



## **NEW KLEINFONTEIN GOLDMINE (PTY) LTD**

**(A SUBSIDIARY OF GOLD ONE GROUP LIMITED)**

### **EXTERNAL ENVIRONMENTAL AUDIT REPORT FOR THE HOLFONTein MINE, SPRINGS, GAUTENG**

**FOR THE PERIOD: FEBRUARY 2022 – MARCH 2024**

Prepared for:

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**DMRREF NO.: DMR REF. GP30/5/1/2/2(182) MR  
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## ACRONYMS

DMR / DMRE	Department of Mineral Resources / Department of Mineral Resources and Energy
DWA / DWS	Department of Water Affairs / Department of Water and Sanitation
EA	Environmental Authorisation
EC	Electrical Conductivity
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EMPr	Environmental Management Programme
EPRP	Emergency Preparedness and Response Plan
IAP	Interested and Affected Party
ICP-MS	Inductively Coupled Plasma-Mass Spectrometry
LOM	Life of Mine
NKGM	New Kleinfontein Gold Mine
NWA	National Water Act
PCD	Pollution Control Dam
ROM	Run of Mine
SANS	South African National Standards
SASS5	South African Scoring System Index
TCTA	Trans Caledon Tunnel Association
TDS	Total Dissolved Solids
TSF	Tailings Storage Facility
TSS	Total Suspended Solids
VEGRAI	Vegetation Response Assessment Index
WRD	Waste Rock Dump
WUL	Water Use Licence

## 1 GENERAL INFORMATION

### 1.1 Licence holder

<b>Company</b>	New Kleinfontein Goldmine (Pty) Ltd (NKGm)
<b>Site contacts</b>	Busisiwe Mthembu / Athabile Mrubata
<b>Email address</b>	<a href="mailto:Busisiwe.Mthembu@gold1.co.za">Busisiwe.Mthembu@gold1.co.za</a> / <a href="mailto:Athabile.Mrubata@gold1.co.za">Athabile.Mrubata@gold1.co.za</a>
<b>Site address</b>	Remaining Extent (RE) of the farm Holfontein IR, City of Ekurhuleni, near Springs, Gauteng Province, South Africa
<b>Physical address</b>	Corner, Cloverfield & Outeniqua Road, Eastvale, Springs, 1560, Gauteng
<b>Responsible Person</b>	Jon Hericourt (Senior Vice President Operations)
<b>Email address</b>	<a href="mailto:Jon.Hericourt@gold1.co.za">Jon.Hericourt@gold1.co.za</a>

### 1.2 Independent external auditor

<b>Company</b>	Prime Resources (Pty) Ltd
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<b>Professional affiliations</b>	ECSA   SACNASP   SAIMM   EAPASA   IAIAAsa
<b>Date of site visit</b>	26 March 2024
<b>Draft report issued</b>	8 May 2024
<b>Audit finalisation date</b>	29 May 2024

Prime Resources is a specialist environmental consulting firm providing environmental and related services and was established in 2003. Prime Resources was founded by Peter Theron (PrEng, SAIMM), who has over 30 years' experience in the field of environmental science and engineering.

Gené Main (Pr. Sci. Nat. and EASAPA registered), the Project Manager and Principal Scientist for the proposed project, has a M.Sc. (Botany) from the University of the Western Cape and 16 years' experience in the field of environmental science.


Stephen Tarlton is a Senior Environmental Scientist (Pr.Sci.Nat; SACNASP 115011), with an MSc focusing on plant conservation and ecology along with over ten years of consulting experience. He has expertise in environmental authorisations, monitoring and compliance auditing with experience in several fields including large infrastructure, mining and waste management.

### 1.3 Declaration of independence

As the appointed external auditor, Prime Resources (Pty) Ltd has no other beneficial interest in the Holfontein Project as pertains to the undertaking of this assignment other than fair remuneration in accordance with normal professional environmental consulting practice. The conclusions and opinions expressed in this report are entirely those of Prime Resources and are based wholly upon the information described throughout this report.


I, Stephen Tarlton of Prime Resources (Pty) Ltd, declare that:

- I will act as an independent auditor and that neither myself nor Prime Resources (Pty) Ltd has any business, financial, personal, or other interest in this project other than fair remuneration for undertaking services related to the environmental audit.
- I will undertake the services related to the audit in an objective manner, even if this results in findings and recommendations that are not favourable to our client.
- There are no circumstances that will compromise my objectivity and independence in undertaking this work.
- I have the necessary expertise and experience to conduct this environmental audit, including knowledge of the relevant legislation.
- I have not, and will not, engage in conflicting interests in the undertaking of the audit.
- All information furnished by me for the audit is true and correct at the time of compiling the report.

<b>Signed:</b>	 <b>Stephen Tarlton</b> Date: 8 May April 2024
<b>Role</b>	Auditor
<b>Position</b>	Senior Environmental Scientist
<b>Affiliations</b>	Pr.Sci.Nat. (Env. Sci.) No. 115011

I, Gené Main of Prime Resources (Pty) Ltd, declare that:

- I will act as an independent auditor and that neither myself nor Prime Resources (Pty) Ltd has any business, financial, personal, or other interest in this project other than fair remuneration for undertaking services related to the environmental audit.
- I will undertake the services related to the audit in an objective manner, even if this results in findings and recommendations that are not favourable to our client.
- There are no circumstances that will compromise my objectivity and independence in undertaking this work.
- I have the necessary expertise and experience to conduct this environmental audit, including knowledge of the relevant legislation.
- I have not, and will not, engage in conflicting interests in the undertaking of the audit.
- All information furnished by me for the audit is true and correct at the time of compiling the report.

<b>Signed:</b>	 <b>Gené Main</b> Date: 8 May April 2024
<b>Role</b>	Reviewer
<b>Position</b>	Principal Consultant
<b>Affiliations</b>	Pr.Sci.Nat. (Env. Sci.) No. 400370 EAPASA Registered, No. 1257

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## 1.4 Assumptions, uncertainties, and gaps in knowledge

- The findings recorded in this report are limited to the timeframe during which the audit was undertaken.
- Where insufficient evidence of compliance was provided, the condition was marked as partially or non-compliant until that evidence was produced. Where partial compliance was observed in the preceding audit, those conditions are considered long-standing and rated as non-compliant until fully addressed.
- No monitoring of environmental conditions was undertaken for this audit.

## 1.5 Disclaimer

Prime Resources has expressed due and diligent care to comprehensively evaluate the compliance of activities and operations undertaken at the project by the Holder with the stated licence-/s, standard-/s or authorisation-/s against which the audit was conducted, for the period under review. It is noted, however, that the audit relies on findings made during a single site inspection, substantiated with information supplied by the Holder for the period under review. It is assumed that all data provided by NKGM is true and correct. The possibility is acknowledged that areas of partial and-/or non-conformance were either not observed during the site inspection or did not come to light from a review of the data provided. The onus lies with those responsible to use the precautionary principle to address potential deviations or non-compliances that were not identified in this report and to implement all legislated and permitted license conditions.

The scope of this audit does not include a comprehensive legal, Occupational Health and Safety, or Mine Health and Safety compliance audit.

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## **2 INTRODUCTION**

### **2.1 Background and location**

The Holfontein Project Environmental Impact Assessment (EIA) (including Environmental Management Programme - EMPr) was approved and Environmental Authorisation (EA) issued by the Department of Mineral Resources and Energy (DMRE) on 24 August 2016.

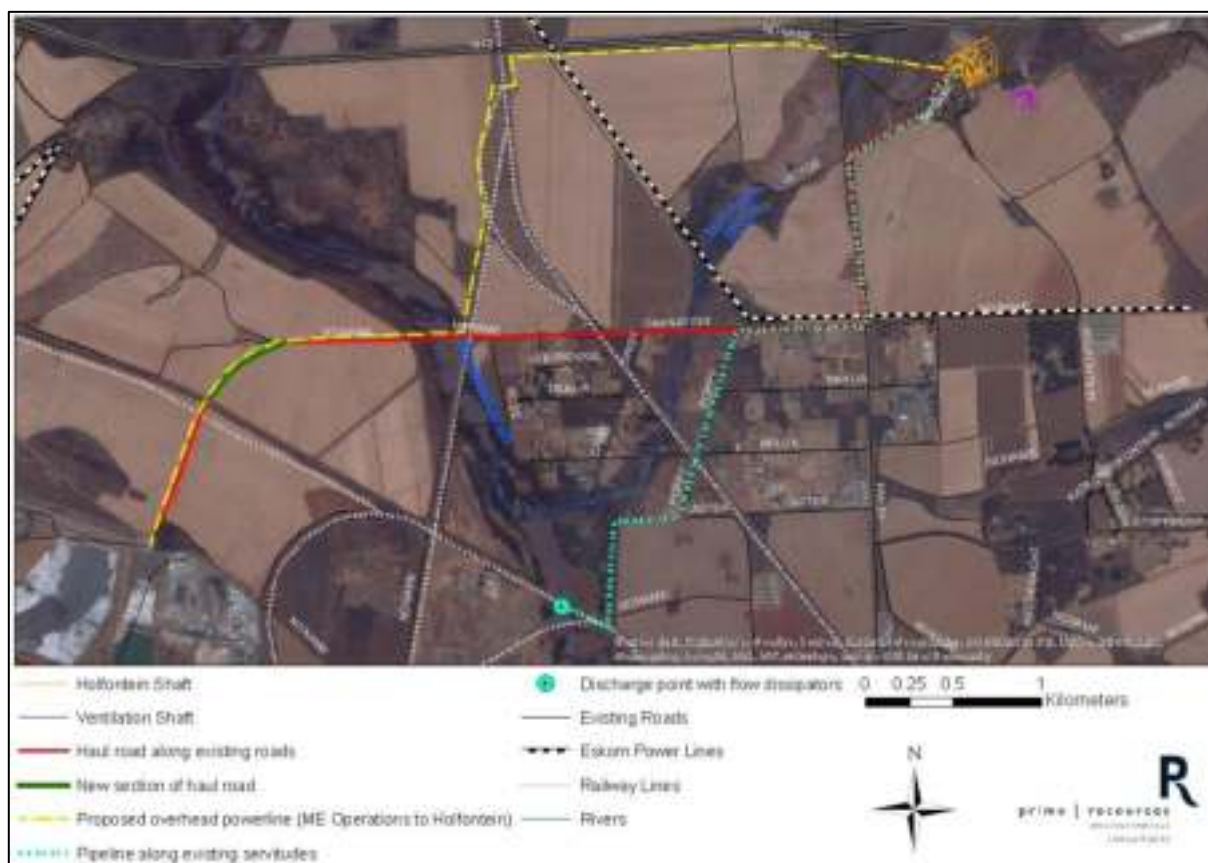
The Holfontein Project is located close to the existing Modder East (ME) Operations in Springs, Ekurhuleni (Figure 1). The purpose of the Holfontein Project is to supplement the drop in production once the New Kleinfontein Goldmine (NKGM) ME operations tonnage profile begins to decline. Holfontein has an existing historical shaft, last mined in the 1940s, and no mining activities are currently occurring on site. No other mining infrastructure is located on site.

The LoM will consist of two years of construction and development, and eight years of gold production. A further period of six months to a year is assumed for decommissioning and closure. After the operations are complete, decommissioning will commence.



Figure 1. Holfontein location





**Figure 2. Holfontein preferred final layout**

## **2.2 Infrastructure and activities**

### **2.2.1 Proposed infrastructure and activities**

The areas where surface infrastructure and access roads are to be located will be cleared of vegetation and the topsoil stripped and stockpiled for use in rehabilitation and closure and the end of the project life.

The mine will be operated as a section of ME operations with services and support being provided by ME. Primary access will be by means of the re-equipped Holfontein shaft and the construction of a ventilation shaft (Figure 3). Overburden and ore will be hoisted via the shaft and transported to ME operations by road.

Potable water at the containerised office and ablutions will be trucked from ME operations and stored in a potable water storage container. Excess groundwater produced at Holfontein will be pumped to above-ground surface water tanks, after which it will be pumped to a water treatment facility and discharged to the Blesbokspruit via a pipeline (the pipeline is to run within the road reserve). All sludge or brine resulting from the water treatment facility will be transported back to the ME TSF (or as directed by DWS) via road.

A salvage yard, timber yard and laydown area will be constructed on site. There will be a designated area for the temporary storage of waste, which will be collected, separated and disposed of at a licensed landfill facility. The waste storage area will be bunded, have an impermeable surface, have a sump, and will be covered with a roof. The volumes applicable to the identified waste stream will fluctuate with the requirements of the mine. There will be no long-term storage of any waste materials on site.

All dirty water from the dirty water catchment (entire surface infrastructure area) will be diverted to a pollution control dam. Containerised toilets will be provided on surface. A sewage treatment plant will be installed. Sewage treatment plant effluent will be treated in the water treatment facility, if required, prior

to discharge to the Blesbokspruit via a pipeline. All brine will be transported to the ME TSF (or as directed by DWS) via road.

Electrical power will be sourced from ME operations. Two 6 MVA lines, will be constructed between ME operations and the proposed substation building at the Holfontein Project adjacent to the proposed ventilation shaft.

The haul route consists of 3 km of existing gravel road and 3 km of existing tarmac surface. A gravel access road will be constructed from Holfontein Road to the Holfontein shaft area, and a gravel portion of haul road will be constructed in proximity to the ME Operations. The river crossing over the Blesbokspruit and its associated wetland will be upgraded to accommodate haul trucks. A series of culverts will be constructed across the floodplain wetland.

For the operational phase, employees will be sourced from the existing ME operations. No new employment opportunities will be created. Mine employees will be transported by bus from ME operations, where there are existing change rooms etc.

### **2.2.2 Existing infrastructure and ongoing activities**

Murray and Roberts (M&R) is the on-site contractor. The following infrastructure was existing on-site at the time of the audit:

- 2 x winders (one large and a small one for emergencies)
- 2 x winder house
- 1 x temporary headgear
- Containerised lamproom
- Emergency generator (placed on historical concrete hardstand but not bunded)
- Substation connected to Eskom electricity supply.
- Containerised offices
- Containerised ablutions (3 x showers and 3 x toilets) connected to a below ground conservancy tank.
- 2 x chemical toilets
- Workshop built on an existing concrete hardstand with a container for stores.
- Diesel stored in tanks on the ground or bunded using historical infrastructure.
- Chemicals (paint, oil, etc.) in a roofed and fenced area which is not bunded.
- Waste bins for general waste, a skip, and spill kits. (The external contractor BJB Scrap removes the waste from the site - disposal certificates not kept on site).
- Potable water is delivered to site and stored in a tank.
- Lighting is present around the site for use at night.
- Signage was present that prohibits unauthorised entry.
- The area is secured with a fence and security guards requiring sign-in on entry (Appendix 3 Photos 1 and 16).

Activities on site at the time of the audit:

- Dewatering at ~5 ML per day (water level within the shaft was at ~328 m below surface); a second pump had been installed but was not in use at the time of the audit.
- Operating hours are limited to daylight hours.

- 
- Refurbishment activities include replacing damaged/ old wood from underground workings with steel supports. Wood brought to surface is checked for radiation before it is removed from site and disposed of or donated to the community for firewood (if free from radiation).
  - Point source noise monitoring is carried out.
  - Training includes inductions and daily safety meetings.

NKGM indicated that the above activities and infrastructure are related only to the dewatering activities for prospecting purposes, and the mining project has not commenced.



Figure 3. Holfontein preferred final layout (1:3 000) (as per EMPr, 2015)

### 3 LEGAL FRAMEWORK

#### 3.1 NEMA (1998), as amended and EIA Regulations (2014), as amended

The Competent Authority (CA) for this Project is the Department of Mineral Resources and Energy (DMRE), Gauteng Regional Office, regulating in terms of the National Environmental Management Act (No. 107 of 1998), as amended (NEMA) and the 2014 Environmental Impact Assessment (EIA) Regulations (GNR982) as amended.

EIA Regulations 34 to 37 (GNR982 of 2014 as amended) are relevant to the auditing of the Environmental Authorisation (EA) and Environmental Management Programme (EMPr) and are summarised below.

##### *Regulation 34. Auditing of compliance with EA, EMPr and closure plan*

- (1) The holder of an EA must, for the period during which the EA, EMPr and closure plan in the case of a closure activity, remain valid –
  - (a) ensure that compliance with the conditions of the EA, EMPr and closure plan, is audited; and
  - (b) submit an environmental audit report (EAR) to the DMRE
- (2) The EAR must –
  - (a) be prepared by an independent person with the relevant environmental auditing expertise
  - (b) provide verifiable findings, in a structured and systematic manner, on –
    - (i) performance against and compliance with the provisions of the EA, EMPr and closure plan in the case of a closure activity; and
    - (ii) the ability of the measures contained in the EMPr and closure plan, to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the Table 1; and
  - (c) be conducted and submitted to the CA at intervals as indicated in the EA.
- (3) The EAR must determine –
  - (a) the ability of the EMPr and closure plan to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity on an ongoing basis, and with the closure of the facility; and
  - (b) the level of compliance with the provisions of EA, EMPr and closure plan.
- (4) Where the findings of the EAR indicate –
  - (a) insufficient mitigation of environmental impacts; or
  - (b) insufficient levels of compliance with the EA, EMPr or closure plan;the holder must submit recommendations to amend the EMPr or closure plan in order to rectify the shortcomings identified in the EAR.
- (5) When submitting recommendations, such recommendations must have been subjected to a public participation process, as agreed with the CA and as appropriate to bring the proposed amendment/s to the attention of potential and registered interested and affected parties (IAPs), for approval by the CA.
- (6) Within 7 days of submitting of an EAR to the CA, the holder of an EA must notify all potential and registered IAPs of the submission of that report, and make such report immediately available –
  - (a) to anyone on request; and
  - (b) on a publicly accessible website, where the holder has such a website.
- (7) An EAR must contain all information set out in Appendix 7 to these Regulations.

**Table 1. Contents of an Environmental Audit Report (EAR) in terms of Appendix 7 of the EIA Regulations (2014)**

Ref	Requirement	Section of report
3(1)(a)	The environmental audit report must contain details of - i. The independent person who prepared the environmental audit report; and ii. The expertise of the independent person that compiled the environmental audit report	Section 1.2 and 1.3
3(1)(b)	A declaration that the independent auditor is independent in a form as may be specified by the competent authority	Section 1.3
3(1)(c)	An indication of the scope of, and the purpose for which, the environmental audit report was prepared	Section 2
3(1)(d)	A description of the methodology adopted in preparing the environmental audit report	Section 4.3
3(1)(e)	An indication of the ability of the EMPr, and where applicable, the closure plan in the case of a closure activity, to i. Sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking and closure of the activity on an ongoing basis ii. Ensure compliance with the provisions of the EA, EMPr, and where applicable, the closure plan	Section 4.5 and 5
3(1)(f)	A description of any assumptions made, and any uncertainties or gaps in knowledge	Section 1.4
3(1)(g)	A description of any consultation process that was undertaken during the course of carrying out the environmental audit report	Section 4.3.2
3(1)(j)	A summary and copies of any comments that were received during any consultation process	Section 4.3.2
3(1)(k)	Any other information requested by the competent authority	NA

*Regulation 35. Amendment of EMPr or closure plan as a result of an audit*

- (1) The CA must consider the EAR and amended EMPr and closure plan, and approve such amended EMPr and amended closure plan, if it is satisfied that it sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity, or in the case of a closure activity the closure of the facility, and that it has been subjected to an appropriate public participation process.
- (2) Prior to approving an amended EMPr or closure plan, the CA may request such amendments to the EMPr or closure plan as it deems appropriate to ensure that the EMPr sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity or to ensure that the closure plan sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the closure of the facility in the case of a closure activity.

*Regulation 36. Other amendments of EMPr or closure plan*

- (1) Where an amendment is required to the impact management actions of an EMPr, such amendments may immediately be effected by the holder and reflected in the next EAR submitted as contemplated in the EA and regulation 34.
- (2) Where an amendment to the impact management outcomes or objectives of an EMPr or an amendment of the closure objectives of a closure plan in the case of a closure activity is required before an audit is required in terms of the EA, an EMPr or closure plan may be amended on application by the holder of the EA.

*Regulation 37. Amendment of EMPr or closure plan on application by holder of EA*

- (1) Where the holder of an EA identifies amendments to the impact management outcomes or objectives of the EMPr or amendments to the closure objectives of the closure plan before an audit is required

in terms of the EA, such holder must notify the CA of its intention to amend the EMPr or closure plan at least 60 days prior to submitting such amendments to the EMPr or closure plan to the CA for approval.

- (2) The holder of the EA must invite comments on the proposed amendments to the impact management outcomes or objectives of the EMPr or amendments to the closure objectives of the closure plan from potential IAPs, including the CA, by using any of the methods provided for in the Act for a period of at least 30 days.
- (3) Reasonable alternative methods, as agreed to by the CA, to invite comments may be used in those instances where a person desires but is unable to participate in the process due to –
  - (a) illiteracy
  - (b) disability, or
  - (c) any other disadvantage.
- (4) The invitation to comment must include an indication that any comments to the proposed amendments must be submitted to the holder of the EA within 30 days of such invitation.
- (5) If no comments are received, the holder of the EA may amend the EMPr or closure plan in accordance with its intention and submit the amended EMPr or closure plan to the CA for approval within 60 days of inviting comments.
- (6) Prior to approving an amended EMPr or closure plan contemplated in sub-regulation (5), the CA may request such amendments to the EMPr or closure plan as it deems appropriate to ensure that the EMPr sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity or to ensure that the closure plan sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the closure of the facility.
- (7) If comments are submitted to the holder of the EA, such holder must submit such comments to the CA, including responses to such comments, together with the proposed amended EMPr or closure plan.
- (8) The CA must, within 30 days of receipt of the information consider such information and issue a decision to approve the amended EMPr or closure plan or not.
- (9) After the CA has reached a decision, the CA must, within 5 days –
  - (a) provide the holder of the EA with its decision, including the amended EMPr or closure plan if the decision was to approve the amended EMPr or closure plan, as well as reasons for the decision
  - (b) draw the attention of the holder of the EA to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations; and
  - (c) instruct the holder of the EA to, within 14 days of the date of the decision, inform the parties who submitted comments on the decision, to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations.

## 4 ASSESSMENT OF COMPLIANCE

Prime Resources was appointed by NKGGM to conduct the external EA and EMPr compliance audit. According to Regulation 34 of the NEMA EIA Regulations (2014), the environmental audit must be conducted and submitted to the CA at intervals as indicated in the EA. The Holfontein EA requires that an EAR be compiled by an independent specialist and submitted to the DMRE biennially (every two years), as required in terms of Section 24Q of the NEMA.

The closure plan was not audited during this process as the project has not commenced and there are no project changes relevant to the closure plan at this stage. Closure activities have not been applied for or granted as part of the EA.

### 4.1 Objectives

The EAR is focussed on compliance with measures and conditions of the:

- Environmental Impact Assessment Report and Environmental Management Programme Report for Holfontein Project. August 2016. DMRE reference FS 30/5/1/2/2/1036 MR.
- Environmental Authorisation issued to New Kleinfontein Goldmine on 29 August 2016 in terms of the NEMA as amended, the EIA Regulations, 2014, for activities related to an amendment to a mining right in terms of Section 102 of the MPRDA. EA Ref GP30/5/1/3/2/1(182) EM.

In terms of Appendix 7 of the NEMA EIA Regulations (2014), the EAR must provide recommendations regarding the need to amend the EMPr. The objectives of the EAR are to –

- Report on the level of compliance with the conditions of the EA and the EMPr, and the extent to which the avoidance, management and mitigation measures provided for in the EMPr achieve the objectives and outcomes of the EMPr
- Identify and assess any new impacts and risks
- Evaluate the effectiveness of the EMPr
- Identify shortcomings in the EMPr, and
- Identify the need for any changes to the measures provided for in the EMPr.

### 4.2 Content and period applicable to this assessment

Table 1 outlines the required information to be provided in an EAR as per Appendix 7 of the EIA Regulations. The audit review period for this assessment is February 2022 to March 2024, the previous audit was compiled in March 2022.

### 4.3 Methodology

The following was used as a procedure for the compliance assessment:

- Creation of a checklist of all commitments and conditions indicated in the EMPr and EA
- Consideration of compliance with the commitments and conditions
- Site visit and interviews with mine personnel where necessary to confirm the assessment.

#### 4.3.1 Site visit

A physical site inspection was undertaken on 26 March 2024 by Louise Jones and Bronwyn Grover from Prime Resources, and Athabile Mrubata from NKGGM. Photographs from the site visit can be found in Appendix 3.



### 4.3.2 Consultation and comments

No consultation with Interested and Affected Parties (IAPs) was undertaken during the process of compiling this Environmental Audit Report (EAR). No comments were therefore received from IAPs for inclusion in the report.

NKGM is aware of consultation requirements set out in EIA Regulations 34.6 and 7 of GNR982 and will make this EAR available for public comment as prescribed.

### 4.3.3 Information requested by the competent authority

The CA has not requested any specific information (in terms of Section 3.1(k) of Appendix 7 of the EIA Regulations) to be included in this report.

## 4.4 Rationale for scoring system

The performance of the site is audited in terms of a rating system, with the final score calculated and presented as a percentage. An average compliance score is determined from which the overall compliance percentage is determined.

Where an item is in full compliance with a particular condition, the maximum score is awarded, i.e., 2 / 2 (C). When the site only partially complies with a condition, half of the maximum score is awarded, i.e., 1 / 2 (PC). When the site does not comply with a condition at all, zero points are awarded (NC). If a condition is not pertinent or currently applicable, compliance with that condition will be scored as Not Applicable or Not Audited (NA) and no points are allocated or included in the final score.

All conditions and commitments are valued equally; no weighting has been taken into account. It should be noted that because the project was still in its pre-construction phase, very few management measures and conditions were applicable, effectively assessed, and scored.

An update of the partial and non-compliances identified in the March 2022 EA and EMPr audit is provided in Table 3 and Table 4 respectively.

## 4.5 Audit findings

Overall compliance in terms of the EA and EMPr is shown in Table 2.

**Table 2. Overall compliance in terms of the EA and EMPr**

Description	EA	EMPr
<b>Σ Total Compliance Score</b>	98	77
<b>No. Conditions Audited</b>	62	56
<b>Average Compliance Score</b>	1.58	1.38
<b>Compliance Percentage (%)</b>	<b>79%</b>	<b>69%</b>

Partial or non-compliant conditions for the current audit of the EA and EMPr are summarised in Table 5 and Table 6, respectively. Refer to Appendix 1 and 2 for the full compliance audit checklists.

**Table 3. Update on previous partial and non-compliances in the EA compliance audit**

No.	EA condition	2022	2024	Comments
Site specific EA conditions				
2	The civil engineering designs for the Pollution Control Dam, and Sewerage and Mine Wastewater Treatment Plants (including pipeline outlet) must be approved and a water use authorisation must also be issued by the DWS prior to the commencement of such construction activities.	PC	C	A WUL has been granted by the DWS (DWS Ref. 08/C21D/CI/8500) and a WUL amendment was issued on 18 May 2023. No mining water uses have commenced. Civil engineering designs for the dam were submitted as part of the WUL application. A temporary conservancy tank for sewage was in the process of being installed at the time of the audit to allow for ablutions for the team undertaking dewatering at the site. The treatment and discharge of abstracted groundwater is ongoing as part of the proposed further prospecting activities. Permanent sewage reticulation and water treatment plant still need to be investigated further.
8	Plans with timeframes addressing bullet points 5, 6 and 7 must be submitted to this Department for approval within one year after issuance of this environmental authorisation.	NC	NC	Authorisation was granted in 2016. However, construction has not commenced. <b>It is recommended that this condition be amended so that the Licensee should submit plans prior to the commencement of construction activities on site.</b>
Department standard EA conditions				
1. Scope of Authorisation				
17	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.	PC	PC	The contact person on the EA is noted as Evan Cook and the contact email address is <a href="mailto:Ntsiki.Kgame@gold1.co.za">Ntsiki.Kgame@gold1.co.za</a> . These contact details (including the addresses) are outdated and the DMRE must be notified of all changes.
5. Reporting to the Department				
79	5.1 The holder of the EA must submit an Environmental Audit Report to this Department biennially and such report must be done by a qualified Environmental Assessment Practitioner and the audit must specify whether conditions of this EA and an approved EMPr/closure plan are adhered to:	PC	C	This report serves as the second Environmental Audit Report. It covers the period from February 2022 to March 2024.
7. Emergency preparedness plan				
	7.1 The holder of the EA must maintain and implement an emergency preparedness plan and review it bi-annually when conducting audits and after each emergency and or major accident. The plan must, amongst others, include:	-	PC	An Emergency Preparedness and Response Plan (EPRP) is included in the EMPr, and it is understood that a standalone EPRP has been developed for the site, however it was not provided for review. <b>The EPRP should be in place to address activities being undertaken on site and should be available at the site.</b>
97	7.1.4 Industrial action, and	NC	NC	The EPRP does not address industrial action.
98	7.1.5 Contact details of police, ambulances, and any emergency centre closer to the site	NC	NC	The EPRP does not contain contact details for the local police, ambulance or emergency centre

**Table 4. Update on previous partial and non-compliances in the EMPr compliance audit**

No.	EMPr commitment	2022	2024	Comments
Wetland management measures				
Construction Phase				
222	No construction activities must commence within 500 m from a wetland prior to authorisation thereof by DWS in the form of an authorised WUL.	PC	C	Construction has not commenced. The Licensee does however have an authorised WUL allowing for construction within 500 m of a wetland.

**Table 5. Findings of the 2024 EA compliance audit (reference to partial and non-compliance only)**

No.	Condition	2024	Compliance
		Comments / Recommendations	
Site specific EA conditions			
6	Ground stability must be assessed by a qualified specialist for any geological strata with dolomitic aquifers which have been dewatered as a result of the mining activities and provide measures to prevent any sinkhole development or seismic events on such land.	Construction of the mining project has not yet commenced. J.J. Geyser (a Rock Engineer) of Open House Management Solutions provided a Note of Record (June 2018) which concludes that the recommended support methods to be employed will ensure there is no surface subsidence as a result of the activities undertaken by NKGM. Measures to prevent any sinkhole development or seismic events due to dewatering have not been proposed.	PC
8	Plans with timeframes addressing bullet points 5, 6 and 7 must be submitted to this Department for approval within one year after issuance of this environmental authorisation.	Authorisation was granted in 2016. However, construction has not commenced. It is recommended that this condition be amended so that the Licensee should submit plans prior to the commencement of construction activities on site.	NC
10	All materials with lubricants, fuel and hydraulic fluid must be stored in a demarcated area with bund walls to contain spillages and avoid contamination of groundwater.	The mining project has not commenced, however lubricants and fuel for the dewatering project are stored on site in a demarcated area. In several instances there is no bunding for these materials (Appendix 3, Photos 4, 13 and 14). It is recommended that all hazardous substances be stored as per the MSDS and the EA.	PC
Department standard EA conditions			
1. Scope of Authorisation			
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.	The contact person on the EA is noted as Evan Cook and the contact email address is <a href="mailto:Ntsiki.Kgame@gold1.co.za">Ntsiki.Kgame@gold1.co.za</a> . These contact details (including the addresses) are outdated and the DMRE must be notified of all changes.	PC
3. Commencement of the activity (ies)			
3.2	This EA must be provided to the site operator and the requirements thereof must be made fully known to him or her	M&R has been appointed as the contractor to undertake construction activities for the dewatering project. While the EA and EMPr were not available on site at the time of the audit, it is understood that the Contractor has been made aware of the requirements of the EA. The site operator should have a copy of the EA and EMPr on site.	PC

No.	Condition	2024	Compliance
		Comments / Recommendations	
3.18	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 for 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	Small quantities of hazardous substances were stored on site at the time of the audit and a spill kit was located alongside the hazardous store. The hazardous store had a roof and could be secured however, it was not bunded (Appendix 3, Photo 4). <b>It is recommended that hazardous substances be stored on a concrete lined surface with appropriate bunding.</b>	PC
3.29	The waste storage site must have a firm, impenetrable, chemical resistant floor and a roof to prevent direct sunlight and rain water from getting into contact with the waste.	A skip was present on site containing waste and areas were set aside for scrap / salvage material. These areas were not equipped with floors and roofs to prevent water, rain, and sunlight from coming in contact with waste. <b>All waste should be removed within three months. The final waste storage and handling areas have not been constructed. Adequate waste storage facilities should be constructed.</b>	PC
3.30	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.	Several diesel tanks were suspended over a concrete "bund" which would act to contain a spill resulting from tank failure. Other diesel tanks were placed on concrete hardstand (Appendix 3, Photos 13 and 14). <b>It is recommended that all hydrocarbons and hazardous substances be stored within bunds which have adequate capacity (see requirements of SANS 10089).</b>	PC
<b>4. Management of activity (ies)</b>			
4.1	A copy of the EA and EMPr must be kept at the property or on site office where the activity (ies) will be undertaken. The IEA 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 IEA who works or undertakes work at the property (ies).	A copy of the EA and EMPr were not available on site at the time of the audit. <b>It is recommended that a hard copy of the EA and EMPr be kept on site for reference.</b>	NC
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.	M&R has been appointed as the contractor to undertake construction activities for the dewatering project. While the EA and EMPr were not available on site at the time of the audit, it is understood that the Contractor has been made aware of the requirements of the EA.	PC
4.11	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 Department 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	Noted. The project description has not changed, only the activities specified in the Annexure 1 of the EA and those detailed in the EMPr are proposed. However, construction activities are currently being undertaken for a dewatering project that has been approved by DWS via a WUL. No additional listed activities have or are expected to occur on site, therefore no amendment application was submitted to the Department. <b>It is recommended however that the Department be notified about the dewatering project.</b>	PC
4.13	The holder of EA must ensure that the name and contact details of the ECO are made available to the Regional Manager within 30 days of commencement. The holder of IEA must also ensure that an ECO is always available on site to ensure	The mining project has not commenced. <b>However, construction is underway for the dewatering project and the name and contact details of the ECO should be made available to the Regional Manager.</b>	PC

No.	Condition	2024	Compliance
		Comments / Recommendations	
	that activity (ies) at all times comply with the issued EA and approved EMPr.		
4.14	The ECO must:		
4.14.1	Keep and maintain a detailed incidents register (including any spillages of fuels, chemicals or other material)	The mining project has not commenced. However, there are preparatory works taking place on site for the dewatering project. Apart from the water quality monitoring undertaken for the dewatering project, no environmental monitoring or reporting is currently taking place. <b>It is recommended that the ECO be appointed and commence monitoring and reporting duties.</b>	PC
4.14.2	Keep a complaint register on site indicating the complaint and how the issues were addressed, what measures were taken and what preventative measures were implemented to avoid re-occurrence of complaints		PC
4.14.3	Keep records relating to monitoring and auditing on site and avail them for inspection to any relevant authorised officials		PC
4.14.4	Keep copies of all environmental reports submitted to the Department		PC
4.14.5	Keep the records of all permits, licences and authorisations required by the operation		PC
4.14.6	Compile a monthly monitoring report and make it available to the Department if requested		PC
6. Site security and access control			
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	Weatherproof, durable, and legible notices in three official languages were displayed at the entrance to the site prohibiting unauthorised entry. The hours of operation, the name, address, and telephone number of the person responsible for the operation of the site are not included in the signage. <b>It is recommended that the prescribed signage be erected.</b>	PC
7. Emergency preparedness plan			
7.1	The holder of the EA must maintain and implement an emergency preparedness plan and review it bi-annually when conducting audits and after each emergency and or major accident. The plan must, amongst others, include:	An Emergency Preparedness and Response Plan (EPRP) is included in the EMPr and has not been revised. <b>Activities are taking place on site and a standalone EPRP should be in place and reviewed to account for identified risks prior to construction.</b>	PC
7.1.4	Industrial action, and	The EPRP does not address industrial action as the site is not yet operational.	NC
7.1.5	Contact details of police, ambulances, and any emergency centre closer to the site	The EPRP does not contain contact details for the local police, ambulance, or emergency centre.	NC

**Table 6. Findings of the 2024 EMPr compliance audit (reference to partial and non-compliance only)**

No.	Condition	2024	Compliance
		Comments / Recommendations	
Water management measures			
Construction Phase			
57	Ensure that the water treatment facility is operational to meet DWS water quality specifications before dewatering commences. Measure EC of water to be discharged daily, when EC begins to deteriorate the water treatment facility must be commissioned.	The mining project has not yet been constructed but there is dewatering taking place via a separate WUL, to undertake further prospecting. This water is being monitored regularly. The treatment plant / facilities are not yet in place to be able to treat non-compliant water. <b>It is recommended that the water treatment options as required in the dewatering WUL are available should the water require treatment prior to discharge.</b>	PC
58	Ensure that lay down area/salvage yard, where corroded materials removed from the shaft are to be placed, is fitted with drains to the PCD prior to the commencement of refurbishment.	Salvaged yard material is placed in areas without drains and the PCD has not yet been installed (Appendix 3, Photos 6, 8 and 15). <b>It is recommended that areas used for the storage of salvaged materials are appropriately designed to contain any contamination from the site. Prior to construction of the mining project, the salvage yard needs to be fitted with drains to the PCD. Run-off from laydown / salvage yards may not be allowed to enter watercourses.</b>	PC
Construction and Operation Phase			
88	Inspect the Blesbokspruit downstream of the discharge point for on a monthly basis in the summer months for excessive growth of aquatic vegetation, which may impede flow. If excessive growth, which is impeding flow, is noted implement cutting of vegetation.	The mining project has not commenced. Excessive growth of vegetation within the Blesbokspruit, which may impede flow, was not observed during the audit. Appendix II Condition 3.2.5 of the dewatering WUL requires regular checks of the downstream culverts to ensure they are not blocked by debris or vegetation. The 2024 external audit of the dewatering WUL indicates that culvert inspections have not taken place. <b>Monthly inspections of the Blesbokspruit should be undertaken.</b>	PC
Noise management measures			
Construction, Operation and Decommissioning			
106	Isolate compressors and generators in separate acoustically treated enclosures or buildings.	The onsite generator (which only operates during power cuts) enclosure was not acoustically treated and the doors remained open to allow sufficient airflow for cooling. <b>Acoustically isolate generators in enclosures or buildings.</b>	PC
Socio-economic management measures			
Prior to Construction Phase			

No.	Condition	2024	Compliance
		Comments / Recommendations	
112	<p>A Stakeholder Engagement Plan (SEP) and Grievance Mechanism must be drawn up for the Holfontein Project. The main objectives of a SEP are as follows:</p> <ul style="list-style-type: none"> <li>• Identification of stakeholders / IAPs.</li> <li>• Disclosure of planned project activities.</li> <li>• Identification of concerns and grievances from stakeholders.</li> <li>• Harnessing of local expertise and knowledge from IAPs.</li> <li>• Ongoing disclosure of project activities and monitoring results.</li> <li>• Response to grievances and enquiries of stakeholders (via a Grievance Mechanism).</li> </ul>	<p>The mining project has not commenced. <b>The SEP should be developed and implemented for use during the dewatering project. It can be updated specifically for the mining project as needed before construction commences.</b></p>	PC
113	<p>It is recommended that NKGm establish a Community Engagement and Security Forum (CESF) to ensure that stakeholders are notified and consulted throughout the LoM:</p> <ul style="list-style-type: none"> <li>• Ensuring that the authority and IAP contact details are updated.</li> <li>• Informing IAPs of the establishment of the CESF and providing them with the opportunity to join the forum, attend meetings, and receive any relevant information.</li> <li>• Facilitating meetings during construction and operation, taking minutes of these meetings, and distributing meeting minutes prior to the next meeting (it is recommended that these meetings be held every second month).</li> <li>• Distributing information relevant to community health and safety to stakeholders (including environmental monitoring data, the Emergency Preparedness and Response (EPR) Plan, Grievance Mechanism (GM), issues and concerns raised).</li> <li>• Maintaining communication channels throughout the life of the project.</li> <li>• Drafting an action plan to enable the affected communities and relevant government agencies to understand the potential safety and security impacts and disseminating the plan to IAPs prior to construction.</li> <li>• Timeously communicating any changes to the proposed project, impacts and/or mitigation and monitoring methods, and ensuring that proper legal procedures will be followed.</li> </ul>	<p>The mining project has not commenced. <b>The CESF should be developed and implemented for use during the dewatering project. It can be updated specifically for the mining project as needed before construction commences.</b></p>	PC

No.	Condition	2024	Compliance
		Comments / Recommendations	
	<ul style="list-style-type: none"> <li>Maintaining an accident register and compiling accident reports (for the haul route). This accident register should be submitted to the CESF on a monthly basis.</li> </ul>		
<b>Construction, Operation and Decommissioning</b>			
116	NKGM personnel and contractors must be familiar with relevant environmental and social commitments within the authorised EMPr. Managers will need to be appropriately trained and familiarised with respect to the EMPr in order to possess the skills necessary to impart EMPr requirements to their subordinates. All personnel involved in the construction and operation of the project must undergo a training and awareness programme on health, safety, environmental and social requirements and obligations prior to commencing activities.	The mining project has not commenced. Activities were being undertaken for the dewatering project. No evidence was provided that awareness training has been undertaken on site. <b>Relevant training material must be compiled, and training must be undertaken with personnel and contractors responsible for managing the site.</b>	PC
117	<p>Community Health and Safety training must be conducted to assist NKGM in raising awareness with the local community (Holfontein Community and Welgedacht SH) regarding project-associated risks. The objectives of the community health and safety training will be:</p> <ul style="list-style-type: none"> <li>Raising awareness associated with all project activities.</li> <li>Identification of health concerns and associated behaviour, including HIV/AIDS awareness, hygiene, related to potential sewage / chemical toilet spills; water quality and use.</li> <li>Encouraging the use of safety initiatives undertaken by NKGM, including fencing and creation of a pedestrian walkway.</li> <li>Identification of dangerous / hazardous site activities, including haul roads, PCD, discharge point and pipeline, and the shafts.</li> </ul>	The mining project has not commenced. <b>Community Health and Safety training material must be compiled and implemented for the dewatering project. The material can be updated as needed for the mining project prior to construction.</b>	PC
119	The SEP must be implemented. Ongoing stakeholder engagement will play a key role in monitoring socio-economic impacts and the effectiveness of mitigation and management strategies. Remedial actions must be taken where the mitigation and management strategies are ineffective.	The mining project has not commenced. <b>The SEP should be developed and implemented for use during the dewatering project. It can be updated specifically for the mining project as needed before construction commences.</b>	PC
120	The Grievance Mechanism should be monitored on an ongoing basis and any grievances should be adequately responded to in a timeous fashion.	The mining project has not commenced. <b>The Grievance Mechanism should be developed and implemented for use during the dewatering project. It can be updated specifically for the mining project as needed before construction commences.</b>	PC
121	The CESF should be engaged with on an ongoing basis and remedial actions taken in response to any issues raised through this avenue.	The mining project has not commenced. <b>The CESF should be formed and engaged with during the dewatering project. It can be updated specifically for the mining project as needed before construction commences.</b>	PC



No.	Condition	2024	Compliance
		Comments / Recommendations	
122	The security policy must be adhered to and updated with remedial actions for any security issues which arise.	The mining project has not commenced. <b>The security policy should be developed and implemented for use during the dewatering project. It can be updated specifically for the mining project as needed before construction commences.</b>	PC
<b>Biodiversity management measures</b>			
<b>Construction and Operation Phase</b>			
159	Environmental awareness training must be implemented as per the environmental awareness plan educating personnel and contractors on how to interact with the environment.	The mining project has not commenced. Activities were being undertaken for the dewatering project. No evidence was provided that awareness training has been undertaken on site. <b>Relevant training material must be compiled, and training must be undertaken with personnel and contractors responsible for managing the site.</b>	PC
160	Hydrocarbons must be managed according to the Hydrocarbon Management Plan to avoid contamination of the environment.	Hydrocarbons are stored and handled on site. The storage areas are temporary but not all storage areas were banded at the time of the audit (Appendix 3, Photos 4 and 14). <b>It is recommended that hydrocarbons must be managed according to the Hydrocarbon Management Plan and the hydrocarbon management plan be audited internally on a regular basis.</b>	PC
165	The development of new electrical infrastructure poses a collision risk to avifauna and volant (flying) mammals (i.e. bats). A possible high collision risk area within the Holfontein study area could be where the lines cross the Blesbokspruit as it is possible that this area is used as a flight corridor for water fowl moving to and from the Blesbokspruit IBA. It is recommended that an ECO monitors the newly constructed power lines once a week for bird collisions associated with the overhead lines. It is important to identify which bird species are affected by the collisions in the long term to ensure that wires are marked appropriately (in response to the collision data) and all the data which has been collected on bird collisions must be submitted to the Endangered Wildlife Trust and Birdlife South Africa.	Power transmission lines to the site have been installed and the risk to flying avifauna and mammals has therefore been realised. No monitoring of bird or mammal strike data has been provided for review. <b>It is recommended that the power line route is monitored once a week for bird collisions and the affected bird species recorded.</b>	PC
167	Road related faunal mortalities must be recorded to identify any additional high collision risk areas. Mitigation measures recommended in this report should then also be adapted to these areas.	No records of road kill were provided for review. <b>Additional high collision risk areas have not been identified or addressed. Records of collisions must be maintained.</b>	PC
168	Alien invasive vegetation eradication and monitoring must be conducted throughout the construction and operation phases as detailed in the Biodiversity Monitoring Programme.	Biodiversity monitoring data was not provided for review. <b>The Biodiversity Monitoring Programme must be implemented and invasive vegetation controlled.</b>	PC
169	Biodiversity monitoring must be conducted as per the Biodiversity Monitoring Programme.		PC
170	The dry grasslands associated with the project (i.e. dry grassland adjacent to the proposed haul road) must be burned every second year to remove moribund plant material.	Evidence that some of the grassland alongside the site had been burned however, it is unclear if this was a scheduled / controlled burn or not. <b>Fires in the vicinity of the project should be monitored to ensure that the burning rotation is maintained.</b>	PC
<b>Wetland management measures</b>			

No.	Condition	2024	Compliance
		Comments / Recommendations	
Construction Phase			
222	<p>The contractor has a responsibility to inform all staff of the need to be vigilant against any practice that will have a harmful effect on wetlands habitat. This information shall form part of the Environmental Education Programme to be effected by the Contractor, including the following:</p> <ul style="list-style-type: none"><li>- No construction shall take place in areas of high sensitivity such as wetlands or 50 m buffer zone.</li><li>- Any proclaimed weed or alien species that germinates during the contract period shall be cleared by hand before flowering.</li><li>- Infilling, excavation, drainage, dumping of building material and hardened surfaces (including buildings and asphalt) should not occur in any of the wetland, riparian or within the 50 m buffer zone as a minimum, but should preferably be done as far away as practically possible from these areas.</li></ul> <ul style="list-style-type: none"><li>• Imported fill material must be monitored during and after construction for the presence of any alien species. Any such species must be removed immediately.</li><li>• Emergency plans and spill kits must be in place in case of pollutant spillages.</li><li>• All stockpiles must be protected from erosion, stored on flat areas where runoff will be minimised, and be surrounded by bunds. It should also only be stored for the minimum amount of time necessary.</li><li>• Erosion control of all banks must take place so as to reduce erosion and sedimentation into drainage channels or wetland areas.</li><li>• Silt traps and culverts must be regularly maintained and cleared so as to ensure effective drainage.</li><li>• Littering and contamination of water sources during construction must be mitigated by effective construction camp management.</li><li>• All construction materials including fuels and oil must be stored in a demarcated area that is contained within a bunded impermeable surface to avoid spread of any contamination. The storage areas must be constructed as far away as practically possible outside of wetlands, riparian and buffer zones.</li><li>• Cement and plaster should only be mixed within mixing trays. Washing and cleaning of equipment should also be done within a bermed area, in order to trap any cement or plaster and avoid excessive soil erosion. These sites</li></ul>	<p>The contractor is on site for implementation of the dewatering project. Evidence of an Environmental Education Programme to be effected by the Contractor was not provided for review. <b>It is recommended that the Environmental Education Programme be developed and implemented on site as soon as possible.</b></p>	PC

No.	Condition	2024	Compliance
		Comments / Recommendations	
	must be rehabilitated prior to commencing the operational phase.		
Construction and Operation Phase			
228	Water to be discharged must be treated as per the Water Management Plan to ensure wetlands are not contaminated.	Refer to assessment of Water Management Plan. The discharge water is monitored regularly but no measures are in place to treat the water should it not comply with the discharge quality standards. To date the water quality has been largely compliant with these standards. This is being managed and monitored in terms of the dewatering WUL. Measures must be put in place to allow for the treatment of non-compliant water prior to discharge.	PC
231	Water must be discharged as per the Water Management Plan to ensure wetlands are not impacted.	Water is currently being discharged to the wetland associated with the Holfontein stream (Appendix 3, photos 15 and 16), as approved by the dewatering WUL. Specialist studies have been undertaken to determine whether there are any impacts associated with the discharge and measures are in place to address these.	PC
236	Monitoring must be carried out as per the Wetland Monitoring Programme.	No wetland monitoring is taking place. Monitoring must be carried out as per the Wetland Monitoring Programme and a wetland specialist must be consulted regarding the mitigation of any specific problems or issues identified.	PC
237	The ECO must be briefed by a wetland specialist on specific monitoring issues during the construction phase. Appropriate mitigation needs to be implemented after consultation with relevant specialist should any problems or issues be identified.		PC
Hydrocarbon management measures			
Construction, Operation and Decommissioning			
243	All generators will be placed on drip trays to catch spills and leaks, while all maintenance work on equipment, vehicles, machinery, etc. will be done over a plastic tarpaulin or steel drip trays situated within dirty water catchment areas.	Generators, vehicles, and machinery required for the dewatering project are on site. The generator has been placed on hardstand however, no facility has been provided to contain spills or leaks that may arise from generator operation. No maintenance work was observed. Precautionary spill management should be implemented.	PC
244	Any pumps, machinery or other equipment that require oil, diesel, etc., that are to remain in one position for longer than two days will be placed on drip trays which are to be emptied regularly. Any effluent from the drip trays and any spilled oils and fuels will be collected and stored in 210 litre drums within the service-bay area before being collected and disposed of by a licensed waste removal company.		PC
246	Store fuel, oils and other lubricants in a bunded storeroom with a capacity to contain 110% of the total volume thereof.	The hazardous substances store and fuel containers were not appropriately bunded (Appendix 3, Photos 4 and 14). It is recommended that all hazardous liquids are stored in a bunded facility.	PC
250	The Mine must keep copies of all disposal certificates on-site.	Although BJB Scrap (an external contractor) has been appointed to remove the waste from the site, the disposal certificates were not kept on site. It is recommended that copies of all disposal certificates are kept on-site.	PC
251	The fuel storage facility and associated bund walls will be maintained according to the SANS for the "storage and	The temporary fuel facilities on site do not comply with the requirements of SANS 10089 (Appendix 3, Photos 13 and 14). It is recommended that fuel storage facilities comply with SANS 10089.	PC

No.	Condition	2024	Compliance
		Comments / Recommendations	
	distribution of petroleum products in above-ground bulk installations" (SANS 10089-1:2003, edition 4.1).		
256	Implement a spill response plan and train personnel to react efficiently to address any spillage.	No evidence was provided of a spill response plan or associated training being implemented on site. <b>It is recommended that a spill response plan be compiled, and personnel are trained to react efficiently to address any spillage.</b>	PC
<b>Hazardous waste/hazardous substances management measures</b>			
<b>Construction, Operation and Decommissioning</b>			
273	The mine will keep Material Safety Data Sheets (MSDS) on site for all hazardous substances kept on site and comply with the requirements of all MSDS.	MSDSs were not available for review during the site visit. <b>It is recommended that Material Safety Data Sheets (MSDS) are kept on site for all hazardous substances.</b>	PC
274	Include effective and relevant information regarding the handling and storage of hazardous substances / waste into environmental awareness training provided to personnel and contractors during induction.	No training material and training registers were provided to the auditor. <b>It is recommended that awareness training is provided to personnel and contractors regarding the handling and storage of hazardous substances / waste.</b>	PC
280	A walled concrete platform, dedicated store with adequate flooring or bermed area must be used to accommodate substances such as paint, herbicide and insecticides etc., as appropriate according to their specific MSDS, in well-ventilated areas.	Such a facility has not been installed on site but the volumes of hazardous materials currently being stored on site are low. <b>It is recommended that an appropriate hazardous store be installed on site - having berms, adequate flooring and roofing.</b>	PC
286	The bund walls for all storage facilities containing any industrial or related hazardous substances / wastes will have sufficient storage capacity of 110% from the combined storage capacity.	Not all hazardous substances were stored in appropriately bunded facilities (Appendix 3, Photos 13 and 14). <b>All storage facilities containing any industrial or related hazardous substances / wastes are to be appropriately bunded.</b>	PC
290	The mine will request a safe disposal certificate for all hazardous waste streams removed by external contractors that will be kept on-file for the life of the mine.	No safe disposal certificates were available at the time of the audit. <b>Records regarding the waste volumes generated, and removed should be maintained.</b>	PC

## 5 CONCLUSION AND RECOMMENDATIONS

This EAR was compiled to assess compliance with the conditions of the EA and commitments made in the EMPr. Partial and non-compliances have been identified. Compliance of the site with the EA is 79% (an improvement from the previous audit) and compliance with the EMPr is 69%.

At the time of the audit, the project was in the pre-construction phase. While the conditions related to the specific tasks that were being undertaken were audited, the majority of the EMPr commitments and EA conditions are associated with mobilisation of the mine and the subsequent project phases (operation, and closure). Therefore, many mitigation/management measures and conditions remain inapplicable to the current stage of the project and could not be adequately assessed. However, they will be assessed in future audits (biennially) as the project officially commences. Preparatory tasks were being undertaken on site, that have environmental aspects, include the storage of hydrocarbons, the establishment of salvage/waste areas and the ongoing dewatering and discharge of groundwater.

### 5.1 Compliance with the EA and EMPr

The majority of the non-compliances were largely a result of incomplete site mobilisation and the installation of only temporary structures and equipment. During the site visit, it was observed that there was inadequate storage and handling of hazardous materials including diesel. The site is located close to sensitive watercourses. Therefore, any spills may have an impact on the prevailing aquatic ecology and all substances on site need to be stored appropriately; runoff from the site must also be contained. Appropriate facilities must be installed prior to potentially contaminating substances being brought onto the site. Other findings that were observed include:

- Environmental training and awareness have not been implemented.
- Environmental records are not being maintained on site, including safe disposal certificates, copies of the EMPr, incident register, internal audit reports, permits, licences, monitoring reports, grievance /complaints register, MSDSs and training records.
- Communication with the department including notifying the Department of the dewatering project and the details of the ECO.
- Development and implementation of various plans (including an SEP and CESF) and a review of the EPRP.
- The lack of measures to prevent any sinkhole development or seismic events on land overlying dolomitic aquifers during and as a result of dewatering.
- Water management infrastructure has not been installed and no water treatment options are currently available to address any discharge quality issues that may arise.
- Monthly inspections for debris and vegetation growth of the downstream watercourses (including the Blesbokspruit) have not taken place.
- Generators are not kept in enclosures or buildings to manage the noise impacts.
- Biodiversity and wetland monitoring and management measures have not been implemented.

### 5.2 Adequacy of the Holfontein EA and EMPr

None of the NEMA regulated activities, approved in the EA, have commenced, nor were there any unauthorised listed activities taking place at the time of the audit. Therefore, the EA remains suitable for the current activities and the proposed project.

Dewatering and discharge are taking place on the site. While the existing EMPr addresses dewatering and discharge (Appendix 3, Photos 15 and 16), the nature of the activity does not reflect that which was contemplated in the EIA / EMPr. However, the changes have been authorised by the dewatering WUL and are addressed in the associated IWWMP. It is therefore recommended that the Department should be notified of changes to the dewatering project.

### 5.3 EMPr recommendation report

Regulation 34 of the NEMA EIA Regulations (2014) requires the holder of the EA to submit recommendations to amend the EMPr or closure plan where findings of the EAR indicate:

- Insufficient mitigation of environmental impacts associated with the undertaking of activity.
- Insufficient levels of compliance with the EA or EMPr.

The audit indicated that compliance with the EA and EMPr could be improved. However, there were no impacts that had not been identified in the ESIA, and sufficient measures have been included in the EMPr to manage these impacts. The main difference between the authorised activities and the current site activities relates to the location of the discharge point – into the wetland associated with the Holfontein Stream rather than into the Blesbokspruit via pipeline. The impacts from the dewatering project are likely to be similar and the WUL / IWWMP for the dewatering project have included sufficient measures to address these. Considering that the dewatering project as it is currently being undertaken is authorised only as a temporary project, there is no need to update the EMPr.

### 5.4 Recommended actions

The audit identified several commitments and conditions that should be addressed prior to construction but may not yet be relevant, considering the unknown timeframe for construction. While these commitments were not considered non-compliant or partially compliant, recommendations are provided to address these timeously. Timeframes for construction must be determined and actions planned to align with the following commitments:

- Air quality monitoring should commence at least 6 months prior to the construction phase to allow for the collection of an ambient air quality baseline data set.
- A weather station is required to be installed on site prior to construction.
- The zoning requirements of the property should be reviewed to ensure that zoning is appropriate for the proposed activities.
- Noise barriers should be erected and visual screening in the form of trees should be planted.
- Personnel and contractors must be educated regarding the possible presence of subterranean archaeological and/or historical sites, features, or artefacts, as part of environmental awareness training during induction. Relevant archaeological training material must be compiled and incorporated into the environmental awareness plan.
- The current low water bridge across the Blesbokspruit must be upgraded to ensure that flow within the Blesbokspruit is improved.
- A dedicated borehole must be drilled at proposed ventilation shaft position, to identify high-yielding fissures/fractures and seal these prior to shaft sinking.
- Erect an acoustic barrier around ore hoisting and loading areas (at least 5.6 m in height) between the boundary of the activities and sensitive receptors during construction phase. If the material to be used

for the construction of the acoustic barrier is listed in terms of NEM:WA (i.e. mine residue material), authorisation must be obtained prior to construction.

- NKGM must compile a Community Development Plan (CDP) for the dewatering component of the Holfontein Project which can be updated as the other activities commence. It is recommended that NKGM collaborates with EMM and local government.
- A Stakeholder Engagement Plan (SEP) and Grievance Mechanism must be drawn up for the Holfontein Project.
- It is recommended that NKGM establish a Community Engagement and Security Forum (CESF) to ensure that stakeholders are notified and consulted throughout the LoM.
- In order to prevent conflict between the mine and the surrounding community, a security policy must be compiled. The security policy should be developed before construction commences. This is relevant because the residents of the Holfontein Community living in the unused mine houses and informal dwellings are close to the site.
- An In-Migration Management Plan must be developed to reduce the in-migration of job-seekers into the area, and to mitigate the negative impacts associated with this potential in-migration. No evidence of in-migration was observed during the site visit.
- The Grievance Mechanism should be monitored on an ongoing basis and any grievances should be adequately responded to in a timeous fashion. Relevant materials must however be put in place prior to construction to ensure an adequate complaints procedure, health awareness programmes, procedures for reporting illegal mining, ongoing communication with communities, and good relationships with employees.
- A survey must be undertaken prior to site establishment to identify species of conservation concern and to take appropriate action for their rescue / relocation.
- Relocation permits for any plant species of conservation concern to be impacted (i.e. *Hypoxis hemerocallidea* and *Kniphofia typhoides*) and demarcation permits for alien invasive species which are to remain on site (i.e. the blue gum trees on site) are to be obtained from DFFE prior to the commencement of construction activities.
- Wetland buffer zones to be demarcated on design drawings prior to construction. The design drawings need to be updated to align with those in the approved WUL, including the correct location of the discharge point.
- Hazardous waste training must take place prior to any hazardous wastes being handled on site.
- Environmental Awareness training material must be compiled for staff and contractors and put in place prior to construction.
- Plans with timeframes to address the following should be submitted to the Department within 1 year of commencing with construction activities:
  - Credible modelling must be implemented by a qualified specialist to assess the potential impacts for acid mine drainage during the life of the mining operation and provide mitigation measures.
  - Ground stability must be assessed by a qualified specialist for any geological strata with dolomitic aquifers which have been dewatered as a result of the mining activities and provide measures to prevent any sinkhole development or seismic events on such land.
  - Post closure impacts for all environmental media must be assessed and their mitigation measures provided during the life of mining operation, to ensure that proper closure options and future land use plans are identified for the disturbed land.

- Informal residents and residents of Welgedacht SH should be informed before construction commences as part of the establishment of the Community Engagement and Security Forum (CESF).
- A standalone EPRP should be compiled for the site prior to construction. The EPRP should include industrial action and contact details of police, ambulances, and any emergency centre closer to the site.
- All sludge or brine resulting from the water treatment facility will be transported back to the ME TSF via road. It must be confirmed that the ME TSF has sufficient capacity to accommodate the additional tailings material and brine. All waste streams from Holfontein must be taken into consideration during ME TSF planning.

## 5.5 Conclusions

In terms of Regulation 34 of the EIA Regulations, within 7 days of the date of submission of the EAR to the DMRE, NKGM is required to notify all potential and registered IAPs of the submission of the report, to and make the report immediately available - (a) to anyone on request; and (b) on a publicly accessible website, if such a website is available.



## **APPENDIX 1**





### **Environmental Authorisation – compliance checklist**





## **APPENDIX 2**

### **Environmental Management Programme – compliance checklist**

## **APPENDIX 3**

### **Photo Sheet**

	<p><b>Photo 1.</b> Security and access control at the entrance to the site</p>		<p><b>Photo 2.</b> Holding tank for water prior to discharge (part of dewatering project)</p>
	<p><b>Photo 3.</b> Workshop with roof and concrete hardstand</p>		<p><b>Photo 4.</b> Chemical store on concrete hardstand with an accessible spill kit</p>

	<p><b>Photo 5.</b> Bins with lids placed on concrete hardstand for waste separation and collection</p>		<p><b>Photo 6.</b> Pooling stormwater within material storage area.</p>
	<p><b>Photo 7.</b> Installation of sewage conservancy tank</p>		<p><b>Photo 8.</b> Scrap storage area and chemical toilets</p>





**Photo 9.**  
Containerised  
ablutions and  
potable water  
storage tank



**Photo 10.**  
Signage  
indicating  
potential noise  
risks on site



**Photo 11.**  
Winder installed  
in the winder  
house



**Photo 12.** Not  
yet  
commissioned  
dosing plant in  
preparation to  
treat dewatered  
water prior to  
discharge when  
required



**Photo 13.**  
Diesel storage  
on existing  
bund



**Photo 14.**  
Diesel storage  
tanks placed on  
concrete  
hardstand



**Photo 15.**  
Pipeline  
conveying  
abstracted  
water to the  
settling tank



**Photo 16.**  
Discharge point





**Photo 17.** Material being stored in the salvage area on site.



**Photo 18.** Signage prohibiting unauthorised access.



**Photo 19.** Signage prohibiting unauthorised access to the substation. Note also the site is equipped with fire extinguishers.