



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

Private Bag X33, Welkom, 9460, Tel: 057 391 1342, Fax: 057 357 6003
The Strip Building, 314 Stateway Street, Welkom, 9459

Enquiries: Ms. N.Mhlarhi Ref: FS 30/5/1/1/3/2/1 (10521) EM

E-Mail Address: Nkateko.Mhlarhi@dmr.gov.za

Sub-Directorate: Mine Environmental Management

BY REGISTERED MAIL

White Rivers Exploration (Pty) Ltd

P.O Box 2591

Cresta

2118

Contact person: Mr. Stephen O'shea
Tel: 011 431 1191
Fax: 086 661 9323
E-mail: Stephen.oshea@whiterivers.co.za



ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AS AMENDED (NEMA), THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REGULATIONS 2014 AS AMENDED, FOR PROSPECTING SILVER ORE, GOLD ORE, COAL, COBALT, COPPER ORE, DIAMONDS (ALLUVIAL), IRON ORE, PLATINUM GROUP METALS, RARE EARTHS, SULPHUR, URANIUM ORE, TUNGSTEN ORE, MANGANESE ORE, MOLYBDENUM, NICKEL, LEAD AND ZINC ORE IN RESPECT OF VARIOUS PROPERTIES LISTED IN ANNEXTURE "A", ALL SITUATED IN THE MAGISTERIAL DISTRICT OF KROONSTAD IN THE FREE STATE REGION. APPLICANT: WHITE RIVERS EXPLORATION (PTY) LTD.

With reference to the abovementioned application, please be advised that the Department has decided to **grant** an environmental authorisation in terms of the National Environmental Management Act, 1998 (Act 107 of 1998). The environmental authorisation and reasons for the decision are attached herewith.

In terms of regulation 4(2) of the Environmental Impact Assessment Regulations of 2014 as amended you are instructed to notify all registered interested and affected parties, in writing within 14 (Fourteen) calendar days, from the date of the Department's decision in respect of your

application and the relevant provisions regarding the lodgement of an appeal must be provided for in terms of the National Appeal Regulations of 2014.

Should you wish to appeal any aspect of the decision, you must submit the appeal to the Minister of Environmental Affairs and a copy of such appeal to the Department of Mineral Resources (Free State Regional Office), within 20 days from the date of notification, and such appeal must be lodged as prescribed in by chapter 2 of the National Appeal Regulations of 2014 as amended by means of the methods as per prescribed below:

Appeal must be submitted in writing to the Department of Environmental Affairs

Attention : Mr Z. Hassam, Director: Appeals and legal Review
Email : appeals@environment.gov.za
Tel : (012) 399 9356
By post : Private Bag X447, Pretoria, 0001
By hand : Environmental House, (473 Steve Biko) Corner Steve Biko and Soutpansberg Street, Arcadia, Pretoria, 0083

Copy of the lodged appeal to the Department of Mineral Resources

Attention : Regional Manager: Free State Region
By facsimile : 057 357 6003
E-mail : mamokete.mpatane@dmr.gov.za
By post : Private Bag X33, Welkom, 9460
By hand : The Strip Building, 314 Stateway Street, Welkom, 9459

Should you decide to appeal, you must comply with the National Appeal Regulation of 2014 in relation to notification of all registered interested and affected parties, and a copy of the official appeal form can be obtained from the Department of Environmental Affairs.

Kind Regards



A. MULAUDZI
REGIONAL MANAGER: MINERAL REGULATION
FREE STATE REGION
DATE: 01/02/2019



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

Private Bag X33, Welkom, 9460, Tel: 057 391 1356, Fax: 057 357 6003

The Strip Building, 314 Stateway Street, Welkom, 9459

Reference number: FS 30/5/1/1/3/2/1 (10521) EM
Last amended: First Issue
Holder of Authorisation: White Rivers Exploration (Pty) Ltd
Location of activity: Various properties listed in Annexure "A" All situated in the Magisterial District of Vredefort in the Free State Region.

DECISION

ACRONYMS

NEMA: The National Environmental Management Act, 1998 (Act 107 of 1998), as amended

DEPARTMENT: Department of Mineral Resources

EA: Environmental Authorisation

IEA Integrated Environmental Authorisation

EMPr: Environmental Management Programme

BAR: Basic Assessment Report

S&EIR: Scoping and Environmental Impact Report

I&AP: Interested and Affected Parties

ECO: Environmental Control Officer

SAHRA: South African Heritage Resources Agency

EIA REGULATIONS: EIA Regulations, 2014

MPRDA: Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002), as amended

NEM: WA: National Environmental Management: Waste Act, 2008 (Act 59 of 2008), as amended

NWA: National Water Act, 1998 (Act 36 of 1998) as amended



EIA: Environmental Impact Assessment.

FINANCIAL PROVISIONING REGULATIONS: The National Environmental Management Act, 1998 (Act 107 of 1998), Regulations Pertaining to the Financial Provision for prospecting, Exploration, mining or Production operations

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this environmental authorisation, that the applicant should be authorised to undertake **NEMA EIA** listed activity specified below. Details regarding the basis on which the Department reached this granting decision are set out in **Annexure “1”** and **“2”** of this environmental authorisation.

ACTIVITY APPLIED FOR

By virtue of the powers conferred on it by NEMA, the Department hereby **Grants** an EA to **White Rivers Exploration (Pty) Ltd** with the following contact details –

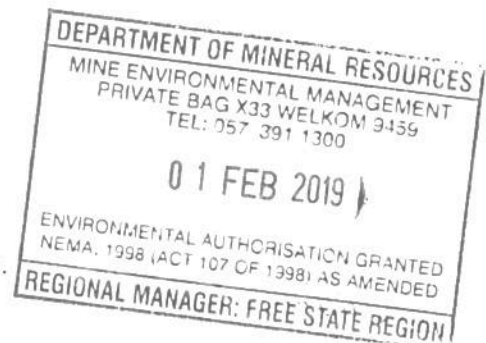
White Rivers Exploration (Pty) Ltd

P.O Box 2591

Cresta

2118

Contact person: Mr.Stephen O'shea
Tel: 011 431 1191
Fax: 086 661 9323
E-mail: Stephen.oshea@whiterivers.co.za



to undertake the following activity listed in the EIA Regulations.

NEMA: LISTED ACTIVITIES:

Listed in the EIA Regulations GNR 327 of 2017 as:

Activity 20 of listing Notice 1- “Any activity including the operation of that activity which requires a prospecting right in terms of section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including-

(a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource; or

(b) the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing; but excluding the secondary processing of a mineral resource, including the smelting, beneficiation, reduction, refining, calcining or gasification of the mineral resource in which case activity 6 in Listing Notice 2 applies”.

Detailed specifications of the activity are as follows:

Proposed prospecting activities details are as follows:	
Area under application- 18 623.73 ha	
Phase 1: Non-invasive prospecting activities.	
<ul style="list-style-type: none"> ▪ Investigate all sources for historical data. ▪ Obtain all relevant historical data. ▪ Desktop study ▪ Field visit 	
Phase 2:	
2.1 Data synthesis and generation of initial geological model.	
2.2 Ground magnetic and aeromagnetic survey.	
Phase 3:	
3.1 Location of key historical drillhole core, if available.	
3.2 Re-logging and re-sampling of historical drillholes.	
Phase 4:	
4.1 Excavation of 2 trenches to a depth of 3m, mapping and sampling.	
4.2 Finalisation of 3D geological model.	
Phase 5: Rehabilitation phase:	
<ul style="list-style-type: none"> ▪ Profiling of area. ▪ Replacement of subsoil and topsoil. 	



- Ripping of roads and other compacted areas.
- Managing the site for all post prospecting impacts to prevent any further pollution.
- Vehicle and foot traffic on site.

Re-vegetation

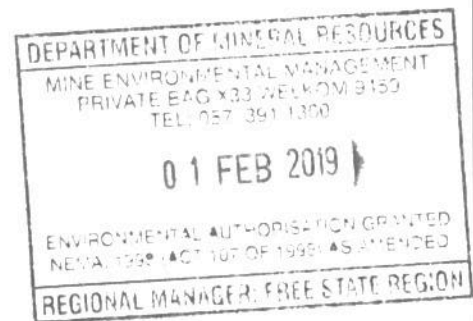
- Dust suppression,
- Fertilisation and seeding with local indigenous species.

Post closure monitoring and maintenance

- Alien vegetation management
- Environmental monitoring of rehabilitated areas
- Erosion control measures.

Annexure "A"

Farm Name	Farm Portion	Surveyor General Code
Bloemfontein 7	RE/7	F0380000000000700000
Bloemfontein 7	07-Jan	F0380000000000700001
Engels Kuil 30	0/30	F0380000000000300000
Lindekwees-Fontein 73	RE/73	F03800000000007300000
Witterand 103	RE/103	F03800000000010300000
Maria 115	0/115	F03800000000011500000
Rhebokfontein-West 117	RE/117	F03800000000011700000
Roodewal 119	RE/119	F03800000000011900000
Rhebokfontein 120	RE/120	F03800000000012000000
Cecilia 134	RE/134	F03800000000013400000
Cecilia 134	1/134	F03800000000013400001
Vlakkuil 152	RE/152	F03800000000015200000
Aprilskraal 217	RE/217	F03800000000021700000
Augustus Kraal 218	RE/218	F03800000000021800000
De West Rust 230	RE/230	F03800000000023000000
De West Rust 230	1/230	F03800000000023000001
De West Rust 230	2/230	F03800000000023000002
De Put 289	RE/289	F03800000000028900000
Leeuwdoorns 350	RE/350	F03800000000035000000
Leeuwdoorns 350	RE/350	F03800000000035000001



Leeuwdoorns 350	RE/350	F03800000000035000002
Leeuwdoorns 350	3/350	F03800000000035000003
Leeuwdoorns 350	4/350	F03800000000035000004
Leeuwdoorns 350	5/350	F03800000000035000005
Mount Surprise 357	RE/357	F03800000000035700000
Mount Jackson 358	RE/358	F03800000000035800000
Mount Jackson 358	1/358	F03800000000035800001
Tevreden 374	0/374	F03800000000037400000
Mimosa Grove 491	RE/491	F03800000000049100000
Mimosa Grove 491	1/491	F03800000000049100001
Mimosa Grove 491	2/491	F03800000000049100002
Dora 492	0/492	F03800000000049200000
Smaldeel 493	0/493	F03800000000049300000
Brakdam 494	RE/494	F03800000000049400000
Brakdam 494	1/494	F03800000000049400001
Goedgedacht 504	0/504	F03800000000050400000
Geluksvlei 605	0/605	F03800000000060500000
Knapdaar 619	0/619	F03800000000061900000
Kingsley 622	RE/622	F03800000000062200000
Damplaats 626	0/626	F03800000000062600000
Windhuk 630	RE/630	F03800000000063000000
Cyferkuil 634	0/634	F03800000000063400000
Palestina 635	0/635	F03800000000063500000
Bellary 724	0/724	F03800000000072400000
Klipheuvel 739	0/739	F03800000000073900000
Goudini 742	0/742	F03800000000074200000
Stillehoogte 744	0/744	F03800000000074400000
Jacoba`s Rust 747	0/747	F03800000000074700000
Kroonvlei 766	0/766	F03800000000076600000
Martha`s Wil 797	0/797	F03800000000079700000
Turfhoek 798	0/798	F03800000000079800000
Morgenzon 799	RE/799	F03800000000079900000
Morgenzon 799	2/799	F03800000000079900002
Morgenzon 799	3/799	F03800000000079900003
Morgenzon 799	4/799	F03800000000079900004
Hercules 800	RE/800	F03800000000080000000
Hercules 800	1/800	F03800000000080000001
Hercules 800	4/800	F03800000000080000004
Hercules 800	6/800	F03800000000080000006
Verheugd 851	RE/851	F03800000000085100000
Verheugd 851	3/851	F03800000000085100003
Verheugd 851	4/851	F03800000000085100004



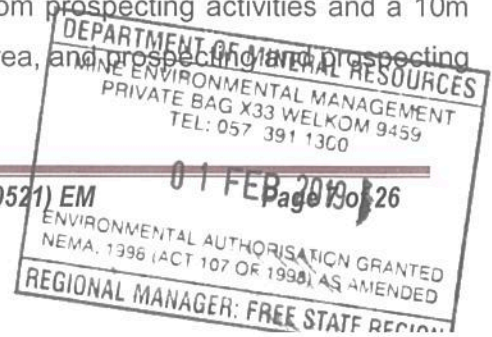
Mooiplaats A 852	RE/852	F03800000000085200000
Mooiplaats B 853	RE/853	F03800000000085300000
Aberdeen B 974	0/974	F03800000000097400000
Mooihoek 975	0/975	F03800000000097500000
Baltespoort 998	RE/998	F03800000000099800000
Uitsoek 1011	0/1011	F03800000000101100000
Skaapplaas 1022	RE/1022	F03800000000102200000
Skaapplaas 1022	1/1022	F03800000000102200001
Skaapplaas 1022	2/1022	F03800000000102200002
Skaapplaas 1022	3/1022	F03800000000102200003
Uitkyk 1027	RE/1027	F03800000000102700000
Uitkyk 1027	1/1027	F03800000000102700001
Uitkyk 1027	2/1027	F03800000000102700002
Uitkyk 1027	3/1027	F03800000000102700003
Bren 1031	0/1031	F03800000000103100000
Kinderbewys A 1044	0/1044	F03800000000104400000
Kinderbewys B 1045	0/1045	F03800000000104500000
Eendekuil 1057	RE/105	F03800000000105700000
Eendekuil 1057	1/1057	F03800000000105700001
Voordeel 1067	0/1067	F03800000000106700000
Vrugbaar 1107	0/1107	F03800000000110700000
Freda 1108	0/1108	F03800000000110800000
Maugwynheg 1136	0/1136	F03800000000113600000
Rhebokfontein Wes 1172	0/1172	F03800000000117200000
Smaragd 1173	0/1173	F03800000000117300000
Leeuwdoorns 1215	0/1215	F03800000000121500000
Mooiuitsig 1216	RE/1216	F03800000000121600000
Goudrif 1218	0/1218	F03800000000121800000

The granting of this EA is subject to the conditions set out below (site specific) and in **Annexure 2** (Departmental standard conditions). The EMPr attached as part of reports for the above development submitted as part of the application for an EA is hereby approved and must be adhered to throughout the life cycle of the mining operation.



EA SITE SPECIFIC CONDITIONS

1. Land owners and occupiers must be re-consulted at least 1 month prior to any site activities being undertaken once drill sites have been identified.
2. As far as possible, the proposed development (including access roads) must be placed in areas that have already been disturbed, and no further loss of primary or secondary vegetation should be permitted.
3. Trench areas and dumping areas must completely avoid any trees (especially any protected tree species).
4. The trenches must not exceed 3 meters in depth.
5. Rehabilitation of the trenches and access road must be made a priority and be concurrent. Rehabilitation must include backfilling of the open trenches with appropriate rock and soil and suitably compacted. Topsoil must also be utilised, and the area must be re-vegetated with plant and grass species which are endemic to this vegetation type.
6. All affected areas need to be re-vegetated with indigenous vegetation to prevent erosion during flood events.
7. Any areas of natural, indigenous vegetation should be declared a “no-go” area during the construction and operational phases and effort must be made to prevent access to such areas from construction workers, machinery, animals and the public.
8. Prior to the establishment of the prospecting site, any larger fauna species noted must be given a chance to move away from the prospecting area. Fauna species such as frogs and reptiles that have not moved away must be carefully and safely removed to a suitable location beyond the extent of the development footprint by a suitably qualified ECO trained in the handling and relocation of animals.
9. The cemeteries identified near the location of Trench 1 and 2 on the farms Mimosa Groove 491 and Indekfeesfontein 73 should be fenced off from prospecting activities and a 10m buffer be established from each of the cemeteries. These areas should be considered as No-Go-Areas.
10. Should prospecting activities expand in the near future to include the farm Rhebokfontein West 117, the cemetery (Rhebok Cem-01) should also be fenced off from prospecting activities and a 10m buffer zone be established. This area will become a No-Go-Area, and prospecting machinery and vehicles should avoid the area.



11. Should the prospecting activities expand in the near future to include the farm Rhebokfontein West 117, a phase II investigation of the stonewalls (site complex 01) on the Rhebokfontein West 117 should be conducted, where it is mapped, recorded and permit for alterations and demolition should be applied for in terms of section 34 of the NHRA, 1999 (Act 25 of 1999) with the provincial heritage authority i.e Free State Provincial Heritage Authority (FSPHRA).
12. Should the prospecting activities expand in the near future a buffer zone should be established around Onreg Cem-01 on the farm Onreg 1032 and it should be marled as a No-Go-area.
13. The historical graves identified were rated as high/medium significance and are protected in terms of Section 36 of the NHRA, 1999 (Act 25 of 1999). The machinery or site office associated with the proposed prospecting activities should be established near the graves.
14. Due to the sensitivity of the soil layer and the associated risk of erosion, any access roads that may be established, should be constructed during dry season and ideally all prospecting should be conducted only in this season in order to prevent runoff and erosion.
15. A chance Find Protocol must be adhered to, if fossils are found once coring has commenced they must be rescued, and a palaeontologist must be called to assess and collect a representative sample.
16. Maintain a minimum of 500m buffer from any infrastructure or dwelling.
17. Ecology survey of any identified drill site and access routes that may fall within any critical endangered ecosystems must be conducted before drilling activities are conducted.
18. Indigenous animals and birds that are found in the area must not be harmed and must be protected as far as it is practicable.
19. Recommendations from all specialist reports must be adhered to.



ANNEXURE 1: REASONS FOR THE DECISION

1. Background

White Rivers Exploration (Pty) Ltd submitted an application for an EA for an activity listed in the EIA Regulations as:

Listed in the EIA Regulations GNR 327 of 2017 as amended, as:-

Activity 20-“Any activity including the operation of that activity which requires a prospecting right in terms of section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including-

(a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource; or

(b) the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing; but excluding the secondary processing of a mineral resource, including the smelting, beneficiation, reduction, refining, calcining or gasification of the mineral resource in which case activity 6 in Listing Notice 2 applies”.

White Rivers Exploration (Pty) Ltd appointed Ms Nangamso Zizo Siwendu of Shango Solutions as an EAP to undertake the Basic Assessment process as required by Regulation 19 of the EIA Regulations, 2014 as amended.

2. Information considered in making the decision

In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The information contained in the application form received by the Department on the 19th of June 2018;
- b) The information contained in the final BAR & EMPr received by the Department on the 22nd of October 2018;
- c) The objectives and requirements of the applicable and relevant legislation, policies and guidelines and the EIA Regulations ;



- d) Public Participation Process (PPP) attached in the BAR and EMPr.
- e) Relevant information contained in the Departmental information database, including, the Department's circular on the One Environmental Management System dated 8 December 2014;
- f) The comments received from "I&APs" and the responses provided thereon, as included in the final BAR and EMPr received by the Department on the 22nd of October 2018;
- a) Comments received from SAHRA included in the BAR & EMPr submitted on the 22nd of October 2018.
- g) Recommendations made on all specialist reports (HIA, the desktop Palaeontological Impact Assessment, Biodiversity and wetland baseline and impact assessment) included in the BAR & EMPr submitted to the department on the 22nd of October 2018.
- h) The sense of balance of the negative and positive impacts and mitigation measures;
- i) The Environmental Emergency Procedure Report included in the BAR and EMPr,
- j) The Environmental Awareness Plan Report included to the BAR and EMPr,
- k) The applicant has determined the financial provision as required in terms of the Financial Provisioning Regulations, 2015. Moreover, an amount of **R 24 333.86** was calculated to be the environmental liability associated with this EA. This amount is deemed sufficient to cater for the purposes set in regulation 2 of the Financial Provisioning Regulations. This amount must be made available before any activities are conducted on site.



3. Key factors considered in making the decision

All the information presented to the Department was taken into consideration of the application. A summary of the issues which, in the Department's view, were of the most significance are set out below.

- b) Sufficient PPP was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations for public involvement;
- c) The environmental impacts associated with the activity will be addressed by the implementation of mitigation measures outlined in the BAR and EMPr compiled by Ms Nangamso Zizo Siwendu of Shango Solutions and submitted to the Department on the 22nd of October 2018;

- d) The Environmental Awareness Plan contained in the BAR and EMPr submitted to the Department on the 22nd of October 2018; compiled by Ms Nangamso Zizo Siwendu of Shango Solutions is sufficient.
- e) The rehabilitation and closure plan contained in the BAR and EMPr submitted to the Department on the 22nd of October 2018 is sufficient.
- f) The Phase 1 Heritage Impact Assessment report dated 17th of October 2018, compiled by Ms Cherene De Bruyn states that the proposed project area is located in a region rich in archaeology and heritage resources, the proposed mitigation measures are sufficient.
- g) The Palaeontological Impact Assessment report dated 17th of October 2018, compiled by Professor Marion Bamford states that it is extremely unlikely that any fossils would be preserved in the loose sands of the quaternary. There is a small chance that fossils may occur in the shales of the early Permian Vryheid Formation.
- h) The Biodiversity and wetland baseline and impact assessment report dated August 2018 and prepared by The Biodiversity Company states that the proposed prospecting area is situated in an area which is regarded as "degraded". Within a few hundred meters of the prospecting area there are ecosystems which are listed as CBA1 and EAS's. The area falls entirely within one ecosystem which is listed as a vulnerable ecosystem. The ecosystem protection level map shows the status of the proposed prospecting area to be rated as not protected, this means that this ecosystem type are not well protected anywhere in the country.
- i) Based on the SANBI (2010) Protected Areas Map and the National Protected Areas Expansion Strategy (NPAES) the project area does not overlap with, nor will it impact upon, any formally protected area.

4. Findings

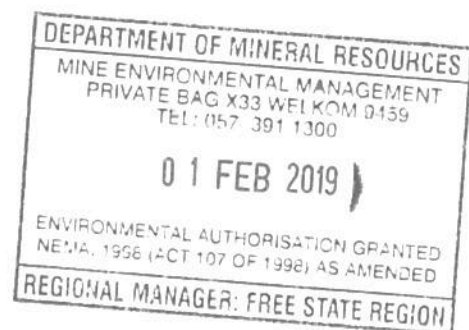
After consideration of the information and factors listed above, the Department made the following findings –

- a) The potential impacts on the site were clearly investigated and mitigation measures were also outlined.
- b) The PPP complied with Chapter 6 of the EIA Regulations R 982. The PPP included, *inter-alia*, the following:

Environmental Authorisation for file reference number FS 30/5/1/1/3/2/1 (10521) EM



- Identification of and engagement (public meeting) with I&APs;
- Fixing a notice board at the site where the listed activity is to be undertaken;
- Giving written notice to the owners and occupiers of land including the owners and occupiers of the land adjacent to the site where the listed activity is to be undertaken, the municipality, and the various Organs of State having jurisdiction in respect of any aspect of the listed activity;
- The newspaper adverts published on The Weekly newspaper on the 27th of July 2018;
- Site notices placed on the proposed sites.
- The public meeting held on the 10th of October 2018 at Parys Golf and Country Estate Restaurant.



ANNEXURE 2: DEPARTMENTAL STANDARD CONDITIONS

1. SCOPE OF AUTHORISATION

- 1.1 The holder of the EA shall be responsible for ensuring compliance with the conditions contained in the EA. This includes any person acting on the holder's behalf, including but not limited to an agent, servant, contractor, subcontractor, employee, consultant or any person rendering a service to the holder of EA.
- 1.2 Any changes to, or deviation from the project description set out in this EA must be approved in writing by the Department before such changes or deviation may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviation and it may be necessary for the holder of the EA to apply for further authorisation in terms of the EIA Regulations.
- 1.3. The activity (ies), which is/are authorised, may only be carried out at the property (ies) indicated in the EA and or on the approved EMPr.
- 1.4 Where any of the holder of the EA contact details change including name of the responsible person, physical or postal address/ or telephonic details, the holder of the EA must notify the Department as soon as the new details become known to the holder of the EA.
- 1.5 The EA does not negate the responsibility of the holder to comply with any other statutory requirements that may be applicable to the undertaking of such activity (ies).
- 1.6 The holder of EA must ensure that all areas where the authorized activities occur have controlled access to ensure safety of people and animals.

2. APPEAL OF AUTHORISATION

- 2.1 The holder of EA must in writing, within 14 (fourteen) calendar days from the date of this decision and in accordance with regulation 4(2) of the EIA Regulation do the following.
- 2.2 Notify all registered I&APs of –

- 2.2.1 The outcome of the application;
- 2.2.2 The date of the decision;
- 2.2.3 The date of issue of the decision and;

DEPARTMENT OF MINERAL RESOURCES MINE ENVIRONMENTAL MANAGEMENT PRIVATE BAG X33 WELKOM 9459 TEL: 057 391 1300
01 FEB 2019
ENVIRONMENTAL AUTHORISATION GRANTED NEMA, 1998 (ACT 107 OF 1998) AS AMENDED
REGIONAL MANAGER: FREE STATE REGION

2.2.4 The reasons for the decision as included in Annexure 1 and Departmental Standard Conditions in Annexure 2.

2.3 Draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the NEMA: National Appeals Regulations,

2.4 Draw the attention of all registered I&APs to the manner in which they may access the decision.

2.5 Provide the registered I&APs with:

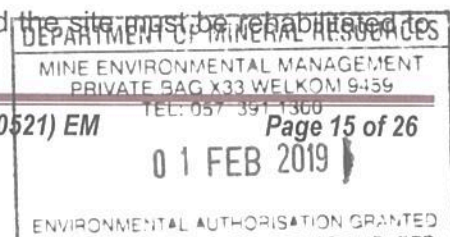
- 2.5.1 Name of the holder (entity) of this EA
- 2.5.2 Name of the responsible person for this EA
- 2.5.3 Postal address of the holder;
- 2.5.4 Telephonic and fax details of the holder and
- 2.5.5 E-mail address of the holder if any.

3. COMMENCEMENT OF THE ACTIVITY (IES)

- 3.1 All the mitigation matters to prevent negative environmental impacts must be implemented as the BAR and EMPr.
- 3.2 No activity is to occur within wetlands and their 100m buffer zones, within rivers and their 100m buffer zones/ 1: 100 year flood line without the necessary authorization under NEMA and NWA.
- 3.3 Protected species must remain in situ until the necessary permits are obtained under NEM: BA.
- 3.4 Heritage sites and 50m buffer zones will be preserved at all times unless the necessary permits are obtained under SAHRA.
- 3.5 Heritage studies must be conducted by a specialist once prospecting sites are identified, before a specialist conduct heritage assessment the holder is permitted to commence with the non-invasive prospecting activities only. Invasive prospecting can commence after a heritage impact assessment has been conducted on the proposed sites.
- 3.6 In order to ensure safety, all employees must be given the necessary personnel protective equipment (PPE).
- 3.7 This EA must be provided to the site operator and the requirements thereof must be made fully known to him or her.



- 3.8** Access routes for prospecting vehicles and machinery must be clearly marked and appropriate signalling must be posted to that effect. Furthermore, movement of prospecting vehicles and machinery must be restricted to areas outside of the drainage line or wet areas.
- 3.9** Appropriate notification sign must be erected at the prospecting site, warning the public (residents, visitors etc.) about the hazard around the prospecting area and presence of heavy vehicles and machinery.
- 3.10** Prospecting and all related activities must be limited to daytime hours on Mondays to Saturdays and no work must be undertaken on Sundays as indicated in your report.
- 3.11** Noise abatement equipment such as mufflers on diesel engines must be maintained in good condition.
- 3.12** Prospecting must include design measures that allow surface and subsurface movement of water along the drainage lines so as not to impede natural surface and subsurface water flow, and drainage measures must promote the dissipation of storm water runoff.
- 3.13** Vegetation clearance is not permitted, and mitigation measures must be implemented to reduce the risk of erosion and alien species invasion.
- 3.14** The holder of the EA must note that in terms of the National Forest Act, 1998 (Act No.84 of 1998) protected plant species, also listed in must not be cut, disturbed, damaged, destroyed and their products must not be possessed, collected, removed, transported, exported, donated, purchased or sold unless permission is granted by the Department of Agriculture, Forestry and fisheries.
- 3.15** Construction of storage areas is not permitted onsite, topsoil and subsoil must be protected from contamination or pollution.
- 3.16** All prospecting activities must occur in the low flow season, during the drier months.
- 3.17** An active search for floral and faunal Species of Conservation Concern (SCC) must be conducted in areas where prospecting activities are planned prior to such activities taking place, the anticipated prospecting footprint along with all access roads and the immediate vicinity must be investigated.
- 3.18** Any activity proposed within the water courses and associated buffer zones, including rehabilitation must be authorized by the DWS in terms of section 21 (c) & (i) of the National Water Act, 1998 (Act 36 of 1998).
- 3.19** The prospecting activity foot print must fall outside the 1:100 year flood line of the watercourse or 100m from the edge of the feature, whichever distance is the greatest.
- 3.20** Prospecting activities must not take place on sensitive areas as indicated on the sensitivity map, the sensitivity map must be considered when selecting prospecting areas.
- 3.21** The construction of site camp is not permitted.
- 3.22** If any soil contamination is noted at any phase of the proposed activity (ies), the contaminated soil must be removed to a licensed waste disposal facility and the site must be rehabilitated to



the satisfaction of the Department and Department of Water and Sanitation. The opportunity for the onsite remediation and re-use of contaminated soil must be investigated prior to the disposal and this Department must be informed in this regard.

- 3.23 An integrated waste management approach must be implemented that is based on waste minimization and must incorporate avoidance, reduction, recycling, treatment, reuse and disposal where appropriate. Uncontaminated rubble generated on the premises can be re-used as back filling material on site. Ensure that no refuse or rubble generated on the premises is placed, dumped or deposited on the adjacent properties or public places and open space.
- 3.24 In terms of sections 28 and 30 of NEMA, and sections 19 and 20 of the NWA, any costs incurred to remedy environmental damage must be borne by the person responsible for the damage. It is therefore imperative that the holder of the EA reads through and understand the legislative requirements pertaining to the project. It is the holder of EA responsibility to take reasonable measures which include informing and educating contractors and employees about environmental risks of their work and training them to operate in an environmentally acceptable manner.
- 3.25 Heritage remains be exposed during operation or any actions on the site, these must immediately Prospecting vehicle must be serviced and maintained in the manner whereby no excessive smokes are produced and noise production is reduced to acceptable levels, and to prevent oil leaks. Contaminated soil must be remediated on site or removed to an authorized landfill site.
- 3.26 Residents (if any) on the property (ies) and surrounding areas must be informed if any unusual noisy activities are planned.
- 3.27 Dust suppression measures must be implemented on all exposed surface to minimize and control airborne dust.
- 3.28 Mixing of cement, concrete, paints, solvent, sealants and adhesive must be done in specified areas on concrete aprons or on protected plastic linings to contain spillage or overflow onto soil to avoid contamination of underground water and environmental damage.
- 3.29 Maintenance and refuelling of machineries must be done at specified areas to minimize soil contamination.
- 3.30 Spill kit must be available on each site where prospecting activities will be taking place.
- 3.31 Should any be reported to the South African Heritage Resource Agency (SAHRA) and (in accordance with the applicable legislation). Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from SAHRA. The Department must also be informed about such exposure in writing. Heritage remains include: archaeological remains (including fossil bones and fossil shells); coins; middens, indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artefacts and bone remains; structures and other built features; rock art and rock

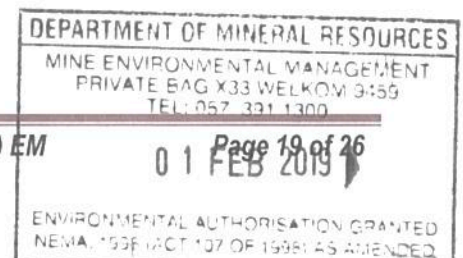
engravings; shipwrecks; and graves or unmarked human burials. A qualified archaeologist must be contracted where necessary (at the expense of the applicant and in consultation with the relevant authority) to remove any human remains in accordance with the requirements of the relevant authority.

- 3.24** Hydraulic fluid or chemicals required during construction must be stored in a concrete lined surface with bund walls and shall be designed in such a manner that any spillage can be contained and reclaimed without any impact on the surrounding environment. Should any spills occur it should be cleaned immediately by removing spillage together with the polluted solids and dispose it in the authorised disposal site permitted of such waste. The regional office of the Department of Water and Sanitation must be notified within 24 hours of an incident that may pollute surface and underground water resources.
- 3.25** Chemical sanitation facilities or system such as toilets that do not rely on the seepage of liquids must be provided with a ratio of 1 for every 15 workers. These must be placed such that they prevent spills or leaks to the environment and must be maintained according to the operating instructions and the content thereof must be disposed of at an authorised waste water treatment works.
- 3.26** The holder of EA must ensure that any water uses listed in terms of section 21 of National Water Act must get authorization from Department of Water and Sanitation prior to the commencement of such activity (ies).
- 3.27** This EA does not purport to absolve the holder of EA from its common law obligations towards the owner of the surface of land affected.
- 3.28** The holder of EA must ensure that rehabilitation of the disturbed areas caused by operation at all times comply with the approved EMPr.
- 3.29** This EA may be amended or withdrawn at any stage for non-compliance and provides no relief from the provisions of any other relevant statutory or contractual obligations.
- 3.30** The holder of EA must note that in terms section 43A of NEM: WA, residue deposit and residue deposit must be deposited and managed in a prescribed manner on any site demarcated for that purpose in the Environmental Management Plan or EMPr. No person may temporary or permanently deposits residue stockpile or residue deposit on any area or site other than on site indicated on the Environmental Management Plan or EMPr.
- 3.31** The holder of EA must note that in terms section 20 of the NEM: WA, no person may commence, undertake or conduct a waste management activity, except in accordance, with the requirements of norms and standards determined in terms of Section 19 (3) for that activity or a waste management license is issued in respect of that activity if license is required.
- 3.32** An appeal under Section 43 (7) of NEMA suspend an EA or exemption or any provisions of conditions attached hereto, or any directive unless the Minister directs otherwise.

- 3.33** Should you be notified by the Minister of a suspension of the authorisation pending appeal procedure, you may not commence with the activity (ies) until such time that the Minister allows you to commence with such activity (ies) in writing.
- 3.34** The Department reserves the right to audit and/or inspect the activity (ies) without prior notification at any reasonable time and at such frequency as may be determined by the Regional Manager.
- 3.35** The waste storage site must have a firm, impermeable, chemical resistant floors and a roof to prevent direct sunlight and rain water from getting in contact with the waste.
- 3.36** The storage of hydrocarbons must have bund walls with adequate capacity to contain the maximum volume that is stored in the area. Uncontaminated storm water must be prevented from coming into contact with the waste and must be diverted away from the storage site.
- 3.37** Subject to the commencement and duration requirements of the MPRDA and NEMA for the listed Prospecting activity is valid for the period for which the aforesaid Right is granted provided that this activity must commence within 10 years. If the commencement of the proposed activity does not occur within the specified period, the EA lapses and a new application for EA in terms of the NEMA and the EIA Regulations should be made for the activity to be undertaken.
- 3.38** This EA will only be effective on the event that a corresponding Permits or rights is issued in terms of MPRDA as amended and none of the activities listed in this EA may commence without permit.
- 3.39** The listed activity (ies), including site preparation, must not commence within 20 (twenty) calendar days of the date of the notification of the decision being sent to the registered I&APs. In the event that an appeal is lodged with the appeal administrator, the effect of this environmental authorisation is suspended until such time as the appeal is decided.
- 3.40** Should there be any conflicting conditions between this EA and other approval granted by other authorities, it is the EA holder's responsibility to bring it to the attention of the Department for resolution.
- 3.41** Should any Species of Conservation Concern (SCC) or other protected floral and faunal species be encountered within the study area, the following must be done
- ❖ If any threatened species will be disturbed, ensure effective relocation of individuals to suitable offsite areas
 - ❖ Permit applications must be obtained from the relevant authorities where applicable; and
 - ❖ A suitable qualified specialist must oversee all rescue and relocation plans.

4. MANAGEMENT OF ACTIVITY (IES)

- 4.1 A copy of the EA and EMPr must be kept at the property or on site office where the activity (lies) will be undertaken. The EA and EMPr must be produced to any authorised officials of the Department who request to see it and must be made available for inspection by any employee or agent of the holder of the EA who works or undertakes work at the property (ies).
- 4.2 The content of the EMPr and its objectives must be made known to all contractors, subcontractors, agent and any other people working on the site, and any updates or amendments to the EMPr must be submitted to the Department for approval.
- 4.4 Regular monitoring and maintenance of storm water drainage facilities must be conducted at all times, if damaged as directed by the Department or any other relevant authority.
- 4.5 A buffer zone of 100 metres between the activity (ies) and the residential areas, cemeteries or burial grounds, Eskom power lines and the fuel pipe line must be clearly demarcated and maintained.
- 4.6 The holder of the EA must prevent nuisance conditions or health hazards, or the potential creation of nuisance conditions or health hazards.
- 4.7 The holder of the EA must ensure that all non-recyclable waste are disposed of at waste management facilities licenced to handle such wastes and all recyclable waste are collected by licenced waste management facilities for recycling, reuse or treatment.
- 4.8 All watercourses are off-limits to all prospecting vehicles and personnel
- 4.9 All sanitary facilities provided onsite must be emptied on a weekly basis and be maintained in a good hygienically condition.
- 4.10 No fire is permitted in or near the prospecting area
- 4.11 Alien and invasive vegetation control must take place throughout the duration of the prospecting activities
- 4.12 Alien species must be eradicated and controlled to prevent their spread beyond the footprint area.
- 4.13 Alien and weed species encountered within the footprint area must be removed to comply with the existing legislation (amendments to the regulations under the Conservation of Agricultural Resources Act, 1983 and section 28 of the National Environmental Management Act, 1998).
- 4.14 Collection of plant material for any purpose is prohibited.
- 4.15 No hunting or trapping of fauna is allowed.
- 4.16 Existing farm roads must be utilised, no new access roads must be established
- 4.17 All vehicles must be regularly inspected for leaks



- 4.18 Refuelling of vehicles and machineries must take place on a sealed surface area to prevent soil contamination.
- 4.19 The footprint of the activity (ies) must be limited on the areas authorised for the actual construction works and operational activities and all areas outside of the footprint must be regarded as a "no go" areas.
- 4.20 Erosion and soil loss must be prevented by minimizing the construction site exposed to surface water run-off. Where necessary erosion stabilizing action such as gabions or re-vegetation must be implemented to prevent further habitat deterioration.
- 4.21 The holder of the EA must ensure that all personnel who work with hazardous waste are trained to deal with these potential hazardous situations so as to minimize the risk involved. Records of training and verification of competence must be kept by the holder EA.
- 4.22 In order to prevent nuisance conditions, the holder of the EA must ensure that all storage skips and bins are not overfilled.
- 4.23 In the event of vehicle breakdown, maintenance must be done with care. Drip trays must be used to control oil spillages.
- 4.24 All oil spillages must be immediately cleaned up and treated accordingly.
- 4.25 Sheet runoff from access roads must be slowed down by the strategic placement of berms
- 4.26 The holder of the EA must ensure that all liquid wastes, whose emissions to water or land could cause pollution are diverted to sewer, after testing water quality and receiving written approval from the relevant local authority.
- 4.27 All alien vegetation in the vicinity of the study area should be removed regularly and reseeded with indigenous grasses and sedges throughout the life cycle of the of the prospecting activities
- 4.28 Non-compliance with any condition of this EA or EMPr may result in the issuing of a directive in terms of section 28 and or a compliance notice in terms of section 31L of NEMA.
- 4.29 Only listed activities that are expressly specified in the EMPr that forms part of this EA may be conducted, and additional or new activities not specified herein must be applied for by the holder and authorised by the competent authority in the form of an amendment to the aforesaid EMPr before such activities may be commenced with. This condition is also applicable in the case of the amendment, addition, substitution, correction, and removal or updating of any detail in the aforesaid EMPr.
- 4.30 Rehabilitation of the disturbed surface caused by operation at all times must comply with the approved EMPr.
- 4.31 Rehabilitation must be applied on an on-going basis and no sites must be left exposed for more time than necessary to obtain the necessary data.
- 4.32 The Holder of EA must ensure that the name and contact details of the ECO is made available to the Regional Manager within 30 days of commencement. The holder of EA must also ensure

that an ECO is available on site to ensure that activity (ies) at all times comply with the issued EA and approved EMPr.

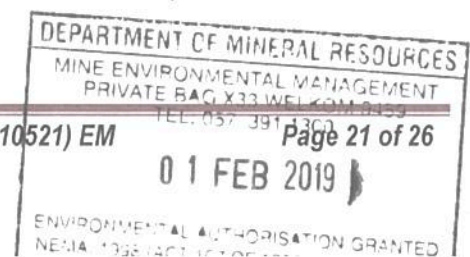
4.33 The ECO must:

- 4.33.1 Keep and maintain a detailed incidents register including any spillages of fuels, chemicals or any other material.
 - 4.33.2 Keep a complaint register on site indicating the complaint and how the issues were addressed, what measures were taken and what the preventative measures were implemented to avoid re-occurrence of complaints.
 - 4.33.3 Keep records relating to monitoring and auditing on site and avail them for inspection to any relevant authorised officials.
 - 4.33.4 Keep copies of all environmental reports submitted to the Department.
 - 4.33.5 Keep the records of all permits, licences and authorisations required by the operation.
 - 4.33.6 Compile a monthly monitoring report and make it available to the Department if requested.
- 4.34 The duties and responsibility of the ECO should not be seen as exempting the holder of the EA from the legal obligations in terms of NEMA.

5. REPORTING TO THE DEPARTMENT

5.1 The holder of EA must:

- 5.1.1 Submit and Environmental Audit Report to this Department annually and such report must be done by qualified Environmental Assessment Practitioner and must the audit report must specify whether conditions of this environmental authorisation and EMPr are adhered to;
- 5.1.2 Identify and assess any new impacts and risks as a result of undertaking the activity/ies, if applicable;
- 5.1.3 Identify shortcomings in the EMPr , if applicable;
- 5.1.4 Identify the need, if any, for any changes to the management, avoidance and mitigation measures provided for in the EMPr/closure plan;
- 5.1.5 if applicable, specify that the corrective action/s taken for the previous audit's non-conformities, was adequate;



5.1.6 Specify the name of the auditor and

5.1.7 Be submitted by the holder to the competent authority within 30 days from the date on which the auditor finalised the audit.

5.2 Should any shortcomings in terms of regulation 34(4) of the EIA Regulations be identified, the holder must submit recommendation to amend the EMPr in order to rectify any shortcomings identified with the aforementioned audit report.

5.3 Any complaint received from the I&AP during all phases of the operation must be attended to as soon as possible and addressed to the satisfaction of all concerned interested and affected parties.

5.4 The holder of the EA must annually assess the environmental liabilities of the operation as contemplated in the Financial Provisioning Regulations, 2015 and address the shortfall on the financial provision submitted in terms of section 24P of NEMA.

5.5 The holder of the EA must, within 24 hours of incidents occurring, notify the Competent Authority of the occurrence or detection of any incident on the site, or incidental to the operation of the site, which has the potential to cause, or has caused pollution of the environment, health risks, nuisance conditions or water pollution.

5.6 The holder of the EA must, within 14 days, or a shorter period of time, if specified by the Competent Authority from the occurrence or detection of any incident referred to in condition 5.5, submit an action plan, which must include a detailed time schedule, and resource allocation signed off by top management, to the satisfaction of the Competent Authority of measures taken to –

5.6.1.1 Correct the impact resulting from the incident;

5.6.1.2 Prevent the incident from causing any further impact; and

5.6.1.3 Prevent a recurrence of a similar incident.

5.7 In the event that measures have not been implemented within 21 days of the incident referred to in condition 5.6, or measures which have been implemented are inadequate, the Competent Authority may implement the necessary measures at the cost of the holder of the EA.



6. SITE SECURITY AND ACCESS CONTROL

- 6.1 The holder of the EA must ensure effective access control on the site to reasonably prevent unauthorised entry. Signs indicating the risks involved in unauthorised entry must be displayed at each entrance.
- 6.2 Weather proof, durable and legible notices in at least three official languages applicable in the area must be displayed at each entrance to the Site. These notices must prohibit unauthorised entry and state the hours of operation, the name, address and telephone number of the holder of the EA and the person responsible for the operation of the site.

7. EMERGENCY PREPAREDNESS PLAN

- 7.1 The holder of the EA must maintain and implement an emergency preparedness plan and review it biennially when conducting audit and after each emergency and or major accident. The plan must, amongst others, include:

7.1.1 Site Fire

7.1.3 Spillage

7.1.3 Natural disasters such as floods

7.1.4 Industrial action

7.1.5 Contact details of police, ambulances and any emergency centre closer to the site.



- 7.2 The holder of EA must ensure that an up to date emergency register is kept during all phases of the operation. This register must be made available upon request by the department.

8. INVESTIGATIONS

- 8.1 If, in the opinion of the Competent Authority, nuisances or health risks may be or is occurring on the site, the holder of the EA must initiate an investigation into the cause of the problem or suspected problem.
- 8.2 If, in the opinion of the Competent Authority, pollution may be or is occurring, the holder of the EA must initiate an investigation into the cause of the problem or suspected problem. Such investigation must include the monitoring of the water quality variables, at those monitoring points and such frequency as may be specified by the Competent Authority.

- 8.3 Investigations carried out in terms of conditions 8.1 and 8.2 above must include the monitoring of the relevant environmental pollution, nuisance and health risk variables, at those monitoring points and such frequency to be determined in consultation with the Competent Authority.
- 8.4. Should the investigation carried out as per conditions 8.1 and 8.2 above reveal any unacceptable levels of pollution, the holder of the EA must submit mitigation measures to the satisfaction of the Competent Authority.

9. COMMISSIONING AND DECOMMISSIONING

- 9.1 The commissioning and decommissioning of individual activity within the overall listed prospecting activity must take place within the phases and timeframes as set out in EMPr.

10. SITE CLOSURE

- 10.1 The holder of EA must apply for a closure certificate in terms of section 43 of the MPRDA within 180 days of occurrence of lapsing, abandonment, cancellation, cessation, relinquishment and completion of development.
- 10.1.1 The application for closure indicated above must be submitted together with all relevant documents as indicated in section 43 of the MPRDA.
- 10.1.2 Vegetation growth must be retained around the proposed prospecting areas to protect the soil
- 10.1.3 No exotic plants may be used for rehabilitation purposes only indigenous plant can be utilized for rehabilitation purposes.
- 10.1.4 The holder of EA remains responsible for any environmental liability, pollution or ecological degradation, the pumping and treatment of extraneous water, compliance with the conditions of EA and the management and sustainable closure thereof until the Minister has issued a closure certificate in terms of Section 43 of the MPRDA. Where necessary the Minister may retain certain portion of financial provision for residual, health or environmental impacts that might be known in future.
- 10.1.5 The following must also be implemented as per the BAR and EMPr:
- 10.1.5.1 Removal of infrastructures (excavators, mobile diesel tank, mobile water tank and chemical toilet)
- 10.1.5.2 Backfilling of trenches.
- 10.1.5.3 Ensure that no foreign matter is left behind on the drill site

- 10.1.5.4 Refilling the sump required for the drilling activities, the plastic lining will be removed and disposed of in a registered landfill site and the soil returned for rehabilitation purposes.
- 10.1.5.5 The prospecting sites will be inspected for any signs of hydrocarbon pollution
- 10.1.5.6 Any identified soil polluted will be removed and disposed of in an environmental friendly manner
- 10.1.5.7 Any area compacted as a result of the drilling will be ripped and any ruts created by accessing or leaving the site for the trenching activity will be filled in to prevent erosion.
- 10.1.5.8 Re-vegetation in the affected areas, and
- 10.1.5.9 The applicable land owners will be requested to inspect the rehabilitated sites.

11. NEMA PRINCIPLES

The NEMA Principles (set out in Section 2 of NEMA, which apply to the actions of all organs of state) serve as guidelines by reference to which any organs of state must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), *inter alia*, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between organs of state through conflict resolution procedures; and
- the selection of the best practicable environmental option.



12. DISCLAIMER

The Department, in terms of the conditions of this environmental authorisation shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

13. RECOMMENDATIONS

In view of the above, the NEMA principles, compliance with the conditions stipulated in this EA, and compliance with the EMPr, the competent authority is satisfied that the proposed listed activity/ies will not conflict with the general objectives of Integrated Environmental Management stipulated in chapter 5 of NEMA, and that any potentially detrimental environmental impacts resulting from the listed activity/ies can be mitigated to acceptable levels. The authorisation is accordingly **granted**.

Your interest in the future of our environment is appreciated.

Kind Regards

A handwritten signature in black ink, appearing to read 'MA Mulaudzi', written over a dotted line.

A. MULAUDZI

REGIONAL MANAGER: MINERAL REGULATION

FREE STATE REGION

DATE 01/02/2019