EIA 2014 OVER: PORTION 5 (PORTION OF PORTION 1) OF THE FARM DRIEKUIL 280 IP, IN THE LICHTENBURG DISTRICT.**

You are herewith informed that **Jim Foster Landgoed CC** has submitted an application in terms of Section 16 of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002) and NEMA, EIA 2014, to the Regional Manager: Mineral Regulation, Northern West Region in respect of the prospecting of **Pyrophyllite (Ph)** in the magisterial district of Lichtenburg.

**Jim Foster Landgoed CC** is in the process of compiling the Basic Assessment Report (BAR), which needs to be submitted at the Regional Office of DMR. The document will be available for I&AP's for comments. See attached the Sketch plan & Environmental Authorisation.

In terms of Section 10 of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002), and in terms of Regulation 39(1) of the regulations published in the Government Notice No. R10328 (of 4 December 2014) under Chapter 6 of the NEMA, EIA 2014, the landowner or legal occupier of the land, as well as any other interested party must be notified and consulted with in terms of the proposed project.

**Jim Foster Landgoed CC** deems it necessary to consult with inter alia yourself / your company/ your organization, and you are therefore kindly requested to comment very clearly and unambiguously with regards to the proposed prospecting project. You are requested to submit in writing, any interest/ objection and/or comments you may have and return it to the appointed consultants (**Reference no. NW30/5/1/1/2/12235PR**) within 30 days from the date of receipt of this letter. If no correspondence is received from you within the mentioned time frame, the applicant shall accept that you have no objection with the proposed prospecting activities.

Please call me if any further information is needed.

Your co-operation will be appreciated.

Yours faithfully

  
**Daan Erasmus (DERA Environmental Consultants)**

.....



A. Otto.

REGISTRATION FORM AND COMMENT FOR THE PUBLIC PARTICIPATION PROCESS  
PROPOSED PROSPECTING RIGHT OVER PORTION 5 (PORTION OF PORTION 1) OF THE FARM DRIEKUIL 280 IP,  
LICHTENBURG DISTRICT.

Daan Erasmus  
P.O. Box 6499  
KLERKSDORP  
2572

Tel. 018-468 5355  
Fax: 018-468 4015  
Mobile: 082 895 3516  
E-mail: daane@dara.co.za

**PERSONAL INFORMATION:**

Title/Titaf. MR Initials/Voorletters: J.P. First Name/Eerste naam: JOHANNES

Surname/Van: OTTO

E-mail/E-pos: j.p.otto@lantic.net

Telephone/Telofoon: 082 774 3993 Fax/Faks: 086 750 9976

Organisation (if applicable)/Organisasie (indien van toepassing):

Capacity (member, etc.)/Kapasiteit (lid ens):

Landowner/Grondeienaar/Neighbour/Buurman/ Interested and/or affected party on the farm/ op die plaas: DROEKRAAL

Postal Address/ Posadres: Postbus 253,

Town/City/Dorp/Stad: OTTOSDAL Code/Kode: 2610

**COMMENT/OBJECTION:**

1. What is the nature of your interest in the proposed project/Wat is u belang in die voorgename projek?  
/

2. Do you have any ground for objection or do you support the proposed project/Het u enige gronde tot beswaar of ondersteun u die bogenoemde projek?  
GEEN BESWAAR.

~~YES/NO~~ JA/NEE

If "Yes", please list shortly/Indien 'JA', lys asseblief kortliks.

3. Do you foresee that this activity will have a negative impact on yourself or the environment/Voorsien u dat die voorgename projek 'n negatiewe inpak kan he op uself of die omgewing?

~~YES/NO~~ JA/NEE

If "Yes", please describe shortly/indien 'JA', verduidelik asseblief kortliks

Filled in on/Ingevu op 16 day of /dag van FEB (month)/(maand) 2018

J.P. OTTO

Name and Surname/ Company

Naam en Van/Maatskappy

[Signature]  
Signature/Handtekening



M. TAIT

REGISTRATION FORM AND COMMENT FOR THE PUBLIC PARTICIPATION PROCESS  
PROPOSED PROSPECTING RIGHT OVER PORTION 5 (PORTION OF PORTION 1) OF THE FARM DRIEKUIL 280 IP,  
LICHTENBURG DISTRICT.

Daan Erasmus  
P.O. Box 6499  
KLERKSDORP  
2572

Tel. 018-468 5355  
Fax: 018-468 4015  
Mobile: 082 895 3516  
E-mail: daane@dera.co.za

PERSONAL INFORMATION:

Title/Titel: Mev Initials/Voorletters: M.B First Name/Eerste naam: MARIA  
Surname/Van: TAIT  
E-mail/E-pos: john.tait@lmeaw.co.za  
Telephones/Telefoon: 0716986463 Fax/Faks: -  
Organisation (if applicable)/Organisasie/bedien van toepassing: NvT  
Capacity (member, etc.)/Kapasiteit (lid ens): OKKUPERDER  
Landowner/Grondseigneur/Neighbour/Buurman/ Interested and/or affected party on the farm/ op die plaas:  
Postal Address/ Posadres: PO BOX 671 OTTOSDORP  
Town/City/Dorp/Stad: OTTOSDORP Code/Kode: 2610

COMMENT/OBJECTION:

- 1. What is the nature of your interest in the proposed project/Wat is u belang in die voorgename projek?  
ONS BEN BEREIKEL IN DIE VOORGENOME PROJEK
- 2. Do you have any ground for objection or do you support the proposed project/Het u enige gronde tot beswaar of ondersteun u die bogenoemde projek?  
NEE/JA

YES/NO JA/NEE

If "Yes", please list shortly/Indien 'JA', lys asseblief kortliks.  
JA - GY BY DIE REELS VAN DIË EN OMGEWINGS INPAKSTUDIE EN OPEENLIKE KOMMUNIKASIE

3. Do you foresee that this activity will have a negative impact on yourself or the environment/Voorsien u dat die voorgename projek 'n negatiewe inpak kan he op uself of die omgewing?

YES/NO (JA)NEE  
If "Yes", please describe shortly/Indien 'JA', verduidelik asseblief kortliks.  
JA - LAAT DIE TERREIN SOOS WAT DIT GEKRY IS - REHABILITEER ORDENTLIK.

Filled in on/Ingevol op...14<sup>e</sup> day of /dag van...FEBRUARIE (month)/(maand) 2018  
OKKUPERDER Maria

Name and Surname/ Company  
Naam en Van/Maatskappy

Signature/Handtekening

## Office

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**From:** susan@fosterprok.co.za  
**Sent:** Wednesday, February 14, 2018 9:06 AM  
**To:** Office  
**Subject:** Jim Foster Landgoed  
**Attachments:** Scan1.PDF

Beste Gedra,  
Hier is die PPF vir Jim Foster Landgoed vanaf Me Tait solank.  
Die 1 buurman sal syne later bring dan stuur ek dit aan.

Groete  
Susan

.....  
**DERA**

*Environmental Consultants*

To: **Ditsobotla Local Municipality -  
Municipal Manager: Mr. M. Juta (acting)**

Fax: **018 632 5247**

---

From: **Daan Erasmus**

Date: **8 January 2018**

---

Re: **Proposed Prospecting Right application –  
consultation letter**

Pages: **1 + 2**

---

CC:

Urgent

For Review

Please Comment

Please Reply

Please Recycle


---

Please find attached the consultation letter of Jim Foster Landgoed CC for a Prospecting Right application on Portion 5 (Portion of Portion 1) of the farm Driekuil 280 IP, in the Lichtenburg district.

The Department of Mineral Resources requested that we inform the Ditsobotla Local Municipality of the proposed Prospecting application as part of the Public Participation process with interested and/or affected party.

It would be highly appreciated if you could sign the attached consultation letter and return it to Dera Environmental Consultants at fax: 018 468 4015 or e-mail it to [dera.office@dera.co.za](mailto:dera.office@dera.co.za).

Should you have any questions regarding the above, please call Mr. Erasmus at 082 895 3516

Thank you,  
P.P.   
Daan Erasmus

.....

# DERA

8 January 2018

## Environmental Consultants

To whom it may concern

**CONSULTATION WITH INTERESTED AND AFFECTED PARTIES WITH REGARD TO AN APPLICATION FOR A PROSPECTING RIGHT IN TERMS SECTION 16 OF THE MINERALS AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (ACT 28 OF 2002) AND NEMA, EIA 2014 OVER: PORTION 5 (PORTION OF PORTION 1) OF THE FARM DRIEKUIL 280 IP, IN THE LICHTENBURG DISTRICT.**

You are herewith informed that **Jim Foster Landgoed CC** has submitted an application in terms of Section 16 of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002) and NEMA, EIA 2014, to the Regional Manager: Mineral Regulation, Northern West Region in respect of the prospecting of **Pyrophyllite (Ph)** in the magisterial district of Lichtenburg.

**Jim Foster Landgoed CC** is in the process of compiling the Basic Assessment Report (BAR), which needs to be submitted at the Regional Office of DMR. The document will be available for I&AP's for comments. See attached the Sketch plan & Environmental Authorisation.

In terms of Section 10 of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002), and in terms of Regulation 39(1) of the regulations published in the Government Notice No. R10328 (of 4 December 2014) under Chapter 6 of the NEMA, EIA 2014, the landowner or legal occupier of the land, as well as any other interested party must be notified and consulted with in terms of the proposed project.

**Jim Foster Landgoed CC** deems it necessary to consult with inter alia yourself / your company/ your organization, and you are therefore kindly requested to comment very clearly and unambiguously with regards to the proposed prospecting project. You are requested to submit in writing, any interest/ objection and/or comments you may have and return it to the appointed consultants (**Reference no. NW30/5/1/1/2/12235PR**) within 30 days from the date of receipt of this letter. If no correspondence is received from you within the mentioned time frame, the applicant shall accept that you have no objection with the proposed prospecting activities.

Please call me if any further information is needed.

Your co-operation will be appreciated.

Yours faithfully

  
**Daan Erasmus (DERA Environmental Consultants)**

.....

REGISTRATION FORM AND COMMENT FOR THE PUBLIC PARTICIPATION PROCESS  
PROPOSED PROSPECTING RIGHT OVER PORTION 5 (PORTION OF PORTION 1) OF THE FARM DRIEKUIL 280 IP,  
LICHTENBURG DISTRICT.

Daan Erasmus  
P.O. Box 6499  
KLERKSDORP  
2572

Tel. 018-468 5355  
Fax: 018-468 4015  
Mobile: 082 895 3516  
E-mail: [daane@dera.co.za](mailto:daane@dera.co.za)

**PERSONAL INFORMATION:**

Title/Titel:..... Initials/Voorletters: ..... First Name/Eerste naam:.....

Surname/Van.....

E-mail/E-pos.....

Telephone/Telefoon..... Fax/Faks.....

Organisation (if applicable)/Organisasie(indien van toepassing): .....

Capacity (member, etc.)/Kapasiteit (lid ens): .....

Landowner/Grondeienaar/Neighbour/Buurman/ Interested and/or affected party on the farm/ op die plaas.....

Postal Address/ Posadres .....

Town/City/Dorp/Stad: ..... Code/Kode: .....

**COMMENT/OBJECTION:**

1. What is the nature of your interest in the proposed project/Wat is u belang in die voorgename projek?  
.....  
.....

2. Do you have any ground for objection or do you support the proposed project/Het u enige gronde tot beswaar of ondersteun u die bogenoemde projek?  
.....  
.....

**YES/NO JA/NEE**

If "Yes", please list shortly/Indien 'JA', lys asseblief kortliks.  
.....  
.....

3. Do you foresee that this activity will have a negative impact on yourself or the environment/Voorsien u dat die voorgename projek 'n negatiewe inpak kan he op uself of die omgewing?

**YES/NO JA/NEE**

If "Yes", please descibe shortly/Indien 'JA', verduidelik asseblief kortliks.  
.....  
.....

Filled in on/Ingevol op..... day of /dag van..... (month)/(maand) 2018

Name and Surname/ Company

Signature/Handtekening

Naam en Van/Maatskappy

.....

## TRANSACTION REPORT

24/JAN/2018/WED 15:21

## FAX (TX)

#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
001	24/JAN	15:19	0186325247			MEMORY NO RESPONSE	1992

THE FOLLOWING DATA COULD NOT BE SENT.  
PLEASE GIVE THIS TRANSACTION REPORT TO SENDER.

FLAMWOOD  
2572

Cell. 082 895 3516

Tel. 018-468 5355

Fax. 018-468 4015

Fax2mail. 086 578 3085

E-mail: [dera.office@dera.co.za](mailto:dera.office@dera.co.za)

DERA

## Environmental Consultants

To: Ditsobotla Local Municipality -  
Municipal Manager: Mr. M. Juta (acting)

Fax: 018 632 5247

From: Daan Erasmus

Date: 8 January 2018

Re: Proposed Prospecting Right application –  
consultation letter

Pages: 1 + 2

CC:

Urgent

For Review

Please Comment

Please Reply


Please Recycle

Please find attached the consultation letter of Jim Foster Landgoed CC for a Prospecting Right application on Portion 5 (Portion of Portion 1) of the farm Driekuif 280 IP, in the Lichtenburg district.

The Department of Mineral Resources requested that we inform the Ditsobotla Local Municipality of the proposed Prospecting application as part of the Public Participation process with interested and/or affected party.

It would be highly appreciated if you could sign the attached consultation letter and return it to Dera Environmental Consultants at fax: 018 468 4015 or e-mail it to [dera.office@dera.co.za](mailto:dera.office@dera.co.za).

Should you have any questions regarding the above, please call Mr. Erasmus at 082 895 3516

Thank you  
P.P.   
Daan Erasmus



## Office

---

**From:** Office <dera.office@dera.co.za>  
**Sent:** Wednesday, January 24, 2018 3:40 PM  
**To:** Keabetswe Mothupi  
**Subject:** Verification of land claims - Driekuil 280 IP  
**Attachments:** Scan\_20180124\_151926.pdf

Good day Kea

See attached our request for verification of land claims on the farm Driekuil in Lichtenburg district.

Kind regards.

Ns/pp Gerda Els

Daan Erasmus

Dera Environmental Consultants/Dera Omgewingskonsultante P.O. Box 6499, Flamwood 2572 VAT No: 464 020 4881

Tel: 018 468 5355

Fax: 018 468 4015

Cell: 082 895 3516

Fax2mail: 086 578 3085

e-mail: [dera.office@dera.co.za](mailto:dera.office@dera.co.za) or [daane@dera.co.za](mailto:daane@dera.co.za)

Scan\_20180124\_151926.pdf;

.....  
**DERA**

8 January 2018

## Environmental Consultants

**Departement of Land Affairs & Rural Development**

**Attention: Keabetswe Mothupi**

**Re: Verification of Land Claims**

We are Environmental Consultants situated in Klerksdorp and has applied on behalf of **Jim Foster Landgoed CC** for a prospecting right on the following farm in the **Lichtenburg** district.

- Portion 5 (Portion of portion 1) of the farm Driekuil 280 IP

Could you please be so kind to verify if there are any land claims over the farms as mentioned above?

It would be highly appreciated if you could help us in this matter as soon as possible.

Please feel free to contact the office of Dera Environmental Consultants or Mr. Erasmus on his cell: 082 895 3516 for any further information.

Yours truly,

P.P. 

Daan Erasmus

.....

## Daan

---

**From:** Marisa Pienaar <Marisapienaar@assore.com>  
**Sent:** Friday, March 2, 2018 3:04 PM  
**To:** daane@dera.co.za  
**Cc:** Rocklin Reed  
**Subject:** REGISTRATION AS IAP - Jim Foster Landgoed CC (NW30/5/1/1/2/12235PR)

To: Daan Erasmus

Dear Daan

The above matter and the site notice erected on Driekuil 280IP re the above proponent refer.

Kindly register the following party as an IAP

Wonderstone Limited  
Private Bag X03  
Northlands  
2116

Contact Person: Marisa Pienaar

Contact No: 011 770- 6827

Wonderstone currently holds a New Order Mining Right over Portions 1,2,4,7( a portion of Portion 1) of Gestoptefontein 280IP for Pyrophyllite(Wonderstone)

Please include us in all correspondence and the BID documentation going forward.

Please confirm receipt of this e-mail and registration request.

Kind Regards

Marisa Pienaar  
Environmental Officer  
Assore Operations and Growth.  
Tel: (011) 770-6827  
Fax:(011) 268-6918



BEFORE PRINTING THIS E-MAIL  
*please consider the environment*

## PUBLIC NOTICE

### APPLICATION FOR AN ENVIRONMENTAL AUTHORIZATION FOR THE PROPOSED ACTIVITIES.

Notice is given for the following application:

- 1) Environmental authorization application for prospecting.

- **Proponent:** The applicant is Jim Foster Landgoed CC
- **Ref. no:** NW30/5/1/1/2/12235PR
- **Property description:** The proposed prospecting area is over Portion 5 (Portion of Portion 1), of the farm Driekuul 280 IP, in the magisterial district of Lichtenburg. The total extent of the prospecting area is 268.6925 hectares. (21 SG digital codes: T0IP00000000028000005)
- **Location:** The property is situated ±15 km north-east of Ottosdal.
- **Project description:** The purpose of the application is to obtain the required authorisation from the Department to successfully: undertake geological surveys & drilling.
- **Activity applied for:** the following activities as listed in terms of NEMA (Act No. 107 of 1998) as amended and EIA Regulations, 2014 was applied for under Listing Notice 1 – GNR 327 of 2014, Activity 20
- **Minerals applied for:** Pyrophyllite (Ph)
- **Date submitted:** 16 November 2017
- **Stakeholder involvement:** Stakeholders are invited to register as interested and affected parties and to participate in the application process by identifying issues of concern and suggestions for consideration in the Basic Assessment Report (BAR) & Environmental Management Program (EMPr), and are also invited to contact Dera Environmental Consultants for any further information regarding the project. Please submit your written comments by mail, fax or e-mail in this 30 day of this notice to:  
Mr. Daan Erasmus of DERA Environmental Consultants  
PO Box 6499                      E-mail: daane@dera.co.za  
Flamwood                        Fax2Mail:086 578 3085  
2572                                Fax: 018 468 4015  
    Cell: 082 895 3516;
- **Date of advertisement:** Friday 2 February 2018
- **Date of meeting & Venue:** Thursday 8 February 2018 at Foster Attorneys, 12 Ottostreet, Ottosdal
- **Time:** 9H00



23 SPESIALE DIENSTE SPESIALE SERVICES

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ennisgewings/egal

NOTICE IN THE HIGH COURT OF SOUTH AFRICA... (legal notice text)

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NOTICE IN THE HIGH COURT OF SOUTH AFRICA... (legal notice text)



WESTVAAL MOTOR HOLDINGS

HRA10 Vacant position NEW and USED Vehicle Sales consultant

Westval, a dynamic motor dealership group in North West, Free State, Mpumalanga & Limpopo as well as Gauteng, requires a suitable candidate for the position of New and Used vehicle sales consultant situated in Westval/Lichtenburg.

Duties / Responsibilities:

- Provide sales consultation, achieve Customer objectives, be knowledgeable by knowing the product you are selling & create owner loyalty and goals related to vehicle sales, and profit;
• Apply marketing strategies to maximize sales opportunities;
• Complete required vehicle sales paperwork according to Dealership Policies and dealer website;
• Establish and manage Customer enthusiasm ensuring excellent customer service levels at all times and therefore a high Customer Satisfaction Index; and;
• Ensure compliance with various accounting /other regulations and guidelines

Requirements:

- Relevant Marketing qualification & 3 years relevant experience;
• Management and self-driven abilities coupled with strong sales and customer service skills;
• Application of Policies & Procedures, Business Operations, Marketing, Brand / product knowledge, financial analysis and Selling and Teamwork;
• Application of Policies & Procedures, computer literate.

Salary: Market Related Salary.
Benefits: Performance Incentive, Company Vehicle, Medical Aid & Provident Fund.
E-mail a short CV to: fairs@westval.co.za and info@westval.co.za

If you have not been contacted within one week of the closing date, please consider your application as unsuccessful.
Closing date: 8th February 2018

WESTVAAL MOTOR HOLDINGS

HRA18 Vacancy for the position of Receptionist and Cashier

Westval, a dynamic motor dealership group in North West, Free State, Gauteng, Mpumalanga & Limpopo as well as Gauteng, requires a suitable candidate for the position of Receptionist and Cashier in the Lichtenburg dealer.

Duties / Responsibilities:

- Assisting Customers in the reception area courteously.
• Answering of the switchboard according to company standard and promptly.
• Capture information on in-house system and keep proper records.
• Identify discrepancies and report to manager.
• Manage the tracing of information and handling of queries.
• Ensure compliance with various accounting /other regulations and guidelines.

Requirements:

- Grade 12 with Maths and Accounting as subjects.
• Relevant experience of at least 2 years in administration.
• Application of Policies & Procedures, computer literate.
• Communication, Customer Handling, Computer Knowledge.

Salary: Market Related Salary.
Benefits: Medical Aid & Provident Fund.
E-mail a short CV to: fairs@westval.co.za or info@westval.co.za. If you have not been contacted within one week of the closing date, please consider your application as unsuccessful.
Closing date: 8th February 2018.

TE HUUR ROOI TAPYT

Vir meer inligting kontak Elsje of Ronel by 018 632 6038/9

Our paper reaches more places, more people!

BRONKOP Ondernemings... (text about business services)

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NORTHMEC SALES REPRESENTATIVE

Education: Minimum Grade 12/Agricultural Matric.

- Marketing experience.
• Technical exposure.
• Product knowledge in agricultural mechanisation.
• NM or NH Product experience.
• Basic computer literacy.
• Car + Petrol allowance.

E-mail: matroos@northmec.co.za

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NWK BEPERK EN FILIALE

Ons besik tans oor die volgende posisie:

VLOERBESTUURDER (Zeerust-handelswinkel)

Aansoek kan altyd gedoen word deur NWK se webtuiste. Vir meer inligting besoek asseblief www.nwk.co.za. Vir enige navraag, kontak Willem Oudelaar by (018) 633 1039. Besoek ons Facebook-blaad by www.facebook.com/NWKLimited

Die sluitingsdatum vir aansoek is 8 Februarie 2018. Indien u nie binne twee weke na die sluitingsdatum vir 'n onderhoude genooi word nie, moet u aanvaar dat u aansoek onsuksesvol was. NWK ondersleu die oopmerk van die Wet op Gelyke Indiensneming en gee voorkeur aan aansoekers uit die benoemde groep. Kandidate met gestructureerde word aangemoedig om aansoek te doen. NWK behou die reg voor om die pos nie te vul nie.

Jou greep op die mark

www.nwk.co.za

NWK Beperk is 'n opvoedende maatskappij wat verskeie maatskappij, daaronder 'n 'n gesamentlike maatskappij (ingestuurde) 2789.

HENWIL CHICKENS LICHTENBURG FITTER

Responsibilities and Requirements:

- At least 3 years' relevant experience
• Welding
• Added advantage if candidate has experience with the following:
o FMCG machines;
o Tig/ Argon welding
o Water pumps

Closing date for applications: 08/02/2018

Please note, if you have not been invited for an interview kindly accept that your application was unsuccessful.

Applications can be submitted via email at: hr@henwilchickens.com

Vakature - Soutpanbestuurder

Die Donald Brown Groep is 'n dinamiese organisasie in die sout bedryf en benodig 'n ervare Panbestuurder om by Saitcor, Uprington, by die Kaleshari Soupan naby Ashkham aan te sluit.

SELETELPLIGTE

- Bestuur van personeel
• Alle produksie sout en soutprodukte by die soutwerke
• Instandhouding van panne, masjinerie en toerusting
• Rekordhouding van hoeveelhede sout, reëval, diesel verbruik ens.

POSISIE

- 5-10 jaar relevante ondervinding
• Moet onafhanklik kan funksioneer
• Goede organisasieervaring
• Bestuursvaardigheid
• Maganiese kennis
• Noukeunigheid en akkuraatheid

Salaris is onderhandelbaar. Daar is verblyf beskikbaar op die pan



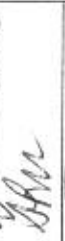
Belangstellende kandidaat kan hul CV aan wallyv@dbgroup.co.za stuur of faks na 021 951 6509. Sluitings datum is 9 Februarie 2018. Indien u geen terugvoer ontvang het na 2 weke nie kan u aanvaar dat u aansoek onsuksesvol was.

AGENDA OF PUBLIC MEETING  
JIM FOSTER LANDGOED CC

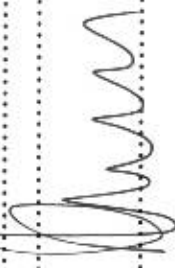
Prospecting Right over Portion 5 (Portion of Portion 1) of the farm Driekuil 280 IP, District of Lichtenburg.

Venue: Foster Attorneys, 12 Ottosfreet, Ottosdal  
Date: Thursday 8 February 2018  
Time: 9H00

1. Welcome
2. Background of proposed Prospecting Right
3. Open discussion on impacts and mitigation measures
4. Closure

ATTENDANCE REGISTER OF PUBLIC MEETING			
Name	Capacity:	Cell No.	Signature
1 Daan Erasmus	DERA Environmental Consultants	0828953516	
2 Susan Foster Smith	Attorney for Jim Foster Landgoed	0145710031	
3 John Tait	Occupier	0825723951	
4			
5			
6			

Comments: .....

Date: 8/2/2018 Signature: 



## SITE NOTICE

### APPLICATION FOR AN ENVIRONMENTAL AUTHORIZATION FOR THE PROPOSED ACTIVITIES.

Notice is given for the following application:

- 1) Environmental authorization application for prospecting.

- **Proponent:** The applicant is Jim Foster Landgoed CC
- **Ref. no:** NW30/5/1/1/2/12235PR
- **Property description:** The proposed prospecting area is over Portion 5 (Portion of Portion 1), of the farm Driekuul 280 IP, in the magisterial district of Lichtenburg. The total extent of the prospecting area is 268.6925 hectares. (21 SG digital codes: T0IP00000000028000005)
- **Location:** The property is situated  $\pm 15$  km north-east of Ottosdal.
- **Project description:** The purpose of the application is to obtain the required authorisation from the Department to successfully: undertake geological surveys & drilling.
- **Activity applied for:** the following activities as listed in terms of NEMA (Act No. 107 of 1998) as amended and EIA Regulations, 2014 was applied for under Listing Notice 1 – GNR 327 of 2014, Activity 20
- **Minerals applied for:** Pyrophyllite (Ph)
- **Date submitted:** 16 November 2017
- **Stakeholder involvement:** Stakeholders are invited to register as interested and affected parties and to participate in the application process by identifying issues of concern and suggestions for consideration in the Basic Assessment Report (BAR) & Environmental Management Program (EMPr), and are also invited to contact Dera Environmental Consultants for any further information regarding the project. Please submit your written comments by mail, fax or e-mail in this 30 day of this notice to:  
Mr. Daan Erasmus of DERA Environmental Consultants  
PO Box 6499                      E-mail: daane@dera.co.za  
Flamwood                         Fax2Mail:086 578 3085  
2572                                 Fax: 018 468 4015  
   Cell: 082 895 3516;
- **Date of advertisement:** Friday 2 February 2018
- **Date of meeting & Venue:** Thursday 8 February 2018 at Foster Attorneys, 12 Ottostreet, Ottosdal
- **Time:** 9H00





CALCULATION OF THE QUANTUM

Applicant:  
Evaluators:

Jim Foster Landgoed

12235PR  
3/3/2018

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 powerlines)	m3	0	14.05	1	1	0
2 (A)	Demolition of steel buildings and structures	m2	0	195.76	1	1	0
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	288.49	1	1	0
3	Rehabilitation of access roads	m2	0	35.03	1	1	0
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	340.01	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	185.46	1	1	0
5	Demolition of housing and/or administration facilities	m2	0	391.53	1	1	0
6	Opencast rehabilitation including final voids and ramps	ha	0	205242.16	1	1	0
7	Sealing of shafts adits and inclines	m3	0	105.09	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0	136828.1	1	1	0
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-potential potential)	ha	0	170416.93	1	1	0
8 ( C )	Rehabilitation of processing waste deposits and evaporation ponds (potential potential)	ha	0	494971.55	1	1	0
9	Rehabilitation of subsided areas	ha	0	114572.93	1	1	0
10	General surface rehabilitation	ha	0.15	108390.94	1	1	16258.641
11	River diversions	ha	0	108390.94	1	1	0
12	Fencing	m	0	123.64	1	1	0
13	Water management	ha	0	41213.28	1	1	0
14	2 to 3 years of maintenance and aftercare	ha	0	14424.65	1	1	0
15 (A)	Specialist study	Sum	0				0
15 (B)	Specialist study	Sum					0
					Sub Total 1		16258.641

1	Preliminary and General	1951.03692	weighting factor 2	1951.03692
2	Contingencies	1625.8641	1	1625.8641
		Subtotal 2		19835.54
		VAT (14%)		2776.98
		Grand Total		22613



***REPORT ON THE PROTECTION OF ROCK ART SITES ON PORTION 5 OF  
DRIEKUIL 280 IP NORTH-WEST PROVINCE, SOUTH AFRICA***

**Phase 1 – Heritage Assessment**

**Issue Date:** 2 February 2014

**Revision No.:** 1

**Project No.:**

**Declaration of Independence**

*PGS Heritage, an appointed Heritage Specialist for Sino Rock, has compiled the report. The views stipulated in this report are purely objective and no other interests are displayed during the decision making processes discussed in the Heritage Impact Assessment Process.*

**HERITAGE CONSULTANT:** PGS Heritage

**CONTACT PERSON:** Dr Jeremy C. Hollman  
Tel: +27 (0) 12 332 5305  
Email: wouter@pgsheritage.co.za

**SIGNATURE:**

A handwritten signature in black ink, appearing to be 'JCH', written over a horizontal line.

**ACKNOWLEDGEMENT OF RECEIPT**

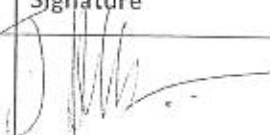

**CLIENT:** Sino Rock

**CONTACT PERSON:** Dr Johan van Rijn  
Email:  
Tel:

**SIGNATURE:**

---



<b>Date:</b>	30 January 2014		
<b>Document Title:</b>	Report on the protection of rock art sites on portion 5 of Driekuil 280 IP North-West Province, South Africa		
<b>Control</b>	<b>Name</b>	<b>Signature</b>	<b>Designation</b>
<b>Authors</b>	J.C. Hollmann		Principal Investigator
<b>Reviewed</b>	W. Fourie		Heritage Specialist
<b>Client:</b>	Dr Johan van Rijn		Sino Rock

## EXECUTIVE SUMMARY

1. Dr Johan van Rijn, Managing Director of Sino Rock, contracted with Dr Jeremy Hollmann, representing PGS Heritage, to assess the archaeological sites on portion 5 of Driekuil and to recommend steps to be taken to protect the archaeological sites from further damage.
2. A large pit, approximately 100 m<sup>2</sup> and c. 2 m at its deepest point, had been excavated within the legally prescribed 10 m exclusion zone of the rock art site. Dr Van Rijn confirmed that the new excavation was carried out without the necessary permit from the South African Heritage Resources Agency (SAHRA).
3. Dr Van Rijn expressed a willingness to take whatever action is necessary to protect the archaeological sites on portion 5 from any further damage and to rehabilitate the damage caused by the excavation, which was carried out by employees of Sino Rock.
4. Dr Hollmann demarcated a 10 m exclusion zone around all three outcrops and has made recommendations regarding the fencing of the outcrops, provision of signage and rehabilitation of the excavated pits at the foot of Outcrop 2.
5. No further activities are to be carried out by the permit holder or his proxies on portion 5 of Driekuil until the recommendations in this report have been approved by SAHRA and the necessary permits have been obtained.
6. The installation of the fence should be supervised by a suitably qualified heritage professional to ensure that the rock art and the area within the protective 10 m zone is not damaged in any way.

CONTENTS	Page
1 INTRODUCTION	1
2 SCOPE OF THE STUDY	1
2.1 Specialist Qualifications	1
2.2 Assumptions and Limitations	1
2.3 Legislative Context	2
2.4 Terminology and Abbreviations	3
3 TECHNICAL DETAILS OF THE PROJECT	7
3.1 Site Location	7
3.2 Site Description	8
3.3 Project Description	8
4 ASSESSMENT METHODOLOGY	8
4.1 Methodology for Assessing Heritage Site Significance	8
5 FIELD WORK FINDINGS	10
5.1 Site significance	10
5.2 Heritage Findings	11
6 RECOMMENDATIONS	14
6.1 Construction of fence and gate	15
6.2 Signage	15
6.3 Filling of excavation pits	15
7 REFERENCES	16

## List of Appendices

### A Legislative Requirements – Terminology and Assessment Criteria

#### List of Figures

<i>Figure 1 - Human and Cultural Time line in Africa (Morris, 2009).</i> .....	6
<i>Figure 2 – Regional locality (Rock art sites that comprise the GDC complex. The rock art sites on portion 5 of Driekuil are represented by the dot numbered 12.)</i> .....	7
<i>Figure 3 - View of Outcrop 2 from the south west, looking north-east. This outcrop is approximately 61 m long. Photograph taken in 2009.</i> .....	8
<i>Figure 4 - The 'old' quarry at left, and the pit, at right, excavated by Sino Rock on 18 and 19 December 2014.</i> .....	11
<i>Figure 5 - Blue cross spraypainted over rock markings on Outcrop 2.</i> .....	13
<i>Figure 6 - Installation of poles as a temporary measure to designate the 10 m exclusion zone around the Outcrops 1,2 &amp; 3.</i> .....	14

## **1 INTRODUCTION**

PGS Heritage (PGS) was appointed by Sino Rock to undertake an archaeological assessment of the archaeological sites on portion 5 of Driekuil and to recommend steps to be taken to further protect the archaeological sites.

## **2 SCOPE OF THE STUDY**

The aim of the study is to identify and assess the archaeological sites on portion 5 of Driekuil and to recommend steps to be taken to further protect the archaeological sites.

### **2.1 Specialist Qualifications**

PGS Heritage (PGS) compiled this report.

The staff at PGS have a combined experience of nearly 70 years in the heritage consulting industry. PGS and its staff have extensive experience in managing HIA processes and will only undertake heritage assessment work where they have the relevant expertise and experience to undertake that work competently.

Dr Jeremy Hollman, Principal Rock Art Specialist for this project, is registered as a Professional Archaeologist with the Association of Southern African Professional Archaeologists (ASAPA) and has CRM accreditation within the said organisation.

Wouter Fourie, Principal Heritage Specialist for this project, is registered as a Professional Archaeologist with the Association of Southern African Professional Archaeologists (ASAPA) and has CRM accreditation within the said organisation, as well as being accredited as a Professional Heritage Practitioner with the Association of Professional Heritage Practitioners – Western Cape (APHP).

### **2.2 Assumptions and Limitations**

Not detracting in any way from the comprehensiveness of the fieldwork undertaken, it is necessary to realise that the heritage resources located during the fieldwork do not necessarily represent all the possible heritage resources present within the development area. Various factors account for this, including the subterranean nature of some archaeological sites. As such, should any heritage



features and/or objects not included in the present inventory be located or observed, a heritage specialist must immediately be contacted.

Such observed or located heritage features and/or objects may not be disturbed or removed in any way until such time that the heritage specialist has been able to make an assessment as to the significance of the site (or material) in question. This applies to graves and cemeteries as well. In the event that any graves or burial places are located during the development, the procedures and requirements pertaining to graves and burials will apply as set out below.

### 2.3 Legislative Context

The identification, evaluation and assessment of any cultural heritage site, artefact or find in the South African context is required and governed by the following legislation:

- i. National Environmental Management Act (NEMA) Act 107 of 1998
- ii. National Heritage Resources Act (NHRA) Act 25 of 1999
- iii. Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002

The following sections in each Act refer directly to the identification, evaluation and assessment of cultural heritage resources.

- i. National Environmental Management Act (NEMA) Act 107 of 1998
  - a. Basic Environmental Assessment (BEA) – Section (23)(2)(d)
  - b. Environmental Scoping Report (ESR) – Section (29)(1)(d)
  - c. Environmental Impacts Assessment (EIA) – Section (32)(2)(d)
  - d. Environmental Management Plan (EMP) – Section (34)(b)
- ii. National Heritage Resources Act (NHRA) Act 25 of 1999
  - a. Protection of Heritage Resources – Sections 34 to 36; and
  - b. Heritage Resources Management – Section 38
- iii. Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002
  - a. Section 39(3)

The NHRA stipulates that cultural heritage resources may not be disturbed without authorization from the relevant heritage authority. Section 34 (1) of the NHRA states that, “no person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by

the relevant provincial heritage resources authority...". The NEMA (Act No 107 of 1998) states that an integrated EMP should, (23:2 (b)) "...identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage". In accordance with legislative requirements and EIA rating criteria, the regulations of SAHRA and ASAPA have also been incorporated to ensure that a comprehensive legally compatible HIA report is compiled.

## 2.4 Terminology and Abbreviations

### *Archaeological resources*

This includes:

- i. material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years including artefacts, human and hominid remains and artificial features and structures;
- ii. rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10m of such representation;
- iii. wrecks, being any vessel or aircraft, or any part thereof which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the republic as defined in the Maritimes Zones Act, and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation;
- iv. features, structures and artefacts associated with military history which are older than 75 years and the site on which they are found.

### *Cultural significance*

This means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance

### *Development*

This means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of the heritage authority in any way result in a change to the

nature, appearance or physical nature of a place or influence its stability and future well-being, including:

- i. construction, alteration, demolition, removal or change in use of a place or a structure at a place;
- ii. carrying out any works on or over or under a place;
- iii. subdivision or consolidation of land comprising a place, including the structures or airspace of a place;
- iv. constructing or putting up for display signs or boards;
- v. any change to the natural or existing condition or topography of land; and
- vi. any removal or destruction of trees, or removal of vegetation or topsoil

#### *Early Stone Age*

The archaeology of the Stone Age, between 400 000 and 2500 000 years ago.

#### *Fossil*

Mineralised bones of animals, shellfish, plants and marine animals. A trace fossil is the track or footprint of a fossil animal that is preserved in stone or consolidated sediment.

#### *Heritage*

That which is inherited and forms part of the National Estate (Historical places, objects, fossils as defined by the National Heritage Resources Act 25 of 1999).

#### *Heritage resources*

This means any place or object of cultural significance.

#### *Holocene*

The most recent geological time period which commenced 10 000 years ago.

#### *Late Stone Age*

The archaeology of the last 30 000 years, associated with fully modern people.

### *Late Iron Age (Early Farming Communities)*

The archaeology of the last 1000 years up to the 1800s, associated with people who carried out iron working and farming activities such as herding and agriculture.

### *Middle Stone Age*

The archaeology of the Stone Age between 30-300 000 years ago, associated with early modern humans.

### *Palaeontology*

Any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trace.

<i>Abbreviations</i>	<i>Description</i>
<b>AIA</b>	<b>Archaeological Impact Assessment</b>
<b>ASAPA</b>	<b>Association of Southern African Professional Archaeologists</b>
<b>CRM</b>	<b>Cultural Resource Management</b>
<b>DEA</b>	<b>Department of Environmental Affairs</b>
<b>EIA practitioner</b>	<b>Environmental Impact Assessment Practitioner</b>
<b>EIA</b>	<b>Environmental Impact Assessment</b>
<b>ESA</b>	<b>Early Stone Age</b>
<b>GPS</b>	<b>Global Positioning System</b>
<b>HIA</b>	<b>Heritage Impact Assessment</b>
<b>I&amp;AP</b>	<b>Interested &amp; Affected Party</b>
<b>LSA</b>	<b>Late Stone Age</b>
<b>LIA</b>	<b>Late Iron Age</b>
<b>MSA</b>	<b>Middle Stone Age</b>
<b>MIA</b>	<b>Middle Iron Age</b>
<b>NEMA</b>	<b>National Environmental Management Act</b>
<b>NHRA</b>	<b>National Heritage Resources Act</b>
<b>PHRA</b>	<b>Provincial Heritage Resources Authority</b>
<b>ROD</b>	<b>Record of Decision</b>
<b>SADC</b>	<b>Southern African Development Community</b>
<b>SAHRA</b>	<b>South African Heritage Resources Agency</b>

Refer to Appendix A for further discussions on heritage management and legislative frameworks.

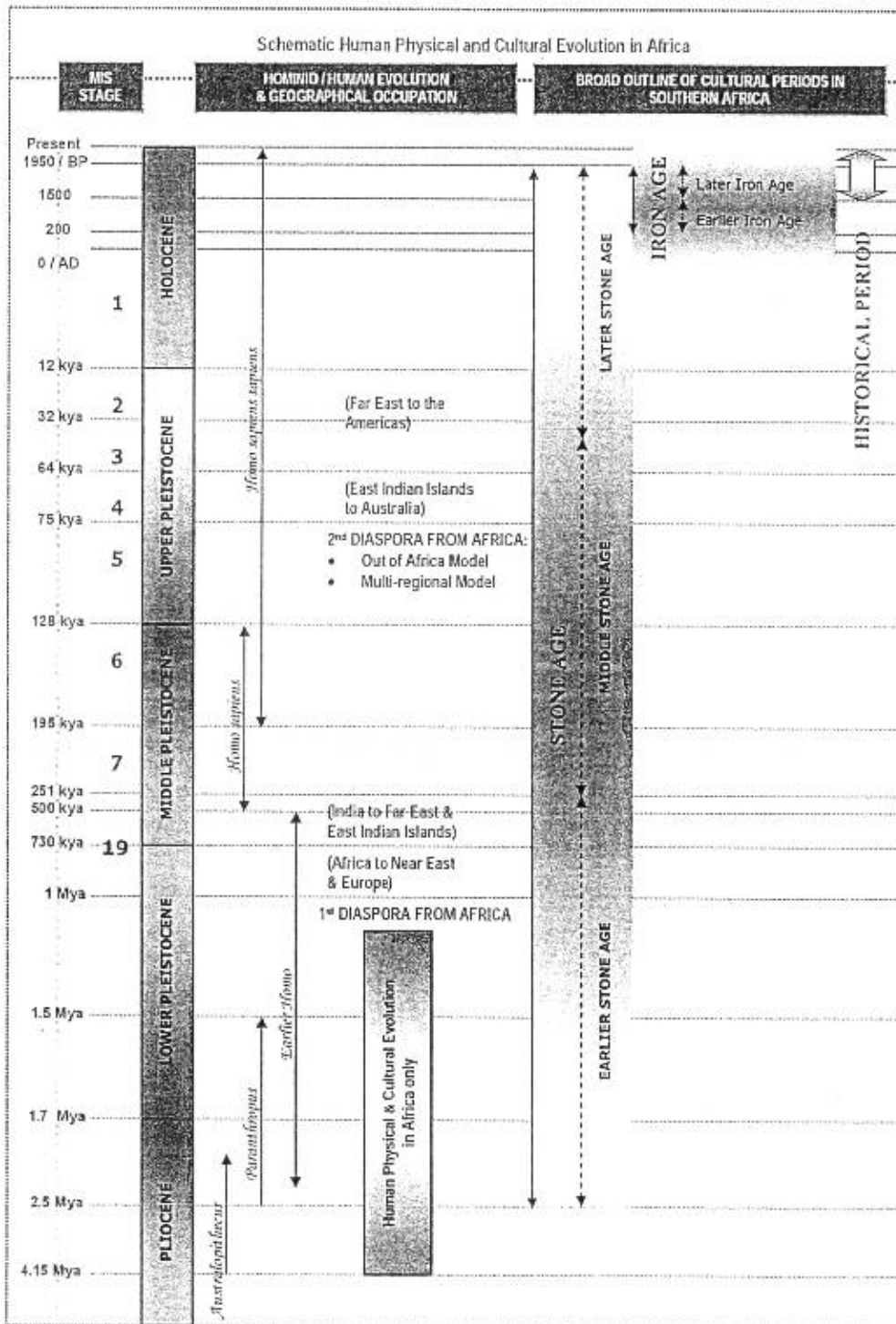


Figure 1 - Human and Cultural Time line in Africa (Morris, 2009).



### 3 TECHNICAL DETAILS OF THE PROJECT

#### 3.1 Site Location

The site, portion 5 of the farm Driekuul 280 IP, is approximately 6 km north east of the town of Ottosdal, on the Boschpoort Road (no road number), which is accessed via Koster Street in Ottosdal.

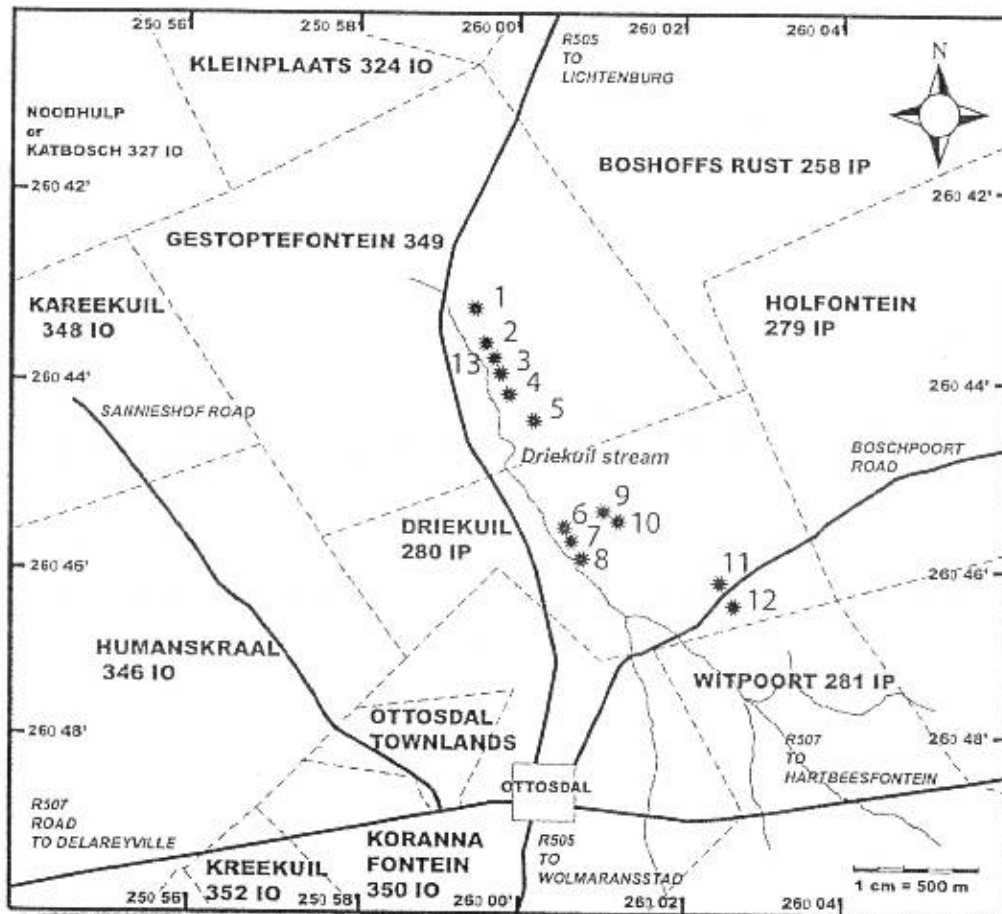


Figure 2 – Regional locality (Rock art sites that comprise the GDC complex. The rock art sites on portion 5 of Driekuul are represented by the dot numbered 12.)

### 3.2 Site Description

The rock art sites on portion 5 are on jagged outcrops that mark the end of the eastern belt of wonderstone on the farms Gestoptefontein and Driekuil (Nel et al. 1937: 7, 9). The Boschpoort road, as it is called, runs between the wonderstone outcrops – here very low (c. 5 m high) – dividing them into a northern and southern section. The northern area is much smaller, lower and more broken in character than the two larger and higher outcrops south of the road, on portion 5. The portion 5 sites are aligned along a northwest- southeast axis some 210 m long and are separated from each other by about 50 m. Portions of the outcrops have been quarried, but there are nonetheless many occurrences of motifs and markings on the rocks. The outcrops are covered with sparse vegetation comprising *Mundulea* and *Indigofera* shrubs and a thin cover of grass. Grassland and small trees surround the outcrops.



*Figure 3 - View of Outcrop 2 from the south west, looking north-east. This outcrop is approximately 61 m long. Photograph taken in 2009.*

### 3.3 Project Description

## 4 ASSESSMENT METHODOLOGY

The section below outlines the assessment methodologies utilised in the study.

### 4.1 Methodology for Assessing Heritage Site Significance

PGS Heritage (PGS) compiled this report for the proposed establishing the extent of damage to the Driekuil site.

The significance of identified heritage sites was based on four main criteria:

- Site integrity (i.e. primary vs. secondary context),

- Amount of deposit, range of features (e.g., stonewalling, stone tools and enclosures),
- Density of scatter (dispersed scatter)
  - Low - <10/50m<sup>2</sup>
  - Medium – 10-50/50m<sup>2</sup>
  - High - >50/50m<sup>2</sup>
- Uniqueness; and
- Potential to answer present research questions.

Management actions and recommended mitigation, which will result in a reduction in the impact on the sites, will be expressed as follows:

A – No further action necessary;

B – Mapping of the site and controlled sampling required;

C – No-go or relocate development activity position;

D – Preserve site, or extensive data collection and mapping of the site; and

E – Preserve site.

Impacts on these sites by the development will be evaluated as follows:

#### 4.1.1 Site Significance

Site significance classification standards prescribed by the SAHRA (2006) and approved by the ASAPA for the Southern African Development Community (SADC) region, were used for the purpose of this report.

*Table 1: Site significance classification standards as prescribed by SAHRA.*

FIELD RATING		GRADE	SIGNIFICANCE	RECOMMENDED MITIGATION
National (NS)	Significance	Grade 1		Conservation; National Site nomination
Provincial (PS)	Significance	Grade 2		Conservation; Provincial Site nomination
Local (LS)	Significance	Grade 3A	High Significance	Conservation; Mitigation not advised
Local (LS)	Significance	Grade 3B	High Significance	Mitigation (Part of site should be retained)
Generally Protected A (GP.A)		Grade 4A	High / Medium Significance	Mitigation before destruction
Generally Protected B		Grade 4B	Medium Significance	Recording before destruction

(GP.B)			
Generally Protected C (GP.A)	Grade 4C	Low Significance	Destruction

## 5 FIELD WORK FINDINGS

Dr Hollmann visited portion 5 of Driekuul on 28 and 29 January 2015. Drs Van Rijn and Hollmann held a short discussion in the late afternoon of 28th January and met the next day for further discussion about measures to be taken to protect the archaeological sites. Also present at the meeting on the 29th January was Ms Susan Foster-Smith, the attorney representing the owner of portion 5, Jim Foster Landgoed CC of which the sole member is Ms Engelina Jonker.

The archaeological sites on portion 5 comprise three outcrops (viz. 1, 2 & 3 as identified in Hollmann 2011) of the mineral wonderstone (89 % pyrophyllite [according to Nel et al 1937: 5]). These outcrops (as well as a further outcrop just north of the Boschpoort road) are covered with engravings of Khoe-San aprons, designs and animal images, as well by markings (scratched and hammered areas) that are believed to be associated with Khoe-San ceremonies related to the initiation of women (Hollmann 2011, 2013). The sites on portion 5 are thus rock art sites as defined in section 2b of the National Heritage Resources Act.

### 5.1 Site significance

The significance of the rock art sites on portion 5 of Driekuul lies in their use in the past by Khoe-San people in initiation ceremonies over an unknown period of time. These rock art sites are components of a larger complex of rock engravings and other markings, all of which are on wonderstone (a kind of pyrophyllite), and known collectively as the Gestoptefontein-Driekuul complex. The sites have high significance because they attest to the existence of a large ceremonial complex made on a unique material that allowed Khoe-San people in the past to interact with the rock in ways that were not possible at rock art sites made on different substrates. The rock powder was probably used for decoration and to associate initiates with the power of a mythical water snake. The proposed heritage rating allocated to the rock art sites on portion 5 is Grade 2 (Provincial heritage site status).



## 5.2 Heritage Findings

### 5.2.1 Inspection of site

Dr Hollmann inspected the site on Wednesday 28 January 2015 and observed that a large pit of approximately 100 m<sup>2</sup> and c. 2 m deep had been excavated within the legally prescribed 10 m exclusion zone of the rock art site (Outcrop 2 in Hollmann 2011: fig 1.34). According to the tenant on the farm Driekuul, Mr John Tait, employees of Sino Rock carried out the excavations on 18 and 19th December 2014. The excavation was carried out under a permit granted to Epidict (Pty) Ltd, Reg. no. 2008/018602/07, in the person of Brian Barnard. This permit was renewed on 18 December 2014, the same day that excavations on portion 5 commenced. Sino Rock is in a contractual relationship with Epidict.

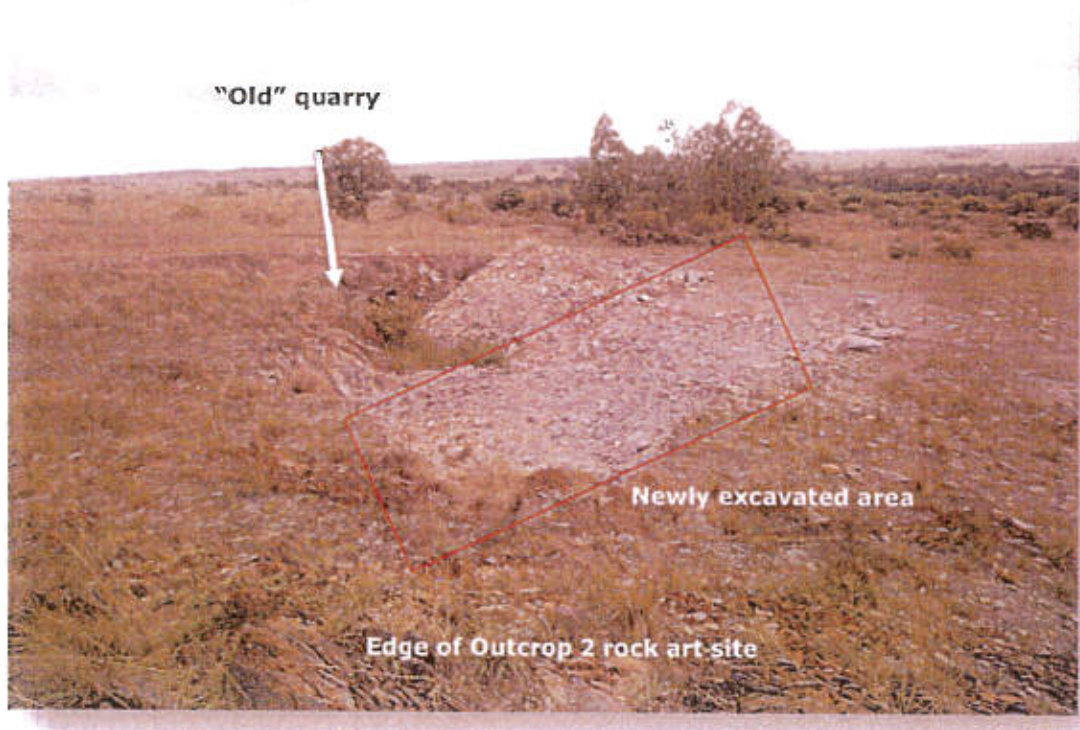


Figure 4 - The 'old' quarry at left, and the pit, at right, excavated by Sino Rock on 18 and 19 December 2014.



Dr Hollmann observed that the pit had been excavated immediately next to the outcrop and another pit that was excavated thirty or forty years ago. Dr Hollmann had visited portion 5 of Driekuul on 19 July 2014 and can confirm that there was no new pit at the time of this visit (Figure 4).

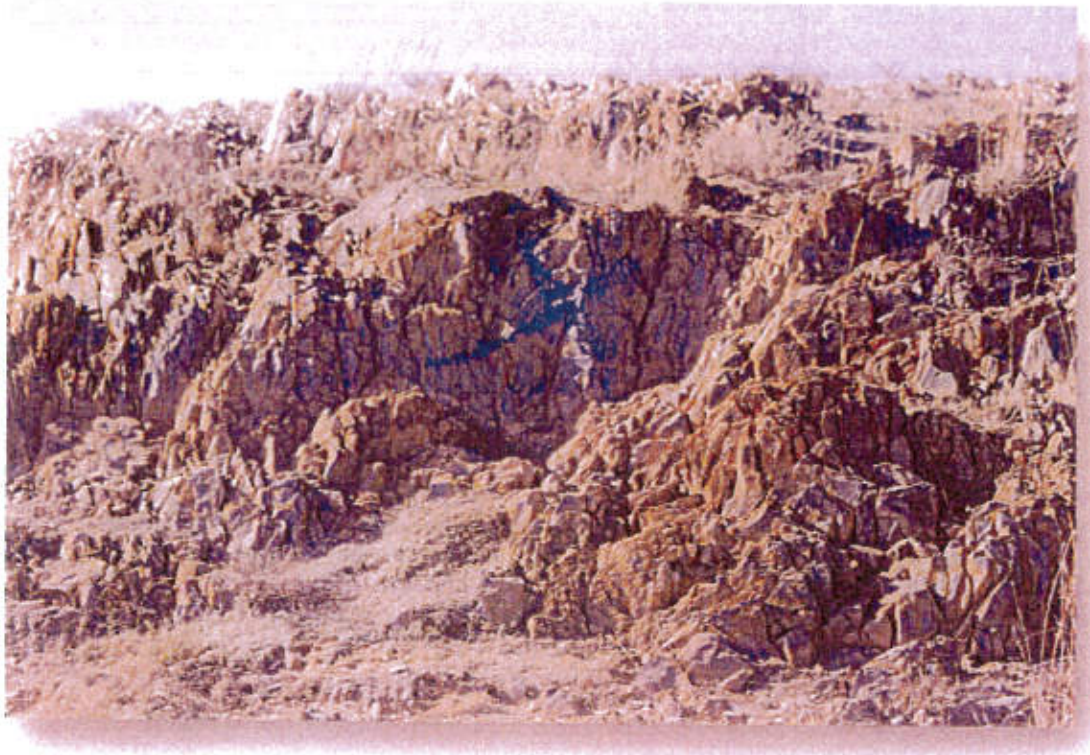
Dr Van Rijn confirmed that employees of Sino Rock acting under his orders were responsible for the new excavation. The owner of portion 5 of Driekuul, Ms Engelina Jonker, (Jim Foster Landgoed CC), gave permission through her attorneys, Foster Prokureurs, to proceed with the prospecting in the existing quarry. Mr John Tait insisted that prospecting must occur at the place he pointed out. Dr Van Rijn apparently had a different position in mind but complied with Mr Tait's instructions.

Dr Van Rijn acknowledged that the excavation had been carried out without the necessary permit (specified in the NHRA s.35(4a)) from the South African Heritage Resources Agency (SAHRA). This section states that:

*(4) No person may, without a permit issued by the responsible heritage resources authority-*

*a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite.*

By excavating within the 10 m exclusion zone specified in section 2b of the NHRA the permit holder is in violation of this legislation. This infraction was reported to SAHRA on 21 December 2014. Investigation by these authorities is proceeding.



*Figure 5 - Blue cross spraypainted over rock markings on Outcrop 2.*

Dr Hollmann also noted that about 5 of the engravings and other markings on Outcrop 2 had been scratched, perhaps with a stone. Dr Hollmann also confirmed the presence of a blue 'X', probably spray-painted, on Outcrop 2 (Figure 5). This cross, which has been sprayed over Khoe-San rock markings was observed on a visit by Dr Hollmann to Outcrop 2 on 19 July 2014. The identity of the person who did this is not known.

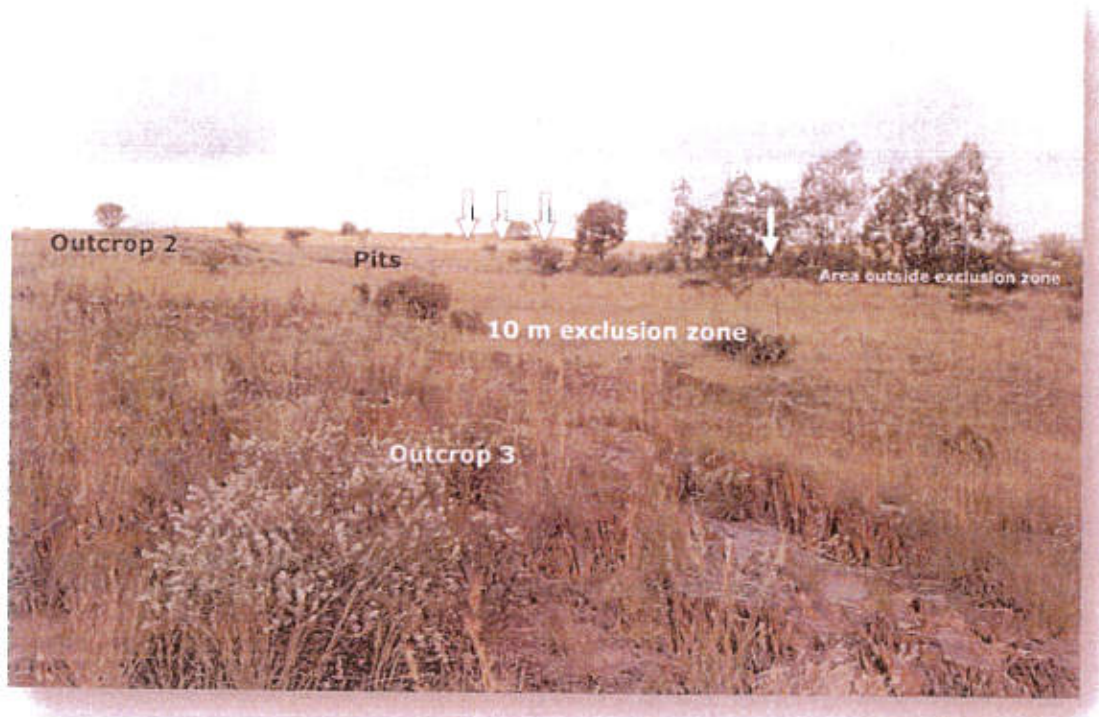
#### *5.2.2 Actions taken*

Discussions were held between Drs Hollmann, Van Rijn and Ms Foster-Smith during the on site visit.

Dr Hollmann pointed out to Dr van Rijn and Ms Foster-Smith the rock engravings and other markings on the three outcrops on portion 5 of Driekuul. Dr Hollmann also informed them that the area east of these three outcrops has historical value; it was a British encampment in the Anglo-Boer War (De Jager 2008: 116-124).

Dr Van Rijn expressed a willingness to take whatever action is necessary to protect the archaeological sites on portion 5 from any further damage and to rehabilitate the damage caused by

the excavations of 18 and 19th December 2014 as well as the earlier, adjacent excavation. He agreed to supply labour and material so that Dr Hollmann could immediately demarcate a 10 m exclusion zone around all three outcrops; this was carried out on the same day (Figure 6).



*Figure 6 - Installation of poles as a temporary measure to designate the 10 m exclusion zone around the Outcrops 1,2 & 3.*

Dr Van Rijn has undertaken further to provide and pay for the installation of fencing of a standard specified by Dr Hollmann, as well as appropriate signage. Agreement regarding the maintenance of the fence is to be negotiated between the landowner and Sino Rock.

## 6 RECOMMENDATIONS

The following recommendations are made with regards to the finds:



### 6.1 Construction of fence and gate

The construction of a fence around the three outcrops is recommended. The purpose of the fence is primarily to demarcate the rock art sites and to indicate the 10 m exclusion zone around them. The fence is not intended as an absolute barrier to entry but rather to indicate that the enclosed area is an archaeological site and that access is regulated. It is also important that the fencing does not spoil the visual and aesthetic properties of the site. The fence should however be so constructed that it will exclude livestock.

Access to the sites should be by means of a lockable gate. Access to the site is to be controlled by the landowner or designated representative. The landowner in whom the name, address and other contact details of visitors are recorded should keep a visitor's book.

It is recommended that the fence be approximately 1,2 m in height (as measured from the ground). The use of steel fencing materials (mesh and posts) should be avoided because of the high risk of theft. Instead the use of wooden posts (CCA treated NOT creosoted) and wire, or alternatively, uPVC (plastic) fencing is recommended. The risk of combustion of these materials should be considered. The vegetation in the vicinity of the proposed fence is sparse; it comprises a light cover of grass and widely dispersed shrublets. It is therefore a low fire risk. Because the fence is 10 metres away from the rock art the possibility of the wooden CCA treated poles damaging the rock art in case of fire is considered to be negligible. uPVC fencing is considered to be a low fire risk.

Dr Hollmann should be consulted about the final choice and design of the fencing before materials are purchased and before the fence is erected. It is also recommended that Dr Hollmann or another suitably qualified heritage specialist be present during the construction of the fence.

### 6.2 Signage

There should be a notice on or close to the gate that identifies the area as an archaeological site. The sign must state that permission to visit the site is obtainable from the landowner or her designated representative. Dr Hollmann should first be consulted about the dimensions and wording of the signage and the material to be used, as well as any SAHRA requirements before any materials are purchased.

### 6.3 Filling of excavation pits

Sino Rock has offered to fill in both the recently excavated pit and the adjoining pit. A permit will need to be obtained from SAHRA before this can be done. Dr Hollmann will approach SAHRA in this

regard. The excavation pits are to remain in their current condition until Dr Hollmann has consulted SAHRA.

## 7 REFERENCES

DE JAGER, P. 2008. *Die Korannafonteiners: Stories oor Ottosdal en sy mense*. Pretoria: Protea Boekhuis.

HOLLMANN, J.C. 2011. The cutting edge: Khoe-Swan rock-markings at the Gestoptefontein-Driekuil engraving complex, North West Province, South Africa. Unpublished doctorate submitted to the Department of Anthropology and Sociology, University of the Western Cape.

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## LEGISLATIVE REQUIREMENTS – TERMINOLOGY AND ASSESSMENT CRITERIA

**1 General principles**

In areas where there has not yet been a systematic survey to identify conservation worthy places, a permit is required to alter or demolish any structure older than 60 years. This will apply until a survey has been done and identified heritage resources are formally protected.

Archaeological and palaeontological sites, materials, and meteorites are the source of our understanding of the evolution of the earth, life on earth and the history of people. In the NHRA, permits are required to damage, destroy, alter, or disturb them. People who already possess material are required to register it. The management of heritage resources is integrated with environmental resources and this means that before development takes place heritage resources are assessed and, if necessary, rescued.

In addition to the formal protection of culturally significant graves, all graves, which are older than 60 years and are not in a formal cemetery (such as ancestral graves in rural areas), are protected. The legislation protects the interests of communities that have an interest in the graves: they should be consulted before any disturbance takes place. The graves of victims of conflict and those associated with the liberation struggle are to be identified, cared for, protected and memorials erected in their honour.

Anyone who intends to undertake a development must notify the heritage resource authority and if there is reason to believe that heritage resources will be affected, an impact assessment report must be compiled at the construction company's cost. Thus, the construction company will be able to proceed without uncertainty about whether work will have to be stopped if an archaeological or heritage resource is discovered.

According to the National Heritage Act (Act 25 of 1999 section 32) it is stated that:

An object or collection of objects, or a type of object or a list of objects, whether specific or generic, that is part of the national estate and the export of which SAHRA deems it necessary to control, may be declared a heritage object, including –

- objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects, meteorites and rare geological specimens;

- visual art objects;
- military objects;
- numismatic objects;
- objects of cultural and historical significance;
- objects to which oral traditions are attached and which are associated with living heritage;
- objects of scientific or technological interest;
- books, records, documents, photographic positives and negatives, graphic material, film or video or sound recordings, excluding those that are public records as defined in section 1 (xiv) of the National Archives of South Africa Act, 1996 ( Act No. 43 of 1996), or in a provincial law pertaining to records or archives; and
- any other prescribed category.

Under the National Heritage Resources Act (Act No. 25 of 1999), provisions are made that deal with, and offer protection to, all historic and pre-historic cultural remains, including graves and human remains.

## **2 Graves and cemeteries**

Graves younger than 60 years fall under Section 2(1) of the Removal of Graves and Dead Bodies Ordinance (Ordinance no. 7 of 1925) as well as the Human Tissues Act (Act 65 of 1983) and are under the jurisdiction of the National Department of Health and the relevant Provincial Department of Health and must be submitted for final approval to the Office of the relevant Provincial Premier. This function is usually delegated to the Provincial MEC for Local Government and Planning, or in some cases the MEC for Housing and Welfare. Authorisation for exhumation and reinterment must also be obtained from the relevant local or regional council where the grave is situated, as well as the relevant local or regional council to where the grave is being relocated. All local and regional provisions, laws and by-laws must also be adhered to. In order to handle and transport human remains, the institution conducting the relocation should be authorised under Section 24 of Act 65 of 1983 (Human Tissues Act).

Graves older than 60 years, but younger than 100 years, fall under Section 36 of Act 25 of 1999 (National Heritage Resources Act) as well as the Human Tissues Act (Act 65 of 1983) and are under the jurisdiction of the South African Heritage Resource Agency (SAHRA). The procedure for Consultation Regarding Burial Grounds and Graves (Section 36(5) of Act 25 of 1999) is applicable to graves older than 60 years that are situated outside a formal cemetery administrated by a local

authority. Graves in the category located inside a formal cemetery administrated by a local authority will also require the same authorisation as set out for graves younger than 60 years, over and above SAHRA authorisation.

If the grave is not situated inside a formal cemetery but is to be relocated to one, permission from the local authority is required and all regulations, laws and by-laws set by the cemetery authority must be adhered to.