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: DUHO MINING (PTY) LTD

TEL NO: 076 453 7871

FAX NO: 086 675 6889

POSTAL ADDRESS: PO Box 8936,
Edenglen
1613

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FILE REFERENCE NUMBER SAMRAD: NC 30/5/1/1/2/12019PR

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.

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.

PART A- SCOPE OF ASSSSMENT AND BASIC ASSESSMENT REPORT

1. CONTACT PERSON AND CORRESPONDENCE ADDRESS

i. **Details of**

i. **Details of the EAP**

NAME OF THE PRACTITIONER:	**THEVHA CONSULTING (PTY) LTD VENESSA NKOSI**
TEL NO	061 338 4994
E-MAIL ADDRESS	Vvnkosi1@gmail.com

ii. **Expertise of the EAP.**

1) **The qualifications of the EAP**

Bachelor of Science in Geology majoring in Environmental Management.

2) **Summary of the EAP's past experience**.

- **June 2015-2017 Environmental Assessment Practitioner at Information Decision Systems, Johannesburg, South Africa**
- **June 2017-Current Environmental Assessment Practitioner at Thevha Consulting (Pty) Ltd Johannesburg, South Africa**

PROJECT EXPERIENCE

Basic Assessment (Selected recent projects)

- Environmental Authorization for Kaalfontein pedestrian footbridge (2015)
- Environmental Authorization for Klipspruit pedestrian footbridge (2015)
- Environmental Authorization for Diepsloot pedestrian footbridge (2015)
- Environmental Authorization for the proposed development of Winnie Mandela Park (2016)
- Environmental Authorization for the proposed upgrade of the Giloolys Farm (2016)
- Environmental Authorisation for the proposed construction of the stormwater infrastructure in Cunningham Road

Water Use Licence applications

- Water Use licence Application (General Application) for Dassenhoek Footpaths and Roads (2015)
- Water Use licence Application (General Application) for Protea Footpaths and Roads (2015)
- Water Use licence Application (General Application) for Cliffdale Footpaths and Roads (2015)
- Water Use licence Application (General Application and Full licence) for Panakeni Footpaths and Roads (2015)
- Water Use licence Application (General Application) for Dark City Footpaths and Roads (2015)
- General Application for the proposed development of Winnie Mandela Park (2016)
- General Application for the proposed upgrade of the Giloolys Farm (2016)
- Water Use licence application for the proposed construction of the stormwater infrastructure in Cunningham Road (2017)

- Water use licence application for the rehabilitation of the BlueGill Dam Year: 2017

Environmental Management Programme

- Compilation of an Environmental Management Plan for the demolition of the Mahikeng Stadium (2015)
- Compilation of an Environmental Management Plan for the Isandovale Erosion Protection (2016)
- Environmental Management Plan for the Roodeplaat Dam(2016)

Environmental Auditing and Reporting

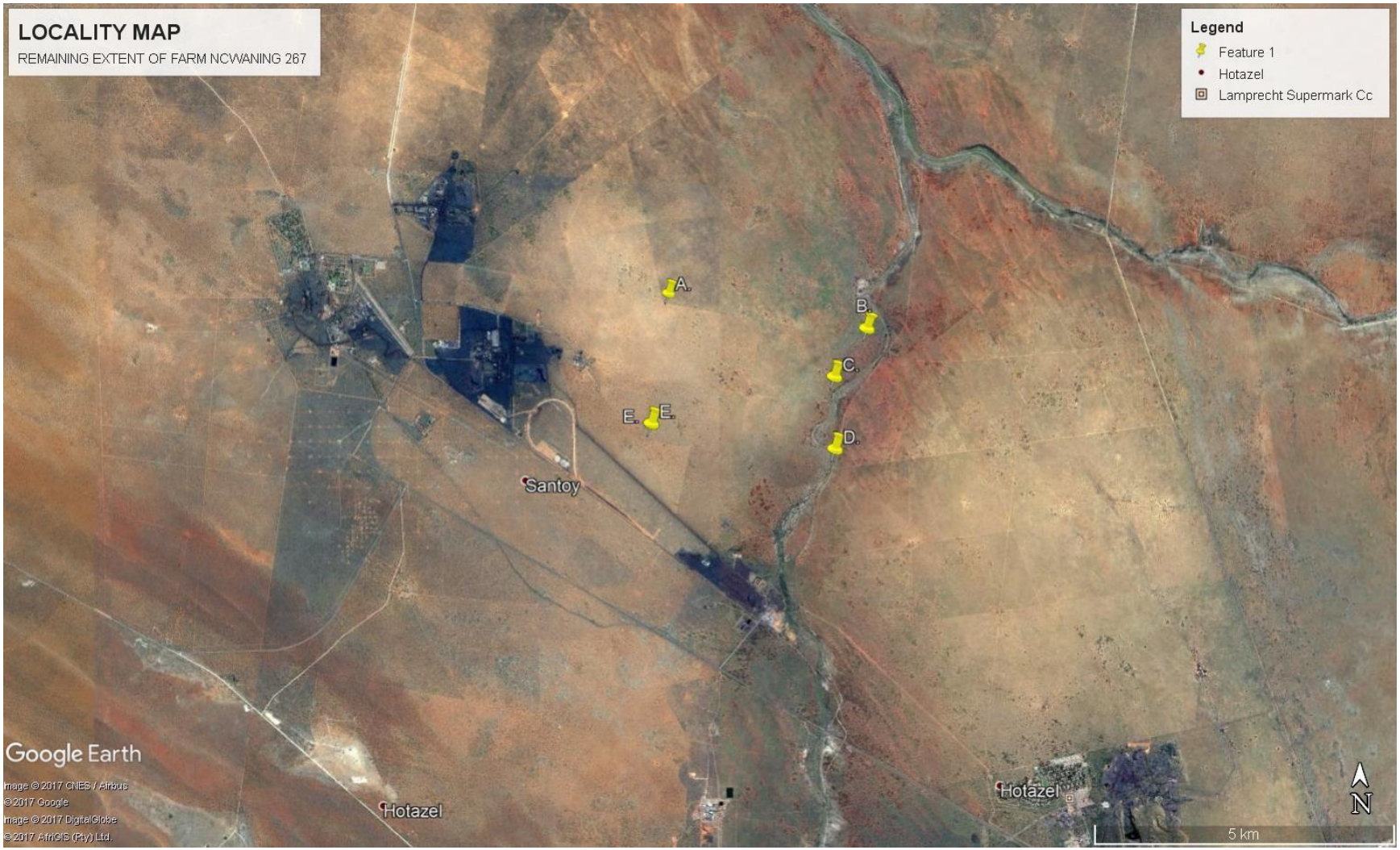
- Environmental Audits and compilation of Environmental Audit Reports for Eastleigh Rehabilitation (20152017)
- Environmental Audits and compilation of Environmental Audit Reports for Swartspruit Rehabilitation (2015)
- Environmental Audits and compilation of Environmental Audit Reports for Atlaspruit Rehabilitation (2015)
- Environmental Audits and compilation of Environmental Audit Reports for Oriel Stormwater Management (2016)
- Environmental Audits and compilation of Environmental Audit Reports for Isandovale Erosion Protection (2016)
- Environmental Control Officer for the realignment of the Joe Mzamane Road (2016-2017)
- Environmental Control Officer for the road upgrade of the D1944 Road (2017)

ii. **Location of the overall Activity.**

FARM NAME	**Remaining Extent of NCHWANING 267**
APPLICATION AREA (HA)	666.8 Ha
MAGISTERIAL DISTRICT	John Taolo Gaetsewe District Municipality Joe Morolong Local Municipality
DISTANCE AND DIRECTION FROM NEAREST TOWN	Approximately 60 km North West of Kuruman and 20 km from Hotazel
21 DIGIT SURVEYOR GENERAL CODE FOR EACH FARM PORTION	C04100000000026700000

iii. Locality map

(Show nearest town, scale not smaller than 1:250000).



iv. 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

a. Listed and specified activities

NAME OF ACTIVITY **(E.g. For prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route etc…etc…etc** **E.g. for mining,- excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc…etc…etc.)**	**Aerial extent of the Activity Ha or m²**	**LISTED ACTIVITY Mark with an X where applicable or affected.**	**APPLICABLE LISTING NOTICE (*GNR 544, GNR 545 or GNR 546)***
Establishment of a prospecting site inclusive of a drill site, ablution facilities and acess route.	666.8 Ha	X Activity 20 Listing Notice 1	GNR 327 Listing Notice 1 of EIA Regulations as amended in April 2017.

b. Description of the activities to be undertaken

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

Summary: Prospecting activities will be conducted in phases as discussed below. The level of work to be completed during each phase will depend on the results of the preceding phase. The prospecting operation will commence with review of all available literature from which a mapping programme will be designed.

Mapping will be followed by discovery drilling of a few Iron and Manganese core boreholes aimed at establishing the occurrence and depth of the mineralized ore body. Thereafter, a preliminary economic assessment will be conducted. Should the assessment positive, further drilling will be conducted to define the resource. The final stage will be a prefeasibility study to determine whether it will be economic to mine the resource.

PHASE 1

Literature review

Initial Phase 1 work will include the collection and interpretation of all available data and the compilation of a Geographic Information Systems (GIS) database. The information to be collected will include aerial photos, orthophotos, aeromagnetic data,

topo-cadastral maps, and geological maps, results of historic exploration programmes and any other published literature and maps. The desktop study will aid in compiling a preliminary geological model of the area to be utilized in the planning geological mapping and sighting of drill holes.

Mapping

Mapping will involve ground thruthing the occurrence of the ore body within the proposed prospecting area; as shown in published geological maps. The Main Zone will be the target zone as it overlies the Critical Zone in which the ore body occurs. Mapping is completed that meaningful structural and geological data may be derived from it and to confirm that the desktop study is accurate.

PHASE 2

Discovery drilling and sampling

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

Sample analysis

The drill core will be sampled where a mineralized section is intersected. The core will be split into two halves, with one half of the core taken for assay purposes and the other half being retained. Each sample will be measured and weighed and the sample lengths will be recorded before dispatch for assays at a South African National Accreditation System (SANAS) accredited laboratory. Samples will be analysed.

PHASE 3

Preliminary economic assessment

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

PHASE 4

Resource drilling and sampling

Subsequent to Phase 2 drilling, the results will be used to design a systematic drilling programme aimed at delineating a Mineral Resource on the Proposed Prospecting Area. The number of boreholes will depend greatly of the results of Phase 2 drilling; a minimum of five is planned thus far. This programme will be more focused more on parts on which the ore body were intersected.

PHASE 5

Pre-feasibility study

The pre-feasibility and feasibility studies are more detailed. By the time a decision is made to proceed with a prefeasibility study, a preliminary mineral resource report has been finalized and an ore body model demonstrating its shape, tonnes, and grade is

available. A resource cannot be converted to a reserve unless it backed up by at least a pre-feasibility study. Their results will show with more certainty whether the project is viable. At this point, the mineral resource, or a portion thereof, becomes a mineral reserve. The activities associated with the Prospecting Work Programme will be scheduled over a period of 2 years at a maximum inclusive of all phases. A detailed Prospecting Work Programme will be confirmed upon appointment of the contractor to conduct the proposed activity.

v. Policy and Legislative Context

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT (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)	**REFERENCE WHERE APPLIED**	**HOW DOES THIS DEVELOPMENT COMPLIY WITH AND RESPOND TO THE LEGISLATION AND POLICY CONTEXT.** (E.g. In terms of the National Water Act a Water Use License has/ has not been applied for)
Water Use License Application	National Water Act	An enquiry meeting was conducted with the Department of Water and Sanitation Northern Cape regarding the need for the Water Use License. The Department of Water and Sanitation requested for further information regarding the project and informed the EAP that a formal response will be communicated to the EAP regarding the enquiry and way forward thereof. Attendance register is attached. No response has been received from the Department of Water and Sanitation.

vi. 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).

Exploration work is very important in coming up with a decision to open a mine. The planned surface work including drilling is important to be done on rocks that have potential to host the minerals to be explored. The planned drilling positions are located on the rocks forming part of the Transvaal Supergroup and Ventersdorp Supergroup and it is important that the drill holes are located on these sites.

John Taolo Gaetsewe District Municipality (JTGDM) Spatial Development Framework, July 2017.

The main economic activity in the area is mining, followed by agriculture, tourism and retail. The JTGDM was the richest mining region in the Northern Cape until a decline in mining employment and the near extinction of the asbestos mining industry in the 1980s. Today, minerals mined include manganese ore, iron ore and tiger's eye.

Currently, the Northern Cape provincial government, in collaboration with the national government, municipalities, communities and private sector role-players in the area, is exploring the possibility of developing a mining corridor along the main mining deposits and activities in the region. This is part of the two Strategic Integrated Projects (SIPs) i.e. SIP 3 (South-Eastern node & corridor development – Increase manganese rail capacity in the Northern Cape) and SIP 5 (Saldanha-Northern Cape development corridor). The vision , existence of mineral resources and the demand for the mining sector within the district municipality has motivated the need for the proposed prospecting activities.

vii. Motivation for the overall preferred site, activities and technology alternative.

Geophysical surveys, trenching and drilling are the only major methods used in exploring for deposits of this type and also for resource definition and evaluation. The technology to be used cannot be replaced by any other methods thus these are the preferred activities**.**

viii. 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.

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;
(b) the type of activity to be undertaken;
(c) the design or layout of the activity;
(d) the technology to be used in the activity;
(e) the operational aspects of the activity; and
(f) the option of not implementing the activity.

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

The planned prospecting work including drilling is important to be done on rocks that have potential to host the minerals to be explored. In this area iron ore deposits occur in the Transvaal Super Group as preserved within the Griqualand West basin. The planned drilling positions will be located on the rocks forming part of the Transvaal Super Group and it is important that the drill holes are located on these sites to minimize the environmental footprint of the proposed activity. Detailed desktop study and geophysical surveys will refine the drill hole locations.

The type of activity to be undertaken

Prospecting activities will be conducted in phases as discussed above. The level of work to be completed during each phase will depend on the results of the preceding phase. The prospecting operation will commence with review of all available literature from which a mapping programme will be designed.

Mapping will be followed by discovery drilling of a few diamond core boreholes aimed at establishing the occurrence and depth of the mineralized ore body. Thereafter, a preliminary economic assessment will be conducted. Should the assessment positive, further drilling will be conducted to define the resource. The final stage will be a pre-feasibility study to determine whether it will be economic to mine the resource.

The design or layout of the activity;

Since exploration is temporary in nature no permanent structures will be constructed, Negotiations and agreements will be made with the farm owner to use any existing infrastructure like access roads and other things like workshops should there be a need for the infrastructure.

The technology to be used in the activity;

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

The operational aspects of the activity;

The applicant shall ensure that this Environmental Management Plan is provided to the Project Manager , Contractor and any other person or organization who may work on the site. DUHO Mining shall ensure that any person or organisation that works on the site complies with the requirements of this Environmental Management Plan. This includes the appointment of an independent Environmental Control Officer to monitor the prospecting activity as well as the rehabilitation phase of the activity.

The option of not implementing the activity

There is no option of not implementing activities. The proposed activities have very low environmental significance since these are short term activities. The probability of occurrence of an impact was determined and most of these activities can be controlled and impacts can be reduced or avoided. The probability was also used basing on looking at other prospecting activities of similar nature. Generally prospecting activities have low impact on the environment. The planned activities with negative impacts can be controlled and avoided or minimised.

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

A Newspaper advert was placed on the local newspaper Die Ghaap on the 25th August 2017. The newspaper advert aimed at inviting interested and affected parties to register as well as to provide insight to the proposed activity. Following confirmation of the acceptance of the prospecting right application, the EAP informed the public of the proposed prospecting right application through the issuing of Background Information Documents (BID) and placement of site notices within 100m of the affected farm (**Appendix C**). This includes the Assmang mines located in close vicinity to the study area. Although the EAP placed site notices within the northern section of the affected where the mines are located, the EAP had challenges with gaining access to the southern extent of the farm following consultation with the farmer about an alternative access route to the farm as the route the EAP had proposed to use was off limits due to security reasons raised by the farmer.

Following consultation with the farmer and placing site notices with the site. The EAP received response from the farm owner on the 06 December 2017. The response sheet is attached as an Appendix (**Appendix C**). Based on the response received by the EAP regarding concerns raised by the farm owner as an Interested And Affected Party (IAPs), the EAP advised the applicant that a public meeting was required in order to address the concerns raised by the IAPs and allow an opportunity for other parties to participate on the public participation process. An advert was published on the 25th January 2018 inviting all interested and affected parties to the public meeting scheduled for the 3rd February 2018.

The public meeting was conducted on the scheduled date and minutes of the meeting are attached thereof in Appendix C.

iii. Summary of issues raised by I&Aps

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 Comments Received	Issues raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated.
Northern Cape Department of Mineral Resources	15 December 2017	The Applicant is required to support the application with the rehabilitation financial provision in line with the proposed activities	Addressed in a letter from the applicant regarding the rehabilitation financial provision.	Part B: EMP as well as attached correspondence from DUHO Mining (Pty) Ltd
Northern Cape Department of Water Affairs	No comments received to date			
Northern Cape Department of Environmental Affairs	No comments received to date. EAP was informed that the emails used to send the BIDs are not working, the EAP will therefore share the report through post to the competent authority.			
Adjacent Community	No response received to date from adjacent community			
Land Owner	06 December 2017	• Access • Water Resources • Disturbance of farming activities • Rehabilitation • Security • Contents of the BID as well as local newspaper used for advertisment	The concerns were discussed during the public meeting and minutes thereof are attached.	Section (e) and Part B: EMP
Adjacent Mines	No comments received.			

Joe Morolong Local Municipality	No comments received.
Ward Councillor	No comments received.

iv. **The Environmental attributes associated with the alternatives.(The** environmental attributed described must include socio-economic, social, heritage, cultural, geographical, physical and biological aspects)

1. Baseline Environment

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

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

Climate

According to the JTGDM SDF , the area is known for its hot days and cold nights whereby the summer days are hot and the winter nights very cold. The area is very dry with an average yearly rainfall of approximately 189mm per annum.

Soils

The soils for the study area are very sandy with minimal agricultural development, mostly shallow on hard weathered rock as depicted by the image below.

Geology

The iron ore deposit is one of a number of genetically related high-grade haematite deposits. Superior-type banded iron formations ("BIF") of the Transvaal Supergroup crop out along the western margin of the Kaapvaal craton in the Northern Cape Province. These iron formations can be traced as a prominent range of hills in a broken arc for some 400km from Pomfret in the north, to Prieska in the south. Within this sub-region, iron ore and associated lithologies of the Transvaal and Olifantshoek Supergroups crop out intermittently along an arcuate belt for 60km.

Flora and Fauna

The area is dominated by Savannah biomes.

Surface Water

The study are falls within the Lower Orange Water Management Area which is generally characterised by its arid climate with minimal rainfall and drought conditions, with occasional severe flooding. The evaporation (including evapotranspiration) is as high as 3000mm per annum, which is generally more than the Mean Annual Rainfall (MAR). As a result, little usable surface runoff is generated over most of the area as a result of the extremely low and infrequent rainfall. Although the area is characterised by arid conditions, there is presence of non-perennial rivers and pans that are influenced by the hills and plains of the area. The NFEPA Rivers and Wetlands depict the area to have a stream that passes south of the farm. The affected stream from the view the EAP had with limited access appeared dry on the date of the site inspection mainly because it was during the dry season. Due to the weather conditions within the area, the EAP was informed by the farm owner that even the adjacent mines have challenges with the presence of water for human basic needs which consequently affects productivity. The image below depicts the area where the non-perennial stream is located.

Ground water

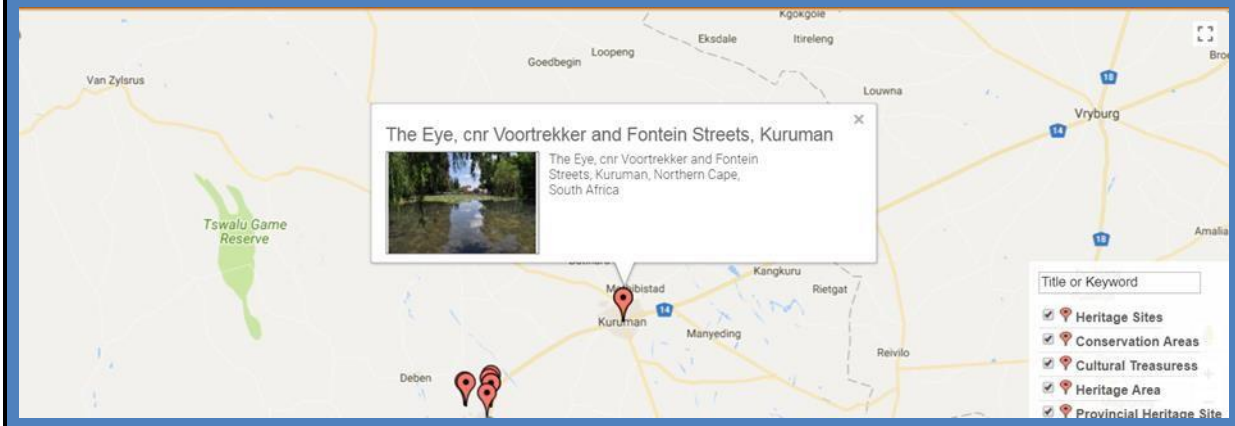
Through consultation with the adjacent farmer, the EAP was informed of the presence of boreholes as the only source of water for the mines and the residential areas in this vicinity . The location of these boreholes was not confirmed by the EAP.

Socio-Economic

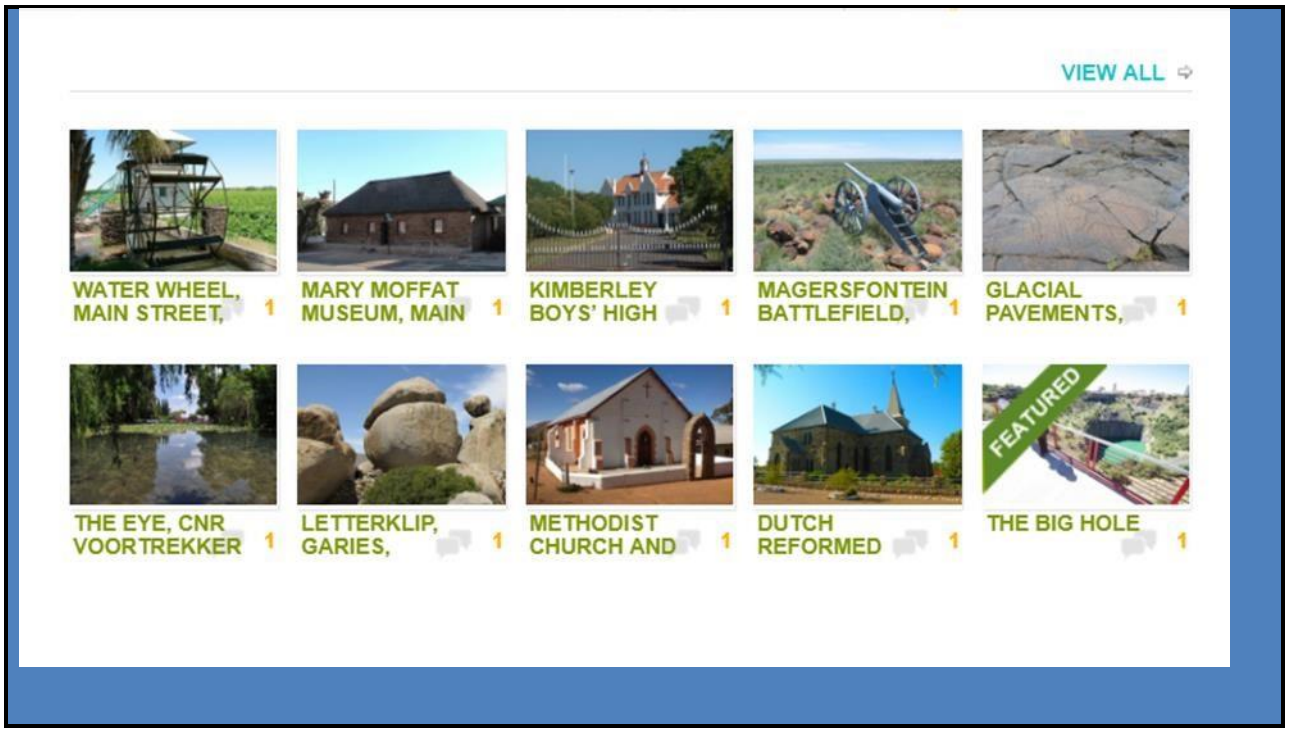
The area is dominated by mining activities which provide job opport unities for the residents of the Kuruman and Hotazel communities. These mining activities have increased the economic status of the area and contribution of the mines to the development of the town is noted.

Heritage

Consultation with the farm owner confirmed that no grave sites are located within the study area. No heritage sites are identified within the study area as per SAHRA database. Only The Eye is identified in Kuruman about 60km from the study area.



The image below depicts other heritage sites identified within the Northern Cape Province.



(b) Description of the current land uses.

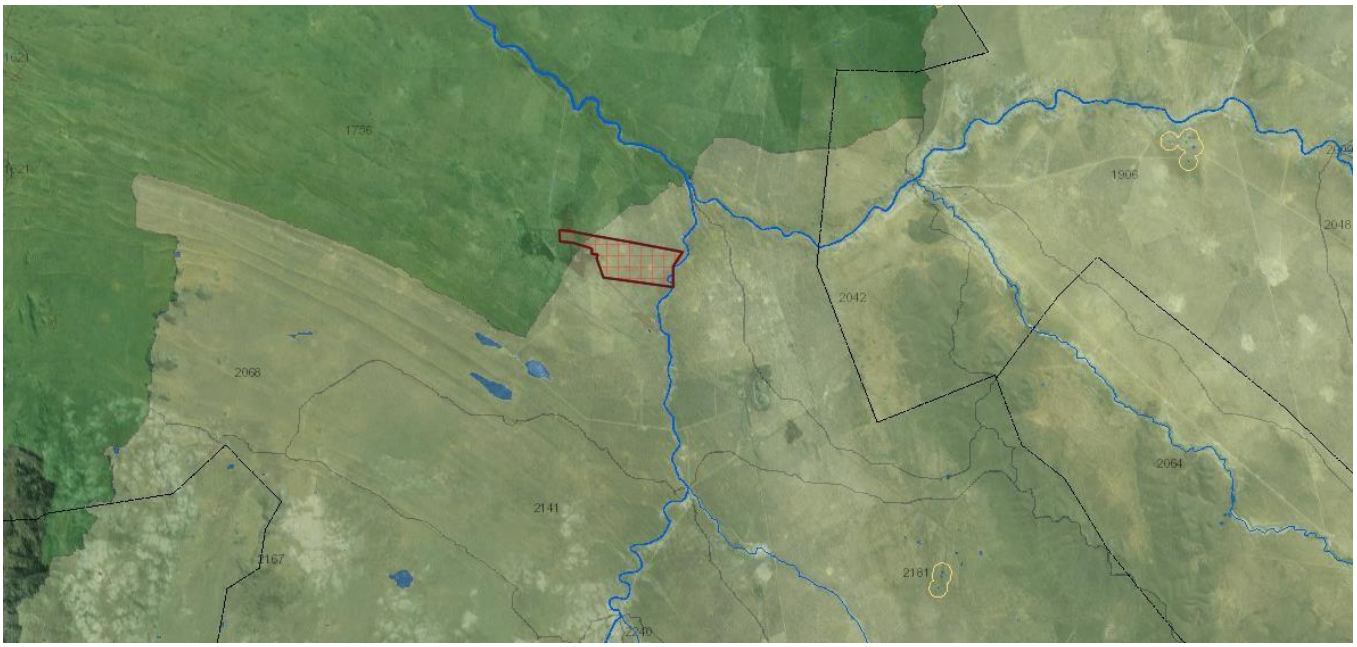
The area is dominated by mining activities and livestock farming. Black Rock, Ncwaning and Gloria Assmang mines are identified as the mines within the area, mining Manganese deposits. The proposed prospecting area is located in close vicinity to the Black Rock mine. The main land use within the farm is residential area and livestock farming.

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

There were no specific environmental features that were noted on site. There is a presence of a non-perennial river on site that has been reported dry for the period of the year. Due to the absence of Geographic information regarding the Conservation Status i.e. Ecological Status of the area, the EAP could not identify the environmental sensitivity of the area. Specialist studies are recommended during the mining right application phase of the development in the event that the proposed prospecting application is approved.

(d) Environmental and current land use map.

The map below depicts the wetlands and rivers present within the extent of the study area. The area is currently used for farming. Adjacent to the affected are mining activities under the ownership of Assmang. The blue lines and dashed blue areas are the watercourse depicted within the area. The brown-green area being the dominating Savanna Biome as the dominant vegetation.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(e) Impacts and risks identified including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts

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

Element	Aspects and Impacts	Mitigation	Impact (post-mitigation)			
			Extent	Duration	Probability	Level of Significance
Soils	There will be minor disturbance of the soil at the proposed drill sites.	Rehabilitate each site as soon as the drilling is completed.	**Medium**	Short Term	Definite	**Medium**
Vegetation	The potential impact of the proposed prospecting on the vegetation would occur at proposed drilling sites and the access routes used to get to these sites. This impact will affect the grazing of the area and as such has been identified as a concern by the farm owner.	The EAP recommends appointment of a biodiversity specialist to provide a rehabilitation plan for the proposed activity which will include mitigation measures with regards to the proposed prospecting activity on the vegetation. Environmental awareness training must be conducted. Drilling contractor must comply with all EMP procedures. Drilling sites to be located in disturbed areas wherever possible. The prospecting area including drill sites and access routes must be rehabilitated to	**Medium**	Short Term	Definite	**Medium**

Animal life	Animal life will be affected in the immediate vicinity of the drilling rig. It is anticipated that the prospecting activities inclusive of noise, loss of vegetation and general activity will keep the animal life away from the site while the prospecting is ongoing.	The proposed biodiversity rehabilitation plan is to accommodate the impact associated with animal life especially the livestock. This should include considering the possibility of moving livestock to another accommodative location until all prospecting activities are completed and the site is rehabilitated to its original state to the satisfaction of the appointed independent ECO and DMR. Environmental Awareness training for the drilling contractual staff. If any animals are encountered they must not be killed or injured, but should rather be removed or chased away from the site. All gates must be kept closed.	**Medium**	Short Term	Definite	**Medium**
Surface	There is a non-perennial river	The applicant must provide	**Medium**	Short term	Definite	**Low**

Water	south of the site. In the event that the area experiences rain, the water within the channel is not to be used for any prospecting activities.	suitable drinking water for the contractual staff on site as well as water for drilling purposes. Water for consumption and drilling must be obtained from Commercial suppliers and Service Level Agreements must be organized accordingly with the service provider prior to the commencement of the prospecting activities.				
Ground water	No groundwater will be used or abstracted during the prospecting operations.	Implement EMP procedures through the compilation of a prospecting plan prior to the prospecting activities to minimise contamination of the groundwater during drilling activities. These should be discussed and approved by the independent Environmental Control Officer.	**Low**	Short Term	Possible	**Low**

Air Quality	Dust may be created during the	Implement EMP procedures to	**Low**	Short	Probable	**Low**

	prospecting process by vehicles on dirt roads and during drilling operations.	minimise the generation of dust. Ensure vehicles drive slowly. Dust suppression measures must be implemented through the use of water tanker on the affected areas. The speed of the vehicles must be limited to 40km/hr to reduce the effect of dust.		Term		
Noise	Noise will be created by the drilling rig and vehicles. However, this is a sparsely populated rural area dominated by mining activities that produce relatively large amounts of noise.	Ensure vehicles and equipment is maintained. Silencers must be fitted on all engines. A 40 km/hr speed must be maintained on site to reduce the effect of noise. The contractor is to control and prevent unnecessary noise by the contractual staff as well as notify the adjacent properties of the proposed working hours . A complaints register must be kept of site for any complaints raised by the community.	**Low**	Short Term	Definite	**Low**
Cultural Heritage	There are no known important heritage resources on the site.	If any heritage resources, including fossils, graves or human remains, are encountered these must be reported to the authorities and work is to stop immediately.	**Low**	Short Term	Possible	**Low**

Visual	The prospecting activity will not change the visual character of the property.	Rehabilitate drill sites and access tracks.	**Low**	Short Term	Definite	**Low**

Socio- economic	The effect of this prospecting activity for employment and socio-economic regime would be positive, but very limited in extent and duration. If a significant resource is delineated this could have a significant positive socio-economic impact, however a mining right application would be subject to a separate EIA process.	Environmental awareness training must be provided to all workers. Maximize procurement of goods and services from local providers.	**Low**	Short Term	Definite	**Low (positive)**
Social Neighbours	The prospecting operations must not impact on the mining activities and farming activities due to the distance and low intensity of the prospecting operation. In the event of the relocation of livestock, this must be conducted in agreement with the farm owner.	Ensure compliance with the EMP . Ensure workers must not trespass onto neighbour's property and affected property through the implementation of effective security measures in agreement with the farm owner. Maintain communications and keep a "Complaints Register" on site.	**Medium**	Short Term	Possible	**Low**

Solid Waste	All solid waste must be transported to the nearest municipal waste site. Service Level Agreements must be obtained. Any industrial (hazardous) waste must be transported to a suitable waste disposal facility.	Ensure compliance with the EMP. Include in environmental awareness training regarding waste management.	Medium	Short Term	Definite	Low
Traffic and access	Prospecting activities will generate very limited additional traffic. Prospecting vehicles are to access the property via existing roads and tracks only. In the event that a new access route is to established, this must be discussed and in agreement with the farm owner and adjacent properties.	Comply with traffic regulations. Keep to speed limits of 40km/hr. Ensure compliance with the EMP. Rehabilitate new access routes established.	Low	Short Term	Definite	Low
Cumulative Impacts	There are no significant cumulative impacts associated with this prospecting programme.	No mitigation required for prospecting.	**N/A**	**N/A**	**N/A**	**N/A**

(f) **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)

METHODOLOGY OF IMPACT ASSESSMENT

The process of determining impact significance should ideally involve a process of determining the acceptability of a predicted impact to society. Making this process explicit and open to public comment and input would be an improvement of the BA process.

The following methodology has used to conduct the impact assessment for the proposed prospecting and rehabilitation of prospecting area:

Assessment of Potential Impacts

The assessment of impact significance is based on the following conventions:

Nature of Impact
This reviews the type of effect that a proposed activity will have on the environment and should include "what will be affected and how?"

Extent
This criterion involved the assessment of impacts as to whether the impacts are either limited in extent or affect a wide area or group of people. For example, impacts can either be site-specific, local, regional, national or international.

Duration
This criterion aims to assess whether the duration of the impact will be short term (0 to 5 years), medium term (5 to 15years), long term (more than 15 years, with the impact ceasing after the operational life of the development) or considered permanent. For long term impacts, a high rating was issued, and a medium rating for impacts that could be reversible over time and low rating for impacts that could be reversible quickly.

Intensity
The intensity of the impacts was assessed as to whether the intensity of the impact is high, medium, low or has no impact in terms of its potential for causing negative or positive effects. The study attempted to quantify the magnitude of the impacts.

Mitigatory Potential

The mitigatory criterion aims at determining the potential to mitigate the negative impacts and enhance the positive impacts should be determined. This criterion accommodates all impacts including those that do not have mitigation measures. A high rating was given to impacts that have capability of mitigation of negative effects, medium for impacts that could be mitigated to a degree without providing a guarantee of the prevention of negative impacts and a low rating for impacts that have no mitigation measures.

Probability
This considers the likelihood of the impact occurring and should be described as:

- Improbable (little or no chance of occurring);
- Probable (<50% chance of occurring);
- Highly probable (50 – 90% chance of occurring); or Definite (>90% chance of occurring).

Reversibility
This considers the degree to which the adverse environmental impacts are reversible or irreversible. For example, an impact will be described as low should the impact have little chance of being rectified to correct environmental impacts. On the other hand, an impact such as the nuisance factor caused by noise impacts from wind turbines can be considered to be highly reversible at the end of the project lifespan. The assessment of the reversibility of potential impacts is based on the following terms:

- **High** - impacts on the environment at the end of the operational life cycle are highly reversible;
- **Moderate** - impacts on the environment at the end of the operational life cycle are reasonably reversible;
- **Low** - impacts on the environment at the end of the operational life cycle are slightly reversible; or

- Non-reversible - impacts on the environment at the end of the operational life cycle are not reversible and are consequently permanent.

Irreplaceability

This reviews the extent to which an environmental resource is replaceable or irreplaceable.
For example, if the proposed project will be undertaken on land that is already transformed and degraded, this will yield a low irreplaceability score; however, should a proposed development destroy unique wetland systems for example, these may be considered irreplaceable and thus be described as high. The assessment of the degree to which the impact causes irreplaceable loss of resources is based on the following terms:

- High irreplaceability of resources (this is the least favorable assessment for the environment); Moderate irreplaceability of resources;
- Low irreplaceability of resources; or
- Resources are replaceable (this is the most favorable assessment for the environment).

Therefore an impact is;

Consequence = Severity + Spatial Scale + Duration

Whereas probability is calculated as:

Probability =Frequency of Activity + Frequency of Incident +Legal Issues + Detection.

Significance is calculated as:

Impact= Consequence X likelihood.

Status of the impact: A description as to whether the impact will be:

- Positive (environment overall benefits from impact); Negative (environment overall adversely affected); or Neutral (environment overall not affected).

The resultant assessment of the impacts using the above criterion is described on the table below from high to low.

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

Management Actions:

- Where negative impacts are identified, mitigatory measures will be identified to avoid or reduce negative impacts. Where no mitigatory measures are possible this will be stated.
- Where positive impacts are identified, augmentation measures will be identified to potentially enhance these.
  - Quantifiable standards for measuring and monitoring mitigatory measures and enhancements will be set.
- This will include a programme for monitoring and reviewing the recommendations to ensure their ongoing effectiveness.

Monitoring:
The EAP will recommend monitoring requirements to assess the effectiveness of mitigation actions, indicating what actions are required, by whom, and the timing and frequency thereof.

Mitigation:

The objective of mitigation is to firstly avoid and minimise impacts where possible and where these cannot be completely avoided, to compensate for the negative impacts of the development on the receiving environment and to maximize re-vegetation and rehabilitation of disturbed areas. For each impact identified, appropriate mitigation measures to reduce or otherwise avoid the potentially negative impacts are suggested. All impacts are assessed without mitigation and with the mitigation measures as suggested.

(g) 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)

The positive impacts of the activities are the creation of employment which is really required in the region as discussed in the district municipality SDF. The proposed activities have very low significance since these are short term activities. The probability of occurrence of an impact was determined and most of these activities can be controlled and impacts can be reduced or avoided. The probability was also used based on looking at other prospecting activities of similar nature. Generally prospecting activities have low impact on the environment. The planned activities negative impacts can be controlled and avoided or minimised therefore the layout does not require revision. Changes in plan will be discussed with the farmer and approvals will be signed.

(h) The possible mitigation measures that could be applied and the level of risk

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

This section contains guidelines, operating procedures and rehabilitation/pollution control requirements which will be binding on the holder of the prospecting right after approval of the Environmental Management Plan. It is essential that this portion be carefully studied, understood, implemented and adhered to at all time. The applicant must ensure that this Environmental Management Plan is provided to the Project Manager and any other person or organization who may work on the site. DUHO Mining must ensure that any person or organization that works on the site complies with the requirements of this Environmental Management Plan.

SITE ESTABLISHMENT AND CONSTRUCTION PHASE			
Potential Impact Description	**Significance Rating (Negative/Positive)**	**Mitigation Measure**	**Significance Rating after mitigation measures**

Loss of vegetation	Negative	• Development planning must ensure minimum loss of vegetation and disturbance is restricted to within the minimum and designated areas only through the compilation of a rehabilitation plan by an experienced biodiversity specialist. • Vegetate and irrigate open areas to limit erosion, but take care not to promote erosion by irrigating. • Removal of vegetation during prospecting must be minimized to reduce the risk of excessive open areas occurring. • Adhere to existing roads and access routes as much as possible. • Protected plant or animal species encountered must be managed in accordance with an accepted management plan for these species.	Low
Impacts on Animal Life	Negative	• A Biodiversity Rehabilitation Plan must be compiled in order to provide specific livestock migration and grazing capability of the area due to the prospecting activities. This plan is to be compiled in participation with the farm owner.	Medium-High
Soil Erosion of exposed soil	Negative	• Removal of topsoil must be done systematically, only clearing the necessary areas at a time. The topsoil stockpiles must be vegetated as soon as possible to prevent erosion, which might cause siltation of the water resources. • Erosion berms are to be put in place where there is a high risk of erosion.	Low
Dust emissions	Negative	• The applicant must make use of dust suppression measures for an example water tanks.	Low
Soil and Water Resources Contamination	Negative	• Prevent any spills from occurring; if a spill occurs it is to be cleaned up immediately and reported to the appropriate authorities. • All vehicles are to be serviced in a correctly bunded area or at an off-site location. • Ensure that spillage control kits are available during transport and on storage sites in case of any accidental leakages of spillages, which can then be cleared immediately. • The temporary storage facilities of fuel, lubricants and explosives must be a hard park, roofed and bunded facility. This will prevent contamination of soils and the possibility of contamination of the surface water resources. • Machinery must be maintained properly. Diesel and other chemicals must be handled appropriately. • Refueling protocols must be followed to ensure no diesel is spilled during filling.	Low

Destruction of Archaeology and heritage artefacts	Negative		Should any features of heritage be identified on site, these must not be disturbed. They should be safeguarded, preferably in situ, and immediately reported to a Heritage specialist and/or SAHRA.	Low
Impact on Health, And Safety Of Workers	Negative		Training of workers in the correct use of the machinery and/or equipment so as to avoid incidents. Workers to wear Personal Protective Equipment (PPE). Hazardous material must be correctly labeled and handled in a safe manner.	Low
Noise	Negative		The noise created by the proposed activity is not expected to be problematic. If required, noise reduction measures will have to be implemented in compliance with Noise	Low
			standards and Regulations. No sound amplification equipment to be used on site, except in emergency situations. Limit vehicles travelling to and from the site to minimise traffic noise to the surrounding environment. Limit construction activities to day time hours. Prospecting related machines and vehicles must be serviced on a regular basis to ensure noise suppression mechanisms are effective. Activities that will generate the most noise must be limited to during the day, where viable, in order minimise disturbance. Equipment that is not in use should be switched off. A complaints register must be kept on site, with records of complaints received and manner in which the complaint was addressed.	

a. Motivation where no alternatives sites were considered.

Since exploration is temporary in nature no permanent structures will be constructed, Negotiations and agreements will be made with the farm owner to use any existing Infrastructure like accommodation for the explorers, access roads and other things like Workshops.

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

Since exploration is temporary in nature no permanent structures will be constructed, Negotiations and agreements will be made with the farm owner to use any existing Infrastructure like accommodation for the explorers, access roads and other things like Workshops.

c. **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 erer identified during the environmental impact assessment process and (ii) an assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures.)**

Criteria to Consider when Determining Severity of impacts

The ranking of impacts / determination of significance is estimated using two criteria, namely Consequence and Probability. These consider the contributing factors / criteria listed in the legislation. The definitions of each are provided below.

The **Consequence** of an impact resulting from an aspect is expressed as a combination of

Nature of impact: An indication of the extent of the damage (negative impacts) or benefit (positive impacts) the impact inflicts on natural, cultural, and/or social functions (environment).

Extent of impact: A spatial indication of the area impacted (i.e. how far from activity the impact is realized).

Duration of impact: A temporal indication of the how long the effects of the impact will persist, assuming the activity creating the impact ceases. For example, the impact of noise is short lived (impact ceases when activity ceases) whereas the impact of removing topsoil exists for a much longer period of time.
Frequency of the impact occurring: An indication of how often an aspect, as a result of a particular activity, is likely to occur. Note that this does not assess how often the impact occurs. It applies only to the aspect.

d. **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 **(E.g. For prospecting -** drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route **etc…etc…etc** **E.g. For mining**,- excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc…etc…etc.)	**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, postclosure)	**SIGNIFICANCE** if not mitigated	**MITIGATION TYPE** (modify, remedy, control, or stop) throug h (E.g. noise control measures, storm- water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc) E.g . Modify through alternative method. Control through noise control Control through management and monitoring through rehabilitation...	**SIGNIFICANCE** if mitigated
Drilling	Noise	Animals and people	Prospecting Phase 2 and 4	Medium	Noise Control. Ensure vehicles and equipment is maintained. Silencers must be fitted on all engines. Establishment and implementation of a Biodiversity Rehabilitation Plan. Rehabilitation of the drilled areas.	Low

Driving, trenching	Air pollution	Animals, people, Environment	Prospecting Phase 2 and 4	Low	Establish EMP procedures to minimise the generation of dust. Ensure vehicles drive at 40km/hr. Comply with traffic regulations. Keep to speed limits. Ensure compliance with the EMP.	Low
Drilling	Ground water pollution	Animals, People and water resource	Prospecting Phase 2 and 4	Medium	Establish EMP procedures to minimise contamination.	Low
Prospecting Area	Solid Waste	Animals, people and environment	Prospecting Phase 2 and 4	Low	Ensure compliance with the EMP. Include in environmental awareness training. Workers must not stay overnight at the site.	Low
Drilling, and other prospecting activities	Impact on vegetation	Vegetation and animals	Prospecting Phase 2 and 4	Medium	Biodiversity Rehabilitation plan must be compiled prior to the commencement of the prospecting activities and approved by the competent authority. Rehabilitation is compulsory on the prospected area through plantation of indigenous plants.	Low
Drilling, and other prospecting activities	Impact on animals	Animals	Prospecting Phase 2 and 4	Medium	Biodiversity Rehabilitation plan must be compiled to accommodate the possibility of the migration of livestock and the effects on the grazing capability of the area.	Low

Access Routes establishment, prospecting activities	Security	People and property	All phases	Medium	The applicant must provide practical security measures to prevent loss of property and to provide safety to the adjacent properties. The contractual staff must undergo security clearance to provide assurity to the affected parties for safety.	Low
Prospecting Activities	Labour Issues	People	All phases	Medium	The contractor must liaise with the Community Liaison Officer in terms of employment during the prospecting activities. Local labor resources must be used as far as possible. The contractor must ensure that the farm owner is not affected by any labour related matters arising from the proposed prospecting activities.	

e. Summary of specialist reports.

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

LIST OF STUDIES UNDERTAKEN	RECOMMENDATIONS OF SPECIALIST REPORTS	SPECIALIST RECOMMENDATIONS THAT HAVE BEEN INCLUDED IN THE EIA REPORT (Mark with an X where applicable)	REFERENCE TO APPLICABLE SECTION OF REPORT WHERE SPECIALIST RECOMMENDATIONS HAVE BEEN INCLUDED.
No Specialists Conducted	Although no Specialist Reports were conducted, it is highly recommended by the EAP that a Biodiversity Rehabilitation Plan to be compiled prior to the prospecting activities.		
Phase 1 Heritage Impact Assessment	Although the EAP recommended the requires specialist study as per DMR letter dated 15 December 2017. The applicant motivated that the study is not applicable as there are no heritage resources on site. It is therefore the recommendation of the EAP that the specialist be conducted nonetheless and should form part of the condition prior to the commencement of the prospecting activities.		

f. Environmental impact statement

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

The proposed prospecting operation will affect the existing livestock farming land use due to the possible migration of livestock and effect on grazing capability of the area. No other land uses were identified to be impacted by the proposed activity. The following actions are subject to the proposed mitigation measures and require monitoring:

- The clearing of vegetation
- Migration of livestock
- The storage of hydrocarbon based materials on site
- On-site waste management
- The establishment of roads/tracks
- The removal of storage and soil
- The traversing of vehicles through populated areas within the prospecting area Groundwater: Monitor the water quality of the boreholes
- Security

Surface Water: Monitor water quality of the stream and stream flow Monitoring of the required mitigation measures is to take place on site daily by the site geologist. Annual monitoring audits are to take place by an appointed independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMR.

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 .Attached as **Appendix B**

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

Proposed Activity	**Potential Impacts**
Desktop Study	No impacts on site
Ground Geophysics, soil geochemistry and trenching	Low impacts from short-term staff and vehicle access to the site, interfering with the animal grazing paddocks managing fences and gates Livestock falling into dug trenches Creation of employment
Drilling	Access tracks Disturbance of vegetation and topsoil Oil & fuel spills Dust & noise Labor issues Litter Possible discovery of fossils Creation of employment
Sample processing / evaluation / decision making	No impacts on site.
Rehabilitation	Replacing topsoil, covering with brushwood etc

The proposed activities have very low significance since these are short term activities. The probability of occurrence of an impact was determined and most of these activities can be controlled and impacts can be reduced or avoided.

Generally prospecting activities have low impact on the environment. The planned activities negative impacts can be controlled and avoided or minimized therefore the layout does not require revision. Mitigation measures will be used to control any potential impact.

g. 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.

Monitoring of the required mitigation measures is to take place on site daily by the site geologist and Environmental Control Officer. Annual monitoring audits must take place by an appointed independent Environmental Control Officer to compile the required annual environmental compliance report required by the DMR

The Company must operate on the principle that "prevention is better than cure" and so will institute procedures to reduce the risk of emergencies taking place. These must include ensuring that all contracts specify that the contractor is required to comply with all the environmental measures specified in this EMP, environmental awareness training, ongoing risk assessment and emergency preparedness.

All employees must have the telephone numbers of emergency services, including the local ambulance and firefighting service. All employees must be made aware of procedures to be followed during the environmental awareness training course.

h. Aspects for inclusion as conditions of Authorisation.

Any aspects which must be made conditions of the Environmental Authorisation

The applicant must be subject to the compilation of a Biodiversity Rehabilitation Plan to accommodate the migration of livestock and effects on the grazing capabilities.

The applicant must conduct the Phase 1 Heritage Impact Assessment as required by the Department of Mineral Resources prior to the commencement of prospecting activities. These results must be submitted to the competent authority and should the be a need to amend the Environmental Management Plan, the applicant is expected to amend the EMP.

The company must comply with all environmental legislation. Specific aspects to be adhered to from environmental legislation include; National Environmental Management Act, Act 107 of 1998 (NEMA), Minerals and Petroleum Resources Development Act, Act 28 of 2002 (MPRDA), National Water Act, Act36 of 1998 (NWA) and Conservation of Agricultural Resources Act, Act No. 43 of 1983 (CARA).

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

(Which relate to the assessment and mitigation measures proposed)

There are obvious gaps in knowledge regarding the possible site specific mitigation measures with regards to the migration of livestock to allow for prospecting activities to take place. As such, the EAP as recommended above, recommends the compilation of a Biodiversity Plan. Apart from that, it is the opinion of the EAP that all mitigation measures are possible and practical. In the event that the competent authority requires further assessment, these must be conducted by the applicant.

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

ix. Reasons why the activity should be authorized or not.

All activities should be authorized in condition to the above recommendations. Monitoring of the required mitigation measures must take place on site daily by the site geologist and bi-monthly by the Environmental Control Officer. In addition, annual monitoring audits are to take place by an appointed independent environmental control officer to compile the required annual environmental compliance report required by the DMR.

ii) Conditions that must be included in the authorisation

The applicant must be subject to the compilation of a Biodiversity Rehabilitation Plan to accommodate the migration of livestock and effects on the grazing capabilities.

The applicant must conduct the Phase 1 Heritage Impact Assessment as required by the Department of Mineral Resources prior to the commencement of prospecting activities. These results must be submitted to the competent authority and should the be a need to amend the Environmental Management Plan, the applicant is expected to amend the EMP.

The applicant must appoint an independent Environmental Control Officer to monitor prospecting activities as well as rehabilitation activities. Reports must be submitted to the competent authority monthly for the duration of the activity.

The company should comply with all environmental legislation. Specific aspects to be adhered to from environmental legislation include; National Environmental Management Act, Act 107 of 1998 (NEMA), Minerals and Petroleum Resources Development Act, Act 28 of 2002 (MPRDA), National Water Act, Act36 of 1998 (NWA) and Conservation of Agricultural Resources Act, Act No. 43 of 1983 (CARA)

k. Period for which the Environmental Authorisation is required.

5 years minimum

l. 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.

Confirmed

m. Financial Provision

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

The quantum of the financial provision required is therefore: **R 52,726.99**

i) Explain how the aforesaid amount was derived.

Table attached on Section B

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 Mining work programme, Financial and Technical Competence Report or Prospecting Work Programme as the case may be).

The amount is anticipated to be an operating cost and provided for in the Prospecting Work Programme.

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**

Current land uses inside the prospecting area, such as grazing and farming are to be temporarily impacted through the presence of the fenced areas that drill rigs will operate within. These are however, small areas, approximately 10m x10m in total. These areas will be rehabilitated post drilling activities and the areas will once again become available for grazing.

(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)(*i*)(vi) and (vii) of that Act, attach the investigation report as **Appendix 2.19.2** and confirm that the applicable mitigation is reflected in 2.5.3; 2.11.6.and 2.12.herein).

Whilst no heritage resources have been identified within the proposed prospecting area care must be taken to avoid any sensitive heritage resources that may otherwise be identified during the prospecting through the conduction of the Heritage Impact Assessment prior to the commencement of the activities. Where graves or fossils are identified proposed boreholes must be moved to avoid features of this type. If fossils or graves are discovered, the relevant authorities must be immediately notified and drilling must be stopped in this area. The area does not have any protected areas, threatened ecosystems or critical biodiversity, owing to the small scale of the prospecting activity, the only potential negative impact is related to the proposed borehole sites that will need to be cleared and possibly access roads to some of these sites. These should be placed on previously disturbed land or tracks. Any natural vegetation should be avoided. The location of the boreholes must be done in consultation with a botanist.

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)**.

N/A

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).

Details of EAP are included in PART A section 1(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)

Covered In Part A SECTION (1) (h).

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)

Map attached in Appendix B

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)

The following section details the goals and objectives that DUHO MINING will aim to achieve. It includes both a commitment to ensure legal compliance and then highlights the goals and objective for those impacts which are deemed most significant for exploration.

Environmental Legislation

To comply with all environmental legislation. Specific aspects to be adhered to from environmental legislation include;

National Environmental Management Act, Act 107 of 1998 (NEMA)

As the NEMA is the cornerstone of all environmental legislation, the management measures implemented by DUHO MINING will strive to adhere to the principles of NEMA:

- That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimized and remedied;
- that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimized and remedied;
- that the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimized and mitigated
- that waste is avoided, or where it cannot be altogether avoided, minimized and reused or recycled where possible and otherwise disposed of in a responsible manner;
- that the use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource;
- that a risk cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and
- That negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimized and remedied.

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

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

It is anticipated that drilling will require, approximately 10 000 Liters to be confirmed upon appointment of a drilling service provider. The provision of water must be arranged with the a water supply service provider through the drilling contractor. In the event that water is to be abstracted from the boreholes, the Department of Water and Sanitation should be informed and the water use licence application must be lodged in terms of Section 21 a.

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

The water use licence has not been applied for.

iv. **Impacts to be mitigated in their respective phases Measures to rehabilitate the environment affected by the undertaking of any listed activity**

ACTIVITIES	PHASE	SIZE AND SCALE of disturbanc	MITIGATION MEASURES	COMPLIANCE STANDARDS	WITH	TIME PERIOD FOR IMPLEMENTATION
(E.g. For prospecting - drill site, site camp, ablution (Of activity equipment storage, sample w ill take place. (volu access tonnages comply with any prescribed Planning and hectares this must take place at excavations, blasting, Pre- to dams, Loading, hauling and	operation **e** (describe how each of the mes, recommendations in herein will remedy the cause of pollution or recommendations herein will implemented when required. Construction,	Demescasrureibe st he in timethe per enviod irwonhmeen nthtae l facility, accommodation, in which (A description of how each of the management programme must be storage, site office, pollutants) environmental management With regard to Rehabilitation **E.g.** been identified by Competent the earliest opportunity. .With Rehabilitation, therefore state	**For mining**,- design, or m²) standards or practices that have specifically stockpiles, discard dumps or Construction' Authorities) regards		

transport, Water supply dams Operational, either:- and boreholes, Rehabilitation, .. accommodation, offices, Closure, Post .

ablution, stores, workshops, closure). Upoindivn idua l acctesivsiatytion of the

processing plant, storm water Or control, berms, roads,

Drill site	Prospecting		Every effort must be made to minimise the area needed at each drilling site. Vegetation must not be cut or trimmed unless absolutely essential. The area that was disturbed by the drilling operation at each site must be rehabilitated, as far as is practicable, to its original state as soon as the drilling is completed. Photographs, for monitoring purposes, must be taken before drilling commences and after each drilling site has been rehabilitated. These photographs must be included in the required Performance Assessment Reports.	DUHO must ensure that all employees, contractors, visitors comply with the EMP	Rehabilitate upon cessation of the individual activity that is as soon as a drill hole is completed.
Access routes	Prospecting	N/A	No new roads are to be constructed on this site unless agreed upon with the farm owner. Tracks across areas covered by natural vegetation will be kept to the absolute	DUHO Mining must ensure that all employees, contractors, visitors comply with the EMP	Rehabilitate immediately

e) Impact Management Outcomes

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

ACTIVITY (Whether listed or not listed). **(E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, 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) throug h (E.g. noise control measures, storm- water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc)** **E.g .**	**STANDARD TO BE ACHIEVED** **(Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.**

Site Establishment	Dust and Noise from Vehicles driving in veld to access the proposed drill site	Air	Operation	Noise control, Reduce dust by driving slow. Ensure vehicles and equipment is maintained. Silencers must be fitted on all engines.	Impact controlled
Site Establishment	Carbon emissions due to internal combustion of fuel	Air	Operation	Ensure vehicles and equipment is maintained.	Impact controlled
Drilling	Noise	Environmental nuisance	Operation	Ensure vehicles and equipment is maintained. Silencers must be fitted on all engines.	Impact controlled
Drill site	Removal of top soil for sump. Drainage surface disturbance	Biodiversity loss	Operations and Post Closure	Vegetation needs to take place with topsoil that has the surrounding vegetation seed banks. Badly damaged areas must be fenced in to enhance rehabilitation. Areas to be rehabilitated must be planted with a mixture of local pioneer species indigenous to the area, as soon as the new growing season starts. To get the best results in a specific area, it is a good idea to consult with a vegetation specialist or the local extension officer of the Department of Agriculture. Seed distributors can also give valuable advice as to the mixtures and amount of seed necessary to seed a certain area. Re-seeding, as well as fencing in of badly damaged areas, must always be at the discretion of the Environmental Control Officer and in compliance with EMP.	Impact controlled

Drill Site	Dust	Air pollution	Operation	Put dust control measures	Impact controlled
Drilling	Use of drilling mud during drilling	Ground water contamination	Operation and Post Closure	Put control measures	Impact controlled
Drilling	oFpaileraure tionso f drill sludge control system	Surrounding environment, Ground water	Operation	Establish EMP procedures to minimise hydrocarbon spills.	Impact controlled
Drilling	Breakdown of machinery, oil spillages	Surrounding environment and water	Operation	Establish EMP procedures to Minimise hydrocarbon spills.	Impact controlled

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).

ACTIVITY Whether listed or not listed. **(E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc…etc…etc.)**.	**POTENTIAL IMPACT** **(e.g. dust, noise, drainage surface disturbance, air rock, surface water contamination, groundwater contamination, pollution etc….etc…)**	**MITIGATION TYPE** **(modify, remedy, control, or stop) through (E.g. noise control measures, storm- water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc)** **E.g.** • **Modify through alternative method. Control through noise control** • **Control through management and monitoring** **Remedy through rehabilitation.**	**TIME PERIOD FOR IMPLEMENTATION** Describe the time period when the measures in the environmental management programme must be implemented Measures must be implemented when required. With regard to Rehabilitation specifically this must take place at the earliest opportunity. .With regards to Rehabilitation, therefore state either:-. Upon cessation of the	**COMPLIANCE WITH STANDARDS** (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 have been identified by Competent Authorities)
Site Establishment	Dust and Noise from Vehicles driving in veld to access the proposed drill site	Noise control, Reduce dust by driving slow. Ensure vehicles and equipment is maintained. Silencers must be fitted on all engines.	Ongoing during activity	DUHO Mining will ensure that all employees, contractors, visitors comply with the EMP

Site Establishment	Carbon emissions due to internal combustion of fuel	Ensure vehicles and equipment is maintained.	Ongoing during activity	DUHO Mining must ensure that all employees, contractors, visitors comply with the EMP
Drilling	Noise	Ensure vehicles and equipment is maintained. Silencers must be fitted on all engines.	Ongoing during activity	DUHO Mining will must ensure that all employees, contractors, visitors comply with the EMP
Drill site	Removal of top soil for sump. Drainage surface disturbance	Rehabilitate ground soon after drilling.	Upon cessation of individual activity	DUHO Mining must ensure that all employees, contractors, visitors comply with the EMP
Drill Site	Dust	Put dust control measures	Ongoing during activity	DUHO Mining will ensure that all employees, contractors, visitors comply with the EMP
Drilling	Use of drilling mud during drilling operations	Put control measures	Ongoing during activity	DUHO Mining must ensure that all employees, contractors, visitors comply with the EMP
Drilling	Failure of drill sludge control system	Establish EMP procedures to minimise hydrocarbon spills.	Ongoing during activity	DUHO Mining must ensure that all employees, contractors, visitors comply with the EMP
Drilling	Breakdown of machinery, oil spillages	Establish EMP procedures to minimise hydrocarbon spills.	Ongoing during activity	DUHO Mining must ensure that all employees, contractors, visitors comply with the EMP

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.**

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

- Minimise the area to be disturbed and to ensure that the areas disturbed during the prospecting activities are rehabilitated and stable, as per the commitments made in the EMP.
- Sustain the pre-prospecting land use.
- To record and communicate the results of the monitoring programme during decommissioning to the participating stakeholders.
- To receive an effective closure certificate (should the prospect indicate that the resource(s) would not support a sustainable mining operation).

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

During the public meeting it was discussed that should the prospecting yield negative results, then the end use for area will revert to its pre-prospecting land use. The end-use of the area will therefore not be changed by the prospecting operations. However, should the prospecting operation yield positive results, then the farm could be subject to a mining rights application and another more comprehensive Public Participation, Scoping, EIA and EMP process. If a mining right is granted then the area will be rehabilitated according to the requirements of the approved Environmental Management Programme that would apply throughout the life of the mine. It is important to note that regardless of the results of the prospecting activity, rehabilitation must be conducted on the affected areas.

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.**

The activities involved are for prospecting and will involve no permanent removal of soil and rock. Should the prospecting yield negative results, then the end use for area will revert to its pre-prospecting land use. The end-use of the area will therefore not be changed by the prospecting operation. However, should the prospecting operation yield positive results, then the farm could be subject to a mining rights application and another more comprehensive Public Participation, Scoping, EIA and EMP process. If a mining right is granted then the area will be rehabilitated according to the requirements of the approved Environmental Management Programme that would apply throughout the life of the mine.

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

The amount for rehabilitation is anticipated to be an operating cost and provided for in the Prospecting Work Programme Drill site rehabilitation will be undertaken by the contract drilling company on completion of every borehole. This will include:

- The removal of all wastes generated on-site by the drilling activity.
- Backfilling of sumps, where applicable

- The ripping of cleared and compacted soils where this may have occurred; and
- The re-contouring of drill sites to resemble the topography similar to that prior to the commencement of drilling activities
- Take photos of the site before prospecting commences and after prospecting

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

The quantum of the financial provision required is therefore: R 52,726.99. The Company must annually update and review the quantum of the financial provision (Regulation 54 (2)).Table For Calculations Attached Below

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

DUHO Mining Investment undertakes to provide financial provision and a Bank Guarantee will be the method of providing for the financial provision upon receipt of the Environmental Authorisation. The amount is anticipated to be an operating cost and provided for in the Prospecting Work Programme.

No	Description	UNIT	A	B	C	D	E=A*B*C*D
			QUANTITY	MASTER	MULTIPLICATION	WEIGHTING	AMOUNT (R)
				RATE	FACTOR	FACTOR 1	
1	Dismantling of processing plant and related structures (including overland conveyors and	m3	0	R 12.29	1	1	R -
2(a)	Demolition of steel buildings and	m2	0	R 171.18	1	1	R -
2(b)	Demolition of reinforced concrete buildings and structures	m2	0	R 252.26	1	1	R -
3	Rehabilitation of access roads	m2	0	R 30.63	1	1	R -
4(a)	Demolition and rehabilitation of electrified railway lines	m	0	R 297.30	1	1	R -
4(b)	Demolition and rehabilitation of nonelectrified railway lines	m	0	R 162.16	1	1	R -
5	Demolition of housing and/or administration facilities	m2	0	R 342.34	1	1	R -
6	Opencast rehabilitation including final voids and ramps	ha	0	R 174,238.00	1	1	R -
7	Sealing of shafts and its and inclines	m3	0	R 91.89	1	1	R -
8(a)	Rehabilitation of overburden and	ha	0	R 119,642.23	1	1	R -
8(b)	Rehabilitation of processing waste deposits and evaporation ponds (nonpolluting potential)	ha	0	R 149,012.22	1	1	R -

8 (c)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0	R 432,802.15	1	1	R	-
9	Rehabilitation of subsided areas	ha	0	R 100,182.35	1	1	R	-

No	Description	UNIT	A	B	C	D	E=A*B*C*D	
			QUANTITY	MASTER	MULTIPLICATION	WEIGHTING	AMOUNT (R)	
				RATE	FACTOR	FACTOR 1		
10	General surface rehabilitation	ha	0.4	R 94,776.82	1	1	R	37,910.73
11	River diversions	ha	0	R 94,776.82	1	1	R	-
12	Fencing	m	0	R 108.11	1	1	R	-
13	Water management	ha	0	R 36,036.81	1	1	R	-
14	2 to 3 years of maintenance and	ha	0	R 12,612.88	1	1	R	-
15 (A)	Specialist study						R	-
15 (B)	Specialist study						R	-
						Sub-Total	R	37,910.73
1	Preliminary and General			R 4,549.29		Weighting Factor 2	R	4,549.29
2	Contigen						R	3,791.73
						Sub Total 2	R	46,251.75
						VAT (14%)	R	6,475.24
						SUM	**R**	**52,726.99**

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
Site Establishment	The clearing of vegetation	Monitor daily	Geologist/ ECO	Daily by Geologist, bi-monthly by independent environmental control officer to compile the required annual environmental compliance report required by the DMR
Drilling	The storage of hydrocarbon based materials on site	Monitor daily	Geologist/ ECO	Daily by Geologist, bi-monthly by independent environmental control officer to compile the required annual environmental compliance report required by the DMR
Drilling	On-site waste management	Monitor Daily	Geologist/ ECO	Daily by Geologist, Annually by independent environmental control officer to compile the required annual environmental compliance report required by the DMR

Drilling	The creation of roads/tracks	Monitor daily	Geologist/ ECO	Daily by Geologist, Annually by independent environmental control officer to compile the required annual environmental compliance report required by the DMR

Drilling	The removal of storage and soil	Monitor Daily	Geologist/ ECO	Daily by Geologist, Annually by independent environmental control officer to compile the required annual environmental compliance report required by the DMR
Drilling	Driving activities	Monitor Daily	Geologist/ ECO	Daily by Geologist, Annually by independent environmental control officer to compile the required annual environmental compliance report required by the DMR
Drilling	Groundwater: Monitor the water quality of the boreholes	Monitor Daily	Geologist/ ECO	Daily by Geologist, Annually by independent environmental control officer to compile the required annual environmental compliance report required by the DMR

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

Environmental audit reports must be submitted monthly by an independent ECO.

h) 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**

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

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

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

i) **Specific information required by the Competent Authority**

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

Heritage Impact Assessment

The financial provision will be reviewed annually indicating work that would have been completed and money used for rehabilitation as required by the law.

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

d) That the information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected. Parties are correctly reflected herein.

Signature of the environmental assessment practitioner:

Name of company:

Thevha Consulting (Pty) Ltd

Date: 05 February 2018

Appendix A-CV of the EAP and Qualifications Appendix B-Locality and Layout Plans Appendix C-Public Participation Appendix C1-Proof of site notices Appendix C2-Background Information Document Appendix C3-Proof of newspaper adverts Appendix C4-Communications to and from IAP Appendix C5-IAP Register List Appendix C6-Public Participation Report and Minutes to the Public Meeting Appendix D-DWS Attendance Register

Appendix E-Other Items