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NEWSHELF 1186 (PTY) LTD

ENVIRONMENTAL AUDIT REPORT FOR THE CONS MODDER (GEDEX) MINE, BRAKPAN, GAUTENG

FOR THE PERIOD: DECEMBER 2021 – NOVEMBER 2023

Prepared for:

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DMRE REF. GP30/5/1/2/2/10061MR

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1 GENERAL INFORMATION

1.1 Licence Holder

Company	Newshelf 1186 (Pty) Ltd (Newshelf)
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Responsible Person	Jon Hericourt (Senior Vice President Operations)
Email address	Jon.Hericourt@gold1.co.za

1.2 Environmental Assessment Practitioner (EAP)

Company	Prime Resources (Pty) Ltd
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Telephone number	011 447 4888
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Professional affiliations	PrEng PrSciNat SAImm EAPASA IAIAAsa

Prime Resources (Pty) Ltd is a specialist environmental consulting firm providing environmental, social, and related services, which was established in 2003. Prime Resources was founded by Peter Theron (PrEng, SAImm), the Managing Director and Principal Environmental Consultant of the firm. Peter has a GDE Environmental Engineering from the University of Witwatersrand and over 30 years' experience in the field of environmental science and engineering.

Relevant details of the audit team are provided in Table 1 and declarations of independence are provided in Appendix 1.

Table 1. Details and expertise of audit team

Name	Louise Jones	Stephen Tarlton
Role	Senior Environmental Scientist, auditor and author	Senior Environmental Scientist, auditor
Qualifications	MSc Environmental Sciences	BSc Hons (Environmental and Plant Science) MSc (Botany)
Affiliations	EAPASA registration No. 2019/1367	Pr.Sci.Nat. (Env. Sci.) No. 115011
Experience	10 years	10 years

1.3 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 Newshelf 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.

1.4 Declaration of independence

As the appointed external auditor, Prime Resources (Pty) Ltd has no other beneficial interest in the Newshelf Cons Modder 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.

The environmental consultants, scientists and engineers under the employ of Prime Resources, insofar as the undertaking of this assignment:

- Act as independent consultants as defined in GN982 of 2014 (as amended)
- Do not have any financial interest in the undertaking of the activity, other than fair remuneration for the work performed
- Have not, and will not, engage in conflicting interests in the undertaking of the activity
- Undertake to disclose to the Competent Authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document
- Have presented the results and conclusion to the best of our professional ability, based on information provided to us by the proponent and information obtained during this assignment
- Reserve the right to modify aspects pertaining to the present investigation should additional information become available through ongoing research and/or further work in this field
- Undertake to have our work peer reviewed on a regular basis.

Compiled by Louise Jones

Reviewed by Gené Main

Senior Environmental Scientist

Principal Environmental Consultant

EAPASA Reg: 2019/1367

EAPASA Reg: 2019/1257

2 INTRODUCTION

Newshef 1186 (Pty) Ltd (Newshef) holds a Mining Right [MR reference number: GP 30/5/1/2/2/10061 MR], Environmental Authorisation [EA reference number: GP 30/5/1/2/3/2/1 (10061) EM], and an approved Water Use Licence (WUL) [WUL reference number: 08/C21D/IC/7032], for the proposed Cons Modder Project located in the magisterial district of Brakpan.

An Environmental Impact Assessment (EIA) and Environmental Management Programme (EMPr) dated March 2018 was compiled in support of the Environmental Authorisation application. Construction activities commenced in November 2022.

The Cons Modder Project is located on the Remaining Extent of Portion 3 of Modderfontein 76IR, close to the suburbs of Huntingdon and Sherwood Gardens in the East Rand of Johannesburg. The area has been affected by unrehabilitated historic mining activities.

The project will consist largely of re-equipping the two existing incline shafts - Cons Modder 7 Shaft (7#) and 10 Shaft (10#) - for the movement of men, materials, ore, and waste rock. The two shafts are shallow, and the area has been mined historically from 60 to 150 metres below surface (mbs). Mining is planned to continue at approximately this depth. The Life of Mine (LoM) is 10 years as per the approved EIA/EMPr, based on the proven and probable reserves.

Ore will be transported to the Modder East Operations (Modder East) in Springs for processing. Tailings material from the processing of the Cons Modder ore will be deposited on the existing Tailings Storage Facility (TSF) at Modder East (Figure 1) after processing at the plant. The approved layouts and the construction activities undertaken to date are shown in Figure 2 to Figure 5.

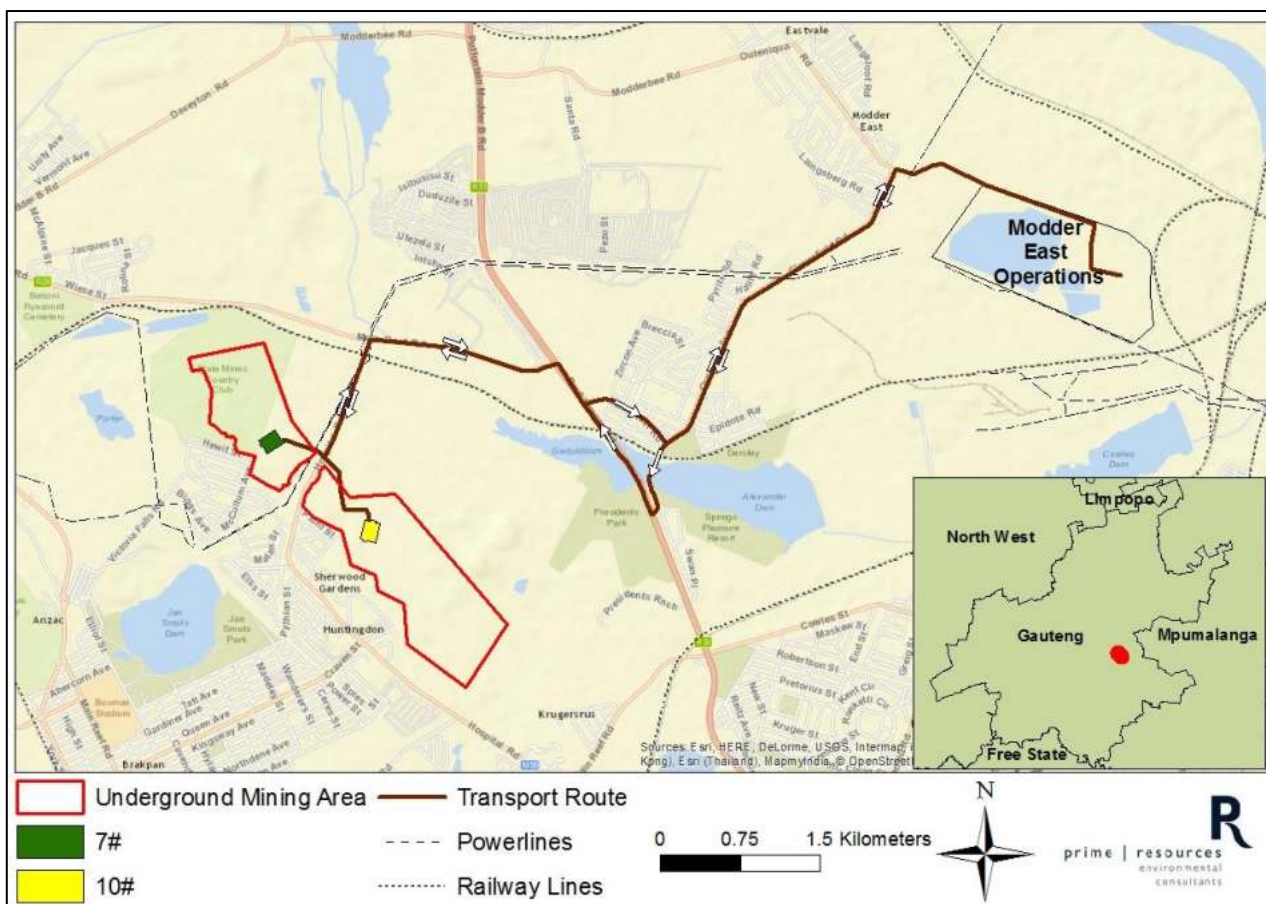


Figure 1. Cons Modder mining and shaft areas and transport route to Modder East Operations

As per the EA and associated EIA/EMPr, surface infrastructure to be constructed at both shafts will include:

- Access roads to the shafts from Hospital Road
- Perimeter fence, gate and security office
- Unpaved on-site roads
- A steel headgear
- Headgear bins to allow for storage of ore hoisted at night
- Winder
- Substation and power lines for connection to nearest existing substation
- Diesel generator sets (standby) and compressors
- Potable water storage tank and pipeline for connection to nearest municipal supply
- Ablution facilities and change houses
- Boot wash areas
- Concrete bank areas
- Covered loading areas
- A drop set operating tower
- Several railway loops for the handling of empty and full cars on a continuous basis
- General waste storage area (hard-standing area for covered bins / skips)
- Stormwater diversion infrastructure (trenches, silt traps and flow diffusing infrastructure)
- Pollution control infrastructure
- Workshops and stores
- Laydown areas

Surface infrastructure to be constructed at either 7# or 10# (not both) will include:

- Topsoil stockpile
- Enclosed explosives delivery area
- Grout plant
- Pollution control dam

Prime Resources was appointed by Newshelf to conduct the external environmental compliance audit for operations being undertaken at Cons Modder and to compile this Environmental Audit Report (EAR).

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

- Environmental Impact Assessment Report and **Environmental Management Programme Report** for the Cons Modder (Gedex) Mine. March 2018. DMRE reference GP 30/5/1/2/2/10061 MR and
- **Environmental Authorisation** issued to Newshelf 1186 (Pty) Ltd in terms of the NEMA as amended, the EIA Regulations, 2014, and the National Environmental Management: Waste Act Regulations, 2013.



Figure 2. Approved Cons Modder 7# layout



Figure 3. Infrastructure constructed at 7# to date



Figure 4. Approved Cons Modder 10# layout

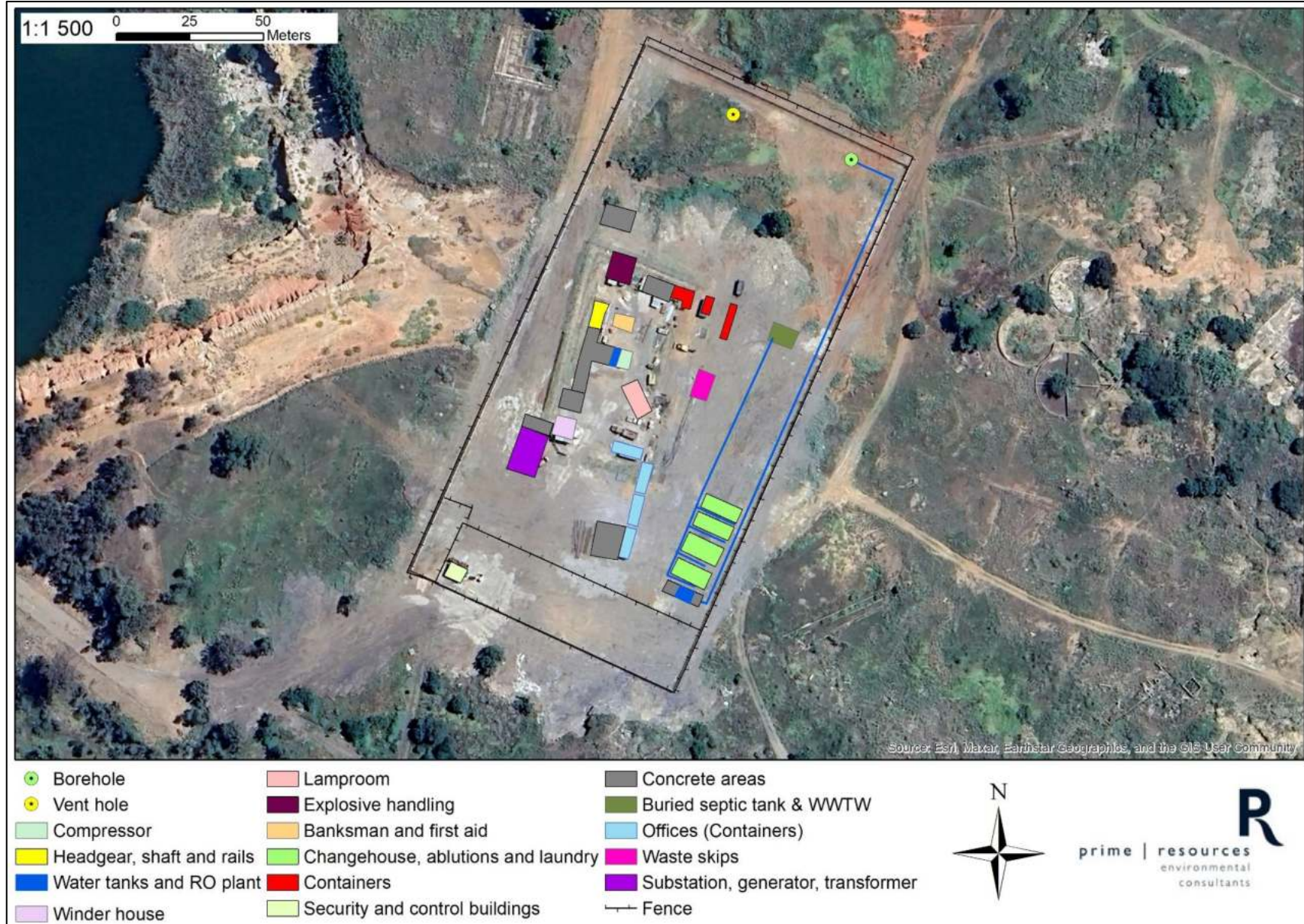


Figure 5. Infrastructure constructed at 10# to date

3 LEGAL FRAMEWORK

3.1 MPRDA and MPRDA Regulations

Previously, Regulation 55 of the Mineral and Petroleum Resources Development Act No. 28 of 2002 (MPRDA) Regulations (GNR527 of 2004) addressed the monitoring and performance assessments of the EMPr. However, this was repealed by amendments to the MPRDA Regulations in 2020 (GNR420 of 2020), indicating that the content of Regulation 55 performance assessments (audits) is now regulated by Regulations 34 to 37 of the National Environmental Management Act (No. 107 of 1998) (NEMA) EIA Regulations.

3.2 NEMA and EIA Regulations

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 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; 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 activity (Table 2); 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 2. Contents of an 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
3(1)(b)	A declaration that the independent auditor is independent in a form as may be specified by the competent authority	Appendix 1
3(1)(c)	An indication of the scope of, and the purpose for which, the environmental audit report was prepared	Section 2 and 3
3(1)(d)	A description of the methodology adopted in preparing the environmental audit report	Section 4
3(1)(e)	An indication of the ability of the EMPr, and where applicable, the closure plan, 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 6
3(1)(f)	A description of any assumptions made, and any uncertainties or gaps in knowledge	Section 4.5
3(1)(g)	A description of any consultation process that was undertaken during the course of carrying out the environmental audit report	Section 4.4
3(1)(j)	A summary and copies of any comments that were received during any consultation process	Section 4.4
3(1)(k)	Any other information requested by the competent authority	Section 4.4

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 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.

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 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

4.1 Frequency of reporting

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 EA requires that an EAR be compiled by an independent specialist and submitted to the DMRE on a **biennial** basis, as required in terms of Section 24Q of the NEMA.

4.2 Period applicable to this assessment

The previous EAR was compiled in November 2021. The audit review period for this assessment is therefore December 2021 - November 2023.

4.3 Site visit

A physical site inspection was undertaken on 29 November 2023 by Louise Jones and Stephen Tarlton from Prime Resources, and Khensani Mhlanga and Rudolf Nemukula from Newshef. Photographs from the site visit are included in Appendix 4. At the time of the site visit, construction activities were taking place.

4.4 Consultation and comments

No consultation with Interested and Affected Parties (IAPs) was undertaken during the process of compiling this audit report. No comments were therefore received from IAPs for inclusion in the report. The CA has not requested any specific information to be included in the report.

4.5 Assumptions, uncertainties, and gaps in knowledge

- The findings recorded in this report are limited to the timeframe during which the audit was undertaken.
- Site layout amendments were identified prior to the audit taking place, however, since an amended EMPr has not yet been submitted or approved for the Project, this EAR is based on the approved EMPr (2018), and EA granted in 2020.
- No other information was requested by the competent authority.

4.6 Rationale for scoring system

The following procedure was used 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
- Interviews with mine personnel where necessary to confirm the assessment.

The compliance scoring methodology is indicated in Table 3. All conditions and commitments are valued equally; no weighting has been added. Comments that are shown in **red text** indicate commitments that require urgent rectification or attention.

Table 3. Compliance scores used for the environmental audit

Scoring criteria	Score	Description
Compliant (C)	4	Satisfactory evidence provided to illustrate the fulfilment of a condition/ commitment
Partially Compliant (PC)	2	Although steps have been taken toward the fulfilment of a condition/ commitment, full compliance has not yet been achieved, and further action is required in order to obtain full compliance
Non-compliant (NC)	0	Failure to comply with or satisfy the requirements of a condition/ commitment

Not Applicable or Not Audited (N/A)	-	The condition is currently not applicable and has not been included in the audit score.
--------------------------------------------	---	-----------------------------------------------------------------------------------------

4.7 Compliance assessment and scoring

Of the auditable commitments in the **EMPr**, the site scored **91.2%**. Of the auditable conditions of the **EA**, the site scored **86.4%**.

Only the partial and non-compliance findings are summarised below, with full details described in the audit checklists of Appendix 2 and Appendix 3.

Table 4. Partial and non-compliances noted in the assessment of compliance in terms of the EMPr conditions

Ref no.	Aspect	EMPr Management measure	Responsible party	Nov 21	Audit Score	Nov 23	Audit Score	Comments/ Recommendations/ Actions
Air Quality Management Plan								
Air quality management measures								
Construction Phase								
AQM 9	Exposed areas	Use of chemical dust suppressants and windbreaks must be implemented prior to re-vegetation.	ECO / Construction manager	NA	-	PC	2	Chemical dust suppressants are not being used as yet. A gravel cap has been constructed at 10# to manage dust levels (refer to Appendix 4, Photo 18). No artificial wind breaks have been constructed, however vegetation surrounding the shaft areas has been left in place as a wind break. Dust levels appear to have increased from a visual perspective at 7# as a result of the earth moving and levelling activities. This needs to be confirmed from the dust monitoring and if required the dust levels must be managed through watering or a dust suppressant.
AQM 13	Unpaved roads	A gravel cap must be applied to the road surface of unpaved roads.	ECO / Construction manager	NA	-	PC	2	A gravel cap within the fenced off area of #10 shaft has been constructed. The other unpaved roads do not have a gravel cap as yet due to ongoing landowner issues.
AQM 14	Weather stations	A weather station must be installed on site to at least monitor wind speed and direction, and rainfall, to assist with interpretation and understanding of the monitoring results. The wind speed and direction sensor should be installed at an approximate height of 10 m above the ground.	ECO	NA	-	PC	2	There is a rain gauge at 10#. PM ₁₀ monitoring units have been installed at both shafts and these units will also monitor the wind speed/wind direction, however the units are not located 10m above the ground. A weather station must be installed.
AQM 15	Bin and truck loading	Sheltering measures must be implemented (i.e. enclosing the chute), to ensure that particulates are contained during ore hoisting and truck loading.	ECO / Construction manager	NA	-	PC	2	Material hoisting and truck loading infrastructure has been constructed at 10# in the form of the chute and banded/ walled ore bin. Negligible dust is currently being created due to tipping activities and particulates are contained during hoisting and truck loading. No further sheltering is planned, and this condition should be amended to state that sheltering measures must be implemented as required if particulates exceed required standards.

Ref no.	Aspect	EMPr Management measure	Responsible party	Nov 21	Audit Score	Nov 23	Audit Score	Comments/ Recommendations/ Actions
Biodiversity Management Plan								
Biodiversity management measures								
Construction and Operation Phases								
BDM 11	Alien invasive plant species monitoring and management	Alien vegetation must be removed and monitored as per the Alien and Invasive Control Plan from the area during all phases of the development, with specific mention of Category 1b species in line with the NEMBA Alien and Invasive Species Regulations (2016). Special attention should be paid to alien and invasive plant control within areas compacted as a result of construction activities.	ECO / Botanist	NA	-	PC	2	Bi-annual alien species invasion monitoring is carried out. The proliferation of AIP species within the study area is considered to be moderate and the control of AIPs has been undertaken, however AIPs are still present at 7# (refer to Appendix 4, Photo 3).
Noise Management Plan								
Noise management measures								
Construction Phase								
NM 2	Noise barrier	Where possible earthworks and material stockpiles should be placed so as to protect the boundaries from noise from individual operations and, which for greatest effect should be placed directly behind them. If a levee is constructed, it should be of such a height as to effectively act as a noise barrier (line of sight). In particular, stockpiles should form a berm to the south surrounding hoisting and loading areas to a height of approximately 1 m above the delivery end of the conveyor.	ECO / Construction manager	NA	-	PC	2	Construction activities are still underway. No berms are planned and this condition should be amended based on the findings of the noise measurements/ monitoring to construct berms if noise levels exceed requirements.
Construction, Operation and Decommissioning Phases								
NM 8	Fixed noise sources	Reduce noise at source by acoustic treatment, etc. Isolate bin and chute by an acoustic enclosure, etc. Compressors and generators should be installed in separate acoustically treated buildings.	ECO / Construction / Site manager	NA	-	PC	2	The ore chute has been constructed and is in use. The low height and gentle angle of the chute prevents excessive noise. Lining has been fitted to the ore chute to reduce noise. A roof has been constructed over the water tank and compressor. Piping for the electric compressor (lower noise) is being constructed. A new generator has been installed which operates with lower noise output. No sheltering is

Ref no.	Aspect	EMPr Management measure	Responsible party	Nov 21	Audit Score	Nov 23	Audit Score	Comments/ Recommendations/ Actions
								planned and this condition should be amended based on the findings of the noise measurements/ monitoring to construct berms if noise levels exceed requirements.
NM 12	Bin and truck loading	Enclose the hoist and tipping area with IBR or similar panel. In critical situations these areas can be lined with an absorbent layer held in place by expanded metal or similar to absorb noise locally and further reduce radiated noise.	ECO / Construction / Site manager	NA	-	PC	2	The winder house at 10# is enclosed in IBR sheeting (refer to Appendix 4, Photo 20). The ore hoist and tipping area is bermed but does not have an enclosure/ roof. No sheltering is planned, and this condition should be amended based on the findings of the noise measurements/ monitoring to construct berms if noise levels exceed requirements.
Socio-Economic Management Plan								
Socio-Economic management measures								
Prior to Construction Phase								
SEM 7	In-migration management plan	Compilation of an in-migration management plan based on discussions through local engagement structures. These impacts will be difficult to manage and will require a collaborative effort between Newshelf and the Municipality.	ECO and / or SLP or Community Engagement Officer	NA	-	PC	2	An in-migration management plan must still be compiled.
SEM 41	Monitoring	Implement the Socio-economic Monitoring Programme to monitor the progress and effectiveness of proposed socio-economic mitigation measures and ensure stakeholder input is considered as part of the ongoing implementation process.	ECO	NA	-	PC	2	Monitoring has not yet been carried out. Socio-economic monitoring is to occur at least every second month. The following aspects need to be implemented as soon as possible: The development of a community database, which will keep a record of all existing residents, their households and their dwelling type. Crimes must be reported to the mine so that a record can be kept of criminal activity within and around the mine. A specialist or community liaison officer must be appointed to carry out this monitoring.
Traffic Management Plan								
Traffic management measures								
Construction, Operation and Decommissioning Phases								
TM 6	Access	The access routes must be clearly marked, and drivers must only travel on designated routes.	ECO	NA	-	PC	2	No signage is present on the access roads. Traffic is however limited and drivers are trained in terms of the speed limits and access routes.

Ref no.	Aspect	EMPr Management measure	Responsible party	Nov 21	Audit Score	Nov 23	Audit Score	Comments/ Recommendations/ Actions
TM 7	Speed limit	Speed of construction vehicles and haul trucks travelling on unpaved roads must be limited to 40 km/h.	ECO	NA	-	PC	2	Drivers are trained in terms of the speed limits. Signage should be erected on the access roads with the speed limits shown.
TM 15	Road surfaces	The condition of the roads must be inspected to ensure that the road does not deteriorate or become unusable. A representative from the Municipality should be encouraged to participate in the engagement structures so that any issues related to road structure can be brought to the attention of the Municipality.	ECO	NA	-	PC	2	The access roads to the shafts are deteriorating. The mine team is in communication with the municipality regarding the roads, electricity, sewage and water in the area, however municipal input with regards to these services is limited. Records of the communication with the municipality must be kept. The mine team planned to compact and install a gravel cap on the access roads. The gravel cap within the fenced off area of 10# is complete.
Water Management Plan								
Water management measures								
Construction Phase								
WAM 7	Stormwater runoff management	Suitable flow diversion structures, such as diversion berms and/or collection canals, must be established around the border of the proposed operational areas diverted to flow diffusing infrastructure to release stormwater runoff into the environment preventing erosion.	ECO / Construction Manager	NA	-	PC	2	Stormwater runoff management infrastructure and silt traps have not been constructed yet.
WAM 8		Silt traps must be placed downstream of the operational areas.	ECO	NA	-	PC	2	
WAM 9	Construction materials management	When preparing concrete for the struts keep in mind that mixing of concrete take place on an impermeable surface.	ECO / Construction Manager	NA	-	PC	2	Concrete is mixed on the bare ground, however concrete mixing is localised, and potentially contaminated soil is removed after completion. Concrete mixing must occur within a designated area on an impermeable surface.
WAM 10	Uncontrolled discharges	No uncontrolled discharges to any surface water resources must be permitted. Any discharge points need to be approved by the relevant authority (DWS).	ECO / Construction Manager	NA	-	PC	2	Stormwater runoff management infrastructure has not been constructed yet. Discharge noted at the water tanks for underground drilling was due to valve repair. Correct drainage to be constructed.
Construction and Operation Phases								
WAM 22	Dirty water management	All clean and dirty water areas need to be clearly separated in line with the requirements of regulation GN704 of the NWA.	ECO	NA	-	PC	2	A sump has been installed at the ore bin to capture dirty water runoff (refer to Appendix 4, Photo 21). Other clean and dirty water

Ref no.	Aspect	EMPr Management measure	Responsible party	Nov 21	Audit Score	Nov 23	Audit Score	Comments/ Recommendations/ Actions
WAM 23		Contained dirty water must be recycled and utilised within the mine water circuit where possible.		NA	-	PC	2	management infrastructure has not been constructed.
WAM 24		The designated dirty water area should be rehabilitated and minimised so as to minimise the potential loss of catchment surface runoff yield.		NA	-	PC	2	The wastewater treatment facility has been installed by the mine to treat grey and black water arising from the change rooms and ablution facilities. Water tanks for underground drilling have been installed and covered. Wastewater from drilling to be pumped and processed at 3# and pumped underground to 10#.
WAM 25	Stormwater runoff management	Stormwater runoff must be managed appropriately to ensure that the area is not flooded during heavy rainfall events.	ECO	NA	-	PC	2	Stormwater runoff management infrastructure has not yet been constructed. There is an existing historical berm that runs around the east side of the pit. This will be upgraded by the mine in the future. The historical dumps/berms to the south of 10# also divert runoff around the surface infrastructure area.
WAM 26		Ensure that silt traps are maintained regularly.		NA	-	PC	2	
Hydrocarbon Management Plan								
Hydrocarbon management measures								
Construction, Operation and Decommissioning Phases								
HCM 8	Disposal	The Mine must keep copies of all safe disposal certificates on-site.	ECO	NA	-	PC	2	Digital copies are available at Modder East, however as per the condition these must be kept on site.
General Waste Management Plan								
General waste management measures								
Construction, Operation and Decommissioning Phases								
GWM 2	Waste drums / bins / skips	The mine will ensure that an adequate number of waste drums / bins / skips are available on site, upon a suitably hardened surface. Waste must be stored in a manner that it cannot be washed or blown into the environment.	ECO / Site manager	NA	-	PC	2	Waste is stored in skips however the waste storage areas do not have firm, impermeable, chemical resistant floors and topsoil and subsoil must be protected from contamination or pollution (refer to Appendix 4, Photo 4 and 14).
Hazardous Substances / Hazardous Waste Management Plan								
Hazardous substances / hazardous waste management measures								
Construction, Operation and Decommissioning Phases								
HSHW M 11	Hazardous substances Storage and handling	Cement must be stored and cement batching must be undertaken on an impermeable surface.	ECO / Construction manager	NA	-	PC	2	Concrete is mixed on the bare ground, usually within the specified footprint of the planned infrastructure area (refer to Appendix 4, Photo

Ref no.	Aspect	EMPr Management measure	Responsible party	Nov 21	Audit Score	Nov 23	Audit Score	Comments/ Recommendations/ Actions
								6). Concrete mixing must occur within a designated area on an impermeable surface.
HSHW M 16	Contaminated water	Surface water draining off potentially contaminated areas must be contained.	ECO / Site manager	NA	-	PC	2	A sump has been installed at the ore bin to capture dirty water runoff (refer to Appendix 4, Photo 21). Other clean and dirty water management infrastructure has not been constructed.

Table 5. Partial and non-compliances noted in the assessment of compliance in terms of the EA conditions

Ref no.	EA Condition	Nov 21	Audit Score	Nov 23	Audit Score	Comments/ Recommendations/ Actions
Environmental Authorisation Site Specific Conditions						
1	This Environmental Authorisation (EA) is solely for the listed activities as indicated on pages 2-5 of this document. Listed activities: <ul style="list-style-type: none"> • GNR983 of 2014, No. 12, 14, 19, 24 and 27 • GNR984 of 2014, No. 6, 17 and 19 • GNR985 of 2014, No. 4, 10, 12, 14 and 15. 	C	4	PC	2	The approved layout and current placement of infrastructure on site are not aligned. Since site layout and project description amendments have been identified, an amended EMPr will need to be compiled and submitted for approval. A full scoping and EIA process will need to be followed and the EMPr will need to be updated to reflect where current measures are no longer applicable / not relevant. A WUL amendment will also be required. These processes are underway.
1. Scope of Authorisation						
1.2	Any changes to, or deviation from the project description set out in this EA must be approved in writing by this Department before such changes or deviations 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, 2014.	C	4	PC	2	Changes to the project description in the 2018 EIA/EMPr have been identified and an amendment application process needs to be undertaken.
3. Commencement of activity						
3.18	The holder of EA must note that in terms section 43A of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2006), residue deposit and residue stockpile must be deposited and managed in a prescribed manner on any site demarcated for that purpose in the approved EMPr. No person may temporarily or permanently deposit residue stockpile or residue deposit on any area or site other than on site indicated on the approved EMPr.	NA	-	NC	0	No mine residue stockpiles or deposits are to be created and no waste rock will be stored or deposited on the site, as per the EMPr, however at the time of the audit, residue material was temporarily stored on surface prior to removal off site. The residue material was stored on the gravel cap (refer to Appendix 4, Photo 17). A Part 4 amendment of the approved EMPr in terms of GNR982 Section 37 of the NEMA EIA Regulations (2014), to reflect the latest MWP and updated project description needs to be undertaken. Newshef must apply for EA and a Waste Management Licence (WML) for the activities which are triggered by the proposed amendments (including the temporary storage of waste rock on site). An application for a WUL amendment will also be submitted to the DWS. A public participation process will be followed to meet the requirements of Chapter 6 of the NEMA EIA Regulations (2014). A full scoping and EIA process will be followed and the EMPr will be updated to reflect where current measures are no longer applicable / not relevant and where additional measures are required.
3.22	The waste storage site must have a firm, impermeable, chemical resistant floor and a roof to	NA	-	NC	0	Skips are used for the storage of general waste, scrap metal and used sorb material (hazardous waste). Non-mine waste removed from

Ref no.	EA Condition	Nov 21	Audit Score	Nov 23	Audit Score	Comments/ Recommendations/ Actions
	prevent direct sunlight and rainwater from getting into contact with the waste.					underground is stored on surface prior to removal by a contractor. The waste storage area does not have a firm, impermeable, chemical resistant floor and is not covered with a roof.
4. Management of activity (ies)						
4.10	This EA only authorises activities specified in Annexure 1 and a new authorisation must be applied for in respect of any new listed activity not specified as part of Annexure 1. 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.	NA	-	PC	2	The approved layout and current placement of infrastructure on site are not aligned. Since site layout and project description amendments have been identified, an amended EMPr will need to be compiled and submitted for approval. A full scoping and EIA process will need to be followed and the EMPr will need to be updated to reflect where current measures are no longer applicable / not relevant. A WUL amendment will also be required. These processes are underway.
4.12	Erosion and soil loss must be prevented by minimizing the reclamation site exposed to surface water run-off.	NA	-	PC	2	Erosion prevention measures are still to be implemented, however no obvious signs of erosion are noted at present.
6. Site security and access control						
6.2	Weatherproof, 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.	PC	2	NC	0	The signage is weatherproof, durable and legible however not all requisite information is displayed. The signage must be in at least three official languages, 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:	C	4	NC	0	Reference to the Emergency Preparedness and Response Plan (EPRP) is made in the EMPr and was reviewed as part of this audit process. A standalone Emergency Evacuation plan for fire has been compiled for the site, however an Emergency Plan still needs to be compiled to cover all of the events listed in the EA. Neither the EPRP in the EMPr or the Emergency Evacuation plan for fire address industrial action. This must included in the standalone EPRP to be compiled for the site.
7.1.4	Industrial action	PC	2	PC	2	The EPRP in the EMPr and the Emergency Evacuation plan for fire does not address industrial action. This must be included in the standalone EPRP to be compiled for the site.
7.2	The holder of IEA 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.	NA	-	NC	0	There is not currently an emergency register for the site. Newshef must ensure that an up-to-date emergency register is kept during all phases of the operation.

5 MONITORING DATA

The following monitoring has been conducted to date:

5.1 ECO monitoring

ECO monitoring for the Construction Phase commenced in May 2023; weekly inspections were conducted, and monthly ECO reports were compiled (Refer to Appendix 5).

5.2 Air quality monitoring

Air quality monitoring commenced in November, with the installation of 2 x PM₁₀ units and 5 x dust buckets (Figure 6). Baseline monitoring will be carried out for 12 months. The monthly ambient air quality monitoring report will include the PM₁₀ monitoring data as well as the dust fall analysis in one monthly report. A report was not yet available at the time of this audit.

5.3 Alien and invasive plant (AIP) monitoring

Bi-annual alien species invasion monitoring is conducted within the mine footprint area. The winter AIP monitoring was done in August 2023 (Refer to Appendix 6). The proliferation of AIP species within the study area is considered to be moderate.

5.4 Biomonitoring

A biomonitoring assessment of the aquatic resources in the vicinity of the Cons Modder Mine was carried out in August 2023 (Refer to Appendix 7).

Upstream and downstream monitoring points on the unnamed tributary of the Blesbokspruit were assessed for biotic integrity (Figure 6). It was found that, prior to any potential impact from the construction of the Cons Modder Mine, significantly elevated dissolved salt concentration [exceeding the Resource Water Quality Objectives (RWQO) (DWS, 2018)] was measured at the upstream reference site. The elevated Electrical Conductivity (EC) measured was likely due to catchment wide point and diffuse sources of pollution.

The macro-invertebrate community integrity, as assessed using the Macro-Invertebrate Response Assessment Index (MIRAI) Ecostatus tool, deteriorated slightly from a Category D (Largely Modified) condition at site CM US to a Category D/E (Largely to Severely Modified) condition at site CM DS, but improved again to a Category D (Largely Modified) condition at site CM DS2 (Figure 6). Despite some variation in water quality (not significant) and spatial variation in macro-invertebrate community diversity and sensitivity (South African Scoring System Version 5 [SASS5] scores), overall, the macro-invertebrate community integrity has remained unchanged according to the MIRAI Ecostatus tool.

Ongoing monitoring will need to continue to monitor existing trends and identify any emerging trends.

5.5 Ground vibration and air blast monitoring

Ground vibration and air blast monitoring and reporting commenced in November 2023. Three permanent monitoring stations were installed at residential properties near the mine for the continuous monitoring of ground vibration and air blast with Instantel seismographs (Figure 6). A report was not yet available at the time of this audit.

5.6 Surface water quality monitoring

The first round of surface water sampling was carried out on 1 November 2023, and upstream and downstream monitoring points were sampled (Figure 6). A detailed report and interpretation of the results was not yet available at the time of this audit.

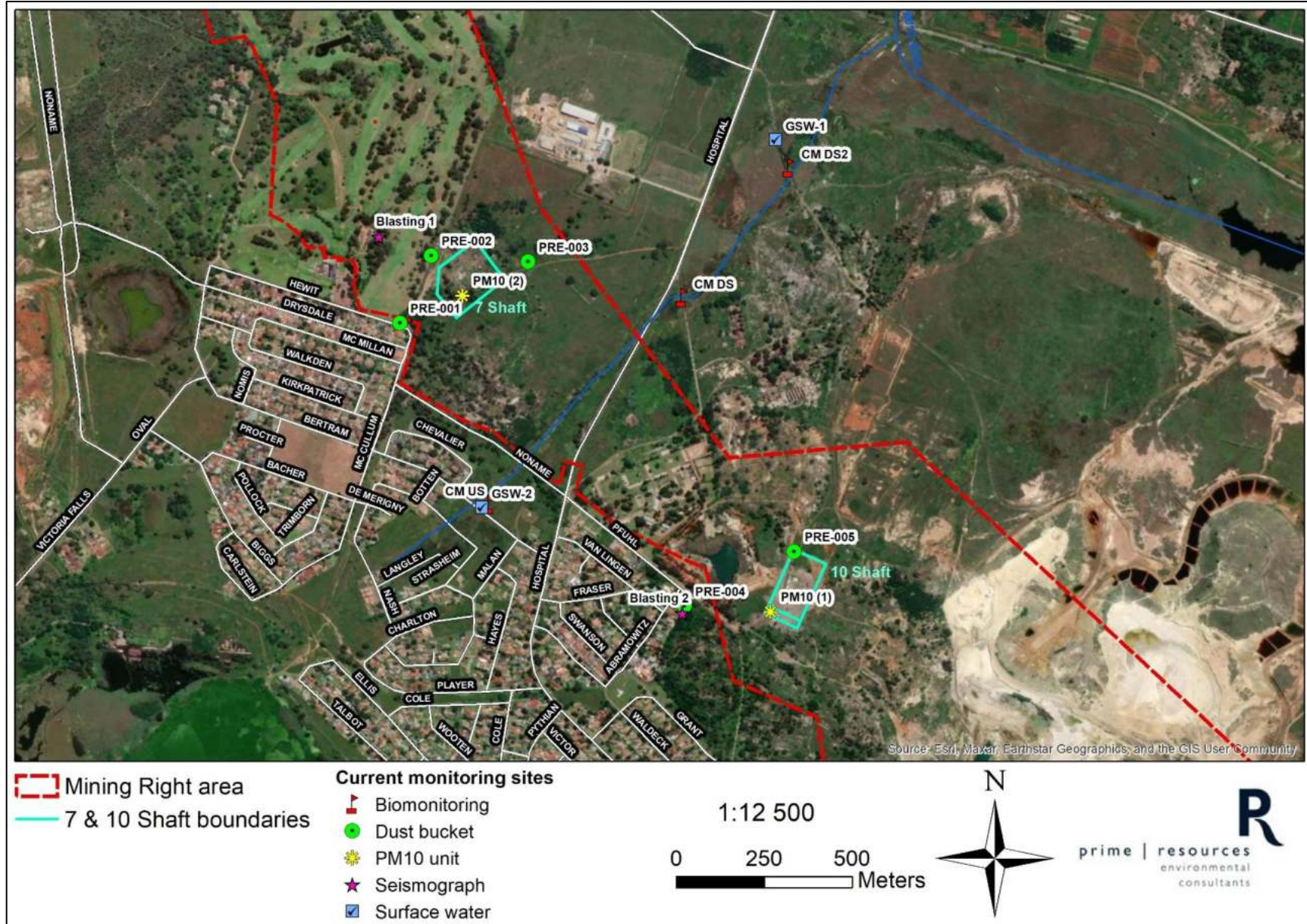


Figure 6. Current monitoring sites

6 CONCLUSIONS AND RECOMMENDATIONS

This EAR was compiled to comply with the legislative requirements of NEMA, conditions of the EA, and commitments made in the EMPr. The audit report will be submitted to the DMRE Gauteng. Within 7 days of submission of this audit report to the DMRE, all potential and registered IAPs need to be notified of the submission and this report needs to be made available to anyone on request, and on Newshelf's publicly accessible website.

6.1 Compliance with the EMPr

Of the 155 conditions that were auditable, 27 were considered partially compliant while the rest were fully compliant. The partially compliant conditions relate to the following:

- Dust levels appear to have increased from a visual perspective at 7# as a result of the earth moving and levelling activities. This needs to be confirmed from the dust monitoring and if required the dust levels must be managed through watering or a dust suppressant.
- Unpaved roads do not have a gravel cap as yet, due to ongoing landowner issues.
- A weather station must be installed on site to at least monitor wind speed and direction, and rainfall, to assist with interpretation and understanding of the monitoring results. The wind speed and direction sensor should be installed at an approximate height of 10 m above the ground.
- Noise suppression of the material hoisting and truck loading infrastructure has been constructed at 10# in the form of the chute and bunded/ walled ore bin but no further sheltering is planned.
- Environmental noise monitoring needs to be conducted on a quarterly basis from the operational phase, which has commenced at 10#, throughout the LoM.
- AIPs are present at 7# and the control recommendations in the Winter Alien and Invasive Plant Monitoring Report (refer to Appendix 6) should be implemented.
- An in-migration management plan must still be compiled.
- Socio-economic monitoring is to occur at least every second month. A specialist or community liaison officer must be appointed to carry out this monitoring. The following aspects need to be implemented as soon as possible: The development of a community database, which will keep a record of all existing residents, their households and their dwelling type. Crimes must be reported to the mine so that a record can be kept of criminal activity within and around the mine.
- Signage should be erected on the access roads with the speed limits shown.
- The access roads to the shafts are deteriorating. The mine team is in communication with the municipality regarding the roads, electricity, sewage and water in the area, however municipal input with regards to these services is limited. Records of the communication with the municipality must be kept. The mine team planned to compact and install a gravel cap on the access roads.
- Stormwater runoff management infrastructure and silt traps have not been constructed yet.
- Concrete is mixed on the bare ground. Concrete mixing is localised, and contaminated soil removed after completion. Concrete mixing must occur within a designated area on an impermeable surface.
- Digital copies of all safe disposal certificates are available at Modder East, however as per the condition these must be kept on site.
- Waste is stored in skips however the waste storage areas do not have firm, impermeable, chemical resistant floors and topsoil and subsoil must be protected from contamination or pollution.

6.2 Compliance with the EA

Of the 55 conditions that were auditable, 5 were considered partially compliant, 5 were considered non-compliant, and the rest were fully compliant. The partially and non-compliant conditions relate to the following:

- No residue deposits areas are to be constructed for this project as per the EMPr, however at the time of the audit, residue material was temporarily stored on surface prior to removal off site. The residue material was stored on the gravel cap.
- The waste storage area does not have a firm, impermeable, chemical resistant floor and is not covered with a roof.
- Erosion prevention measures are still to be implemented; however no obvious signs of erosion are noted at present.
- The signage is weatherproof, durable, and legible however not all requisite information is displayed. The signage must be in at least three official languages, 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.
- An Emergency Plan still needs to be compiled to cover all of the events listed in the EA.
- There is not currently an emergency register on site. Newshelf must ensure that an up-to-date emergency register is kept during all phases of the operation.

6.3 Other recommendations

Recommendations for improvements that can be made on site include the following:

- The results of the monthly monitoring (surface water, air quality, blasting etc.) must be assessed to determine if additional mitigation measures are required.
- Vegetation is to be planted over the disturbed areas where there will be low traffic, as soon as possible.
- The diesel bund wall had an opening that was not plugged, and which needs to be closed/ sealed.
- Surrounding communities/ residents should be informed of the grievance mechanism and how to lodge a complaint with the mine.
- Engagements/ communication with surrounding communities/ residents and community representatives must be kept on record.

6.4 Adequacy of the Cons Modder EMPr

The EMPr is largely effective in managing the current activities taking place on the site. No instances of pollution or overt environmental degradation were observed during the audit and measures are in place to avoid or adequately mitigate the foreseen environmental impacts of the authorised activities.

The approved layout and current placement of infrastructure on site are however not fully aligned. Since site layout and project description amendments have been identified, an amended EMPr will need to be compiled and submitted for approval. Other amendments that could be considered in the amended EMPr include the following:

- No further sheltering is planned at the chute at 10#, and the conditions requiring sheltering measures (enclosing the chute) could be amended to state that sheltering measures must be implemented as required if particulates exceed required standards.

- No berms/noise barriers are planned and the conditions requiring the erection of a noise barrier could be amended based on the findings of the noise measurements/ monitoring and the site layout and project description amendments to commit to only constructing barriers/ berms if noise levels exceed requirements.
- Lighting is present for security reasons and is on continuously during the night and the condition to have *motion sensor activated lighting may be used instead of lights that illuminate continuously* should be amended.

6.5 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.

Such recommendations must have been subjected to a public participation process as agreed to by the competent authority.

As described in Section 6.4, an amended EMPr needs to be compiled and submitted for approval. A full scoping and EIA process will need to be followed and the EMPr will need to be updated to reflect where current measures are no longer applicable / not relevant and where additional management measures are required.

A Part 4 amendment of the approved EMPr in terms of GNR982 Section 37 of the NEMA EIA Regulations (2014), to reflect the latest MWP and updated project description accordingly will need to be undertaken. Newshelf must apply for EA and a Waste Management Licence (WML) for the activities which are triggered by the proposed amendments (including the temporary storage of waste rock on site). An application for a WUL amendment will also need to be submitted to the DWS. A public participation process must be followed to meet the requirements of Chapter 6 of the NEMA EIA Regulations (2014). A full scoping and EIA process will need to be followed.

Appendix 1

Declarations

I, Louise Jones, 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.



Signed

Date: 11 December 2023

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.



Signed

Date: 11 December 2023

Appendix 2

EMPr Compliance Checklist

Appendix 3

EA Compliance Checklist

Appendix 4

Photo sheet

Appendix 5

ECO Monthly reports

Appendix 6

Winter Alien and Invasive Plant Monitoring Report

Appendix 7

Biomonitoring Assessment