

**ALIWAL QUARRY**  
**A PORTION OF ERF 2928,**  
**ALIWAL NORTH, EASTERN CAPE PROVINCE**

**ENVIRONMENTAL PERFORMANCE ASSESSMENT /**  
**ENVIRONMENTAL AUDIT REPORT**

<b>DMR REFERENCE NUMBER:</b>	<b>EC 30/5/1/2/2/215 MR</b>
<b>AUDIT PERIOD:</b>	<b>August 2023 – May 2024</b>

**PREPARED FOR:**

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**1. PROJECT SPECIFIC DETAIL**

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Postal Address	Postnet Suite 62 Private Bag x15 Somerset West 7129
ITEM	LOCATION AND AREA INFORMATION
Site Name	Aliwal Quarry
Property Description	Erf 2928
Location	The Aliwal Dolerite Quarry is located 3 km to the south-west of Aliwal North and the N6 National Road on a portion of Erf 2928.
Size of Mining Area	62.299 ha (since approval of the S102 application).

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**2. ENVIRONMENTAL AUDIT REPORT**

**PROJECT DETAIL**

<b>Right Number:</b>	EC 30/5/1/2/2/215 MR	<b>Date of commencement:</b>	June 2010
<b>Site name:</b>	Aliwal Quarry	<b>Inspection date:</b>	20 May 2024
<b>Right Holder:</b>	Aliwal Dolerite Quarries (Pty) Ltd	<b>Other authorisations:</b>	Water Use Authorization No: 23086105 & 27/2/1/D114/48
<b>Report number:</b>	02		

**DETAIL OF AUDITOR**

**(APPENDIX 7 SUB-REGULATION 3(A) & (B)):**

<b>ECO:</b>	Christine Fouché
<b>Expertise:</b>	Ms Fouche has a Diploma in Nature Conservation and a BSc in Botany and Zoology with nineteen years experience in environmental impact assessments and compliance monitoring in South Africa. Ms Fouché is a registered Environmental Assessment Practitioner (registration no: 2019/1003) with EAPASA (Environmental Assessment Practitioners Association of South Africa) since 2019.
<b>Declaration of independence:</b>	<p>I, Christine Fouche, in my capacity as environmental control officer declare that–</p> <ul style="list-style-type: none"> <li>• I act as independent environmental control officer in this compliance audit;</li> <li>• I will perform the work relating to the audit in an objective manner, even if the results and findings are not favourable to the holder of the authorisation;</li> <li>• I have expertise in conducting environmental compliance audits, including knowledge of the Act and regulations that have relevance to the activity;</li> <li>• I will adhere to and comply with all responsibilities as indicated in the National Environmental Management Act and Environmental Impact Assessment Regulations.</li> <li>• I do not have and will not have any vested interest in the activity other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014 (as amended).</li> </ul> <p align="center">             Christine Fouché         </p> <p align="right">Date: 05 June 2024</p>

## **SCOPE & PURPOSE OF ENVIRONMENTAL AUDIT**

### **(APPENDIX 7 SUB-REGULATION 3(C)):**

This environmental audit report was compiled in terms of the requirements of the NEMA EIA Regulations, 2014 (as amended). The EAR focussed on Part 11 Environmental Management and Monitoring of the 2011 EMPR. The conditions of the Environmental Authorisation and EMPR (*3.13 Proposed Impact Management Objectives and the Impact Management Outcomes for inclusion in the EMPr*) associated with the Section 102 amendment application to extend the mining footprint of the Quarry were also incorporated into this report.

#### **OBJECTIVE:**

The objective of the environmental audit report (EAR) is to evaluate compliance of the operational activities with the 2011 Environmental Management Programme Report (EMPR), Section 102 Environmental Authorisation (2019), and the 2018 Section 102 EMPR as approved by the Department of Mineral Resources and Energy. To evaluate the effectiveness of the EMPR's, identify shortcomings, and discern the need for changes to the environmental management programmes.

#### **INSPECTED AREAS:**

The inspection included an assessment of the following areas:

- Offices and storage areas;
- Workshop and wash bay;
- Wash plant and settling ponds;
- Crusher plants and stockpile areas;
- Salvage yard;
- Quarry Pit;
- Overburden dumps;
- Processing area;
- Diesel depot;
- Stockpile area;
- Weigh bridge.

To establish the environmental compliance assessment of the operation, the mining site was inspected on foot by the Environmental Control Officer, Ms Christine Fouché, from Greenmined Environmental accompanied by Me Thembi Mteto of Aliwal Quarry.

## **ASSUMPTIONS, UNCERTAINTIES OR GAPS IN KNOWLEDGE**

### **(APPENDIX 7 SUB-REGULATION 3(F)):**

The assumptions made in this document, stem from specific information gathered during the site audit and background information provided by site management. The findings of the previous environmental performance assessment (2023) were also considered. This audit did not consider health and safety aspects, was not intended as a legal assessment, nor was the aspects of the Social and Labour Plan and/or Mine Works Programme reviewed.

**LOCATION**

<b>Site location:</b>	The Aliwal Quarry is located 3 km to the south-west of Aliwal North and the N6 National Road on a portion of Erf 2928.	
<b>Site map:</b>		
<b>Original Site Coordinates:</b>	<b>South Coordinate (Latitude)</b>	<b>East Coordinate (Longitude)</b>
	A	-30° 42' 13.85311"
	B	-30° 42' 14.52522"
	C	-30° 42' 15.26281"
	D	-30° 42' 16.69336"
	E	-30° 42' 19.43279"
	F	-30° 42' 26.37506"
	G	-30° 42' 28.79195"
	H	-30° 42' 29.36976"
	J	-30° 42' 29.87858"
	K	-30° 42' 29.49021"
	L	-30° 42' 33.91468"
	M	-30° 42' 43.18546"
	N	-30° 42' 53.37863"
P	-30° 42' 56.47420"	
Q	-30° 42' 58.77362"	
R	-30° 43' 09.95726"	
S	-30° 42' 19.06215"	
<b>Section 102 extension coordinates:</b>	<b>Y Coordinates: (WG 27°)</b>	<b>X Coordinates</b>
	T	+30 400.83
	U	+30 303.71

	V	+30 131.91	+3 399 684.25
	W	+30 247.08	+3 399 717.62

**PROJECT DESCRIPTION**

The Aliwal Quarry is an open cast mine that has been in existence since 1976. The solid dolerite is mined using conventional drilling, blasting, and bench-mining methods, with loosened material loaded to haul trucks and transported to the processing plant situated to the east of the mining area. The material goes through several crushers and screens to produce different sized aggregates and sand for the ready-mix, construction and road building industry. Facilities exist for washing products when required.

The DMRE approved a Section 102 amendment application in terms of the MPRDA, 2002 (as amended) to expand the mining footprint in December 2022. The said approval increased the mining footprint with 6.7824 ha to a total of 62.299 ha.

**SITE CONDITIONS**

Sunny windless day with dry soil conditions.

**REPORTABLE ENVIRONMENTAL INCIDENTS**

<b>Incident date:</b>	The quarry has an online system where all accidents and incidents are logged (see example attached to this document). No major incidents occurred during the audit period that had to be reported to the DMRE.
<b>Incident no:</b>	
<b>Incident:</b>	
<b>How addressed:</b>	
<b>When addressed:</b>	

**ADOPTED METHODOLOGY**  
**(APPENDIX 7 SUB-REGULATION 3(D)):**

COMPLIANCE SCORE	DESCRIPTION
1	Task not achieved
2	Task 20% achieved
3	Task 50% achieved
4	Task 80% achieved
5	Task 100% achieved in accordance with the EMP

NON-COMPLIANCE SCORE	DESCRIPTION
1	<b>LOW</b> – Mitigation not needed / mitigation measures to be maintained
2	<b>MEDIUM</b> – Mitigation should be considered
3	<b>HIGH</b> – Mitigation compulsory

**INSPECTION ASPECTS**

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
<b>LEGISLATION COMPLIANCE:</b>				
National Environmental Management Act, 1998 (Act No 107 of 1998) and the Environmental Impact Assessment Regulations, 2014 (as amended)	5	-	Compliant	<ul style="list-style-type: none"> <li>The competent authority deems the approved 2011 EMPR and MR of the quarry compatible with an Environmental Authorisation in terms of NEMA, 1998 and the EIA Regulations, 2014 (as amended).</li> <li>The Environmental Authorisation (EA) regarding the Section 102 amendment application was approved in 2019 and a copy of the authorisation is available on site.</li> </ul>
Copy of the EA available on site	5	-	Compliant	
Mineral and Petroleum Resources Development Act, 2002 (Act No 28 of 2002)	5	-	Compliant	The Section 102 application to extend the mining footprint was granted on 02 December 2022 and is currently in the process of being registered.
Mining right available on site	5	-	Compliant	The executed S102 mining right is still with DMRE registry.
Mine plan annually reviewed	5	-	Compliant	The mine plan was reviewed in March 2024 and a copy is available on site.
National Environmental Management: Air Quality Act, 2004 (Act No 39 of 2004)	5	-	Compliant	Although the activities at the mine does not require an air emissions licence, the requirements of the NEM:AQA are considered on site.
National Environmental Management: Waste Act, 2008 (Act No 59 of 2008)	5	-	Compliant	The waste of the quarry is managed in accordance with the requirements of the NEM:WA.
National Water Act, 1998 (Act 36 of 1998)	5	-	Compliant	The Quarry has an approved Water Use Authorisation that allows for the abstraction of water from boreholes and the quarry pit for industrial use, the use of wastewater (dust suppression), and a contaminated stormwater storage facility. Water monitoring is also implemented at the site.
Copy of Water Use Authorisation available on site.	5			-
National Environmental Management: Biodiversity Act, 2004 (Act No 10 of 2004) (NEM:BA)	3	3	Being addressed	Aliwal Quarry has an Alien Invasive Species Management Plan (2023) as well as an Alien Invasive Management Action Plan. The action plan divides the mining area into 3 sections

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
				that must be progressively cleaned.
<b>MINE PLANNING (2011 EMPR PG 11.2)</b>				
Long-term mine plans generated and maintained that consider final closure requirements.	1	3	To be implemented	The site does not have a long term plan as required in the EMPR.
Short-term mine plan (annual) in place that are aligned to achieve long-term mine plan.	5	-	Compliant	The blasting plan shows the short term planning of the quarry.
Mining coordinated in accordance with short-term mine plan.	5	-	Compliant	-
Short term mine plan showing at least the following: <ul style="list-style-type: none"> <li>Boundary and 9 m boundary pillar,</li> <li>Disturbed area subjected to current mining,</li> <li>Indicated future mining areas,</li> <li>Topsoil stockpiles,</li> <li>Overburden dumps,</li> <li>Storm water control structures.</li> </ul>	4	3	To be implemented	The mine plan does not show the 9 m boundary pillar, nor does it specify the topsoil and overburden stockpiles. The future mining areas are indicated on a separate plan.
Agenda of quarry planning meetings include environmental issues as prescribed in the EMPR (topsoil, overburden, visual, dust, noise, monitoring, storm water, closure requirements, complaints).	5	-	Compliant	Environmental matters were incorporated into the quarry planning meeting agendas since the last environmental audit.
<b>STRIPPING OF VEGETATION AND TOPSOIL (2011 EMPR PG 11.3):</b>				
Reduce area of impact by only striping areas demarcated for mining.	N/A	-	-	No topsoil was stripped nor was new areas disturbed during the audit period in the original mining footprint.
Unnecessary stripping of vegetation along the ridge avoided	N/A	-	-	
Vegetation and topsoil stripping only 20 m ahead of working face, or 3 months prior to mining.	N/A	-	-	This condition is no longer deemed applicable as the S102 application was approved and the quarry face now extends into an approved area with a separate EMPR. Additional thereto, no vegetation and/or topsoil was stripped in the original mining footprint during the audit period.

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Concurrent rehabilitation implemented.	5	-	Compliant	Site management is busy installing a bridge that will connect the western side of the pit with the eastern side to be mined in future. The bridge contribute towards the rehabilitation of the previously mined areas.
Employees educated on poaching and snares	5	-	Compliant	Toolbox talks address this matter.
Security inspecting the mining area weekly and removing snares.	4	3	To be implemented	The security guards do routine inspections of the mining area. As discussed, the guards must be educated to be on the lookout for snares.
Fauna sightings book maintained	1	3	To be implemented	A fauna sightings book must be started on site.
Top 50 cm of material treated as topsoil, and below as overburden. Topsoil and overburden stripped separately.	N/A	-	-	No topsoil was stripped nor was new areas disturbed in the original mining area during the audit period.
Topsoil and overburden stripped separately.	N/A	-	-	
No soil stripped when windy/wet (if practical).	N/A	-	-	
Topsoil and overburden stockpiled separately.	N/A	-	-	
Topsoil/overburden stockpiles not stored in future mining area or area where it will be compacted by vehicles	N/A	-	-	
Topsoil storage (heaps not exceeding 3 m)	N/A	-	-	Topsoil stockpiles were established in the expansion area, but no stockpiled topsoil occur in the original mining area.
Topsoil and overburden stockpiles clearly labelled	1	3	To be implemented	The overburden heaps must be signposted.
Soil stockpiles protected from compaction by vehicles and storm water run-off.	N/A	-	-	The original quarry does not have topsoil stockpiles.
Stockpiles indicated on all mine plans.	N/A	-	-	
Stockpiles monitored for correct use, erosion, alien vegetation, foreign matter. Corrections implemented when necessary.	N/A	-	-	
Erosion identified and addressed.	N/A	-	-	No erosion were noted on site.
Alien vegetation removed by hand pull methods.	5	-	Compliant	-

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Foreign matter removed and disposed in accordance with the waste management plan.	5	-	Compliant	-
<b>STRIPPING AND STOCKPILING OF OVERBURDEN (2011 EMPR PG 11.4):</b>				
Overburden handled separately to topsoil.	N/A	-	-	Mining (during the audit period) focussed on the already disturbed pit and the extension area (S102) therefore no new overburden was removed from the original mining area.
Overburden used for concurrent rehabilitation under topsoil.	5	-	Compliant	Overburden and oversize rocks are used to construct the bridge in the quarry.
Overburden dumps located outside future mining areas, or areas prone to excessive surface water runoff. Stormwater control implemented and dumps captured on mine plans.	4	3	To be addressed	The overburden dumps must be indicated on the mine plan.
Overburden dumping planned so the exterior of the dump is only undertaken between 08:00 and 18:00 during weekdays.	5	-	Compliant	-
Earthmoving equipment kept in good working order.	5	-	Compliant	This appeared true during the audit.
Structures/measures/filters in place to filter “dirty” water from overburden dumps.	5	-	Compliant	Gabions are being installed to filter sediment from runoff water that leaves the mining area.
Overburden dumps monitored (stormwater, revegetation, alien vegetation, erosion). Inadequacies rectified.	4	3	To be implemented	All alien invader plants must be removed from the overburden dumps.
Overburden dump restricted to a max of 20 m	5	-	Compliant	-
<b>DRILLING BLASTING AND SECONDARY BREAKING (2011 EMPR PG 11.5):</b>				
Drilling and blasting undertaken in compliance with the short-term mine plans.	5	-	Compliant	-
Blasting conducted by a certified blaster i.t.o the Blasting Procedure.	5	-	Compliant	B&E International (Pty) Ltd was appointed as the responsible blasters at the quarry.
Blast monitoring implemented.	5	-	Compliant	-
Concerns regarding blasting addressed.	4	3	Being addressed	The quarry is in the process of addressing a blasting related concern.
Explosive magazine permit on-site and requirements implemented.	N/A	-	-	The magazine was removed from site.

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Drill rigs fitted with dust suppression / extraction equipment and maintained according to a schedule.	5	-	Compliant	-
Blasting postponed when windy.	N/A	-	Compliant	Not needed since last audit.
Secondary breaking taking place in the quarry.	N/A	-	-	No secondary breaking takes place at the quarry.
Drilling and secondary breaking undertaken during normal operational hours and within the quarry.	5	-	Compliant	-
Blasting conducted between 12:00 and 16:00	5	-	Compliant	-
Water monitoring conducted on water in the quarry sump for levels of nitrate	4	3	To be addressed	The previous water samples (from the pit) were collected in August 2023. The results indicated elevated nitrate levels that must be addressed. See General Report.
<b>LOADING AND HAULING (2011 EMPR PG 11.7):</b>				
Vehicle and earth moving equipment checks undertaken prior to a shift.	5	-	Compliant	Proof of pre-start registers are available on site.
Dust resulting from vehicle entrainment on all haul roads suppressed.	5	-	Compliant	Additional water sprayers were added along the road ways and the weigh bridge.
Loading and hauling of blasted material to the primary crusher restricted to normal work hours.	5	-	Compliant	<ul style="list-style-type: none"> <li>Hauling of the blasted material to the primary crusher is restricted to normal work hours.</li> <li>The site also stockpiles additional material near the crusher that is then processed after hours.</li> </ul>
Earthmoving equipment kept in good working and if possible, fitted with noise abatement technology.	5	-	Compliant	-
<b>CONCURRENT REHABILITATION (2011 EMPR PG 11.7):</b>				
Concurrent rehabilitation implemented.	5	-	Compliant	As mentioned earlier, the bridge being installed in the quarry pit is part of concurrent rehabilitation.
Annual concurrent rehabilitation guideline developed and reported on.	1	3	To be implemented	-
Priority given to external perimeter of the mining area when concurrent rehabilitation is implemented.	N/A	-	-	Not applicable as the quarry pit is being extended in a westerly direction.

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
At least 10 indigenous trees planted a year.	3	2	To be implemented	The quarry planted fruit trees during the audit period. Although this is an improvement since last year, the trees are unfortunately not indigenous.
Local horticulturalist/nursery used to supply seeds/plants.	N/A	-	-	Not applicable as no areas were rehabilitated where plants needed to be established.
Indigenous species used.	N/A	-	-	
Fast growing evergreen trees used.	N/A	-	-	
Concurrent rehabilitated areas monitored, and corrective actions implemented when needed.	N/A	-	-	
Alien vegetation control plan (AVCP) implemented on site.	3	3	To be intensified	Although the AVCP was compiled it must be updated to include all the problem plants of the site and implemented.
AVCP reviewed and if necessary updated annually	1	3	To be implemented	
Continued existence of beneficial alien vegetation legalised through the DWS.	N/A	-	-	It was established during the audit period that the <i>Eucalyptus</i> trees at the mine is of the <i>Eucalyptus citriodora</i> species (Blue spotted gum / Lemon eucalyptus) that is not listed as an invader plant species in South Africa.
Inspection programme for all buildings implemented (maintenance, redundancy)	5	-	Compliant	Although no formal inspection programme exist, maintenance is constantly done and repairs when needed.
Open pits progressively backfilled and made safe (such as the old sandstone pit)	4	1	Ongoing	The sandstone pit was refilled, and the bridge being added to the quarry pit forms part of the progressive rehabilitation of mined areas. However, the quarry will never be completely backfilled as this is impractical.
<b>CRUSHING, SCREENING, WASHING AND STOCKPILING (2011 EMPR PG 11.10):</b>				
Plant kept in good working order through scheduled maintenance.	5	-	Compliant	-
Build-up of fines reduced around the plants.	5	-	Compliant	The plant is cleaned daily.
Enclosures at the existing crushers/screens maintained.	5	-	Compliant	-
Exposed transfer points fitted with dust suppression systems and working effectively.	5	-	Compliant	The plant is fitted with water sprayers.

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Drop height from crushing plants onto the plant stockpiles reduced by maintaining a stockpile	5	-	Compliant	-
Vehicles speed restricted to 20 km/h and roads watered around the plant.	5	-	Compliant	-
Dust management measures monitored.	5	-	Compliant	-
Pre-shift inspection of the plant implemented to identify potential oil leaks.	5	-	Compliant	Pre-start registers are available on site.
<b>DISPATCH (2011 EMPR PG 11.11):</b>				
Dust suppression implemented	5	-	Compliant	Additional water sprayers were added along the road ways.
Sales and dispatch during normal operational hours.	5	-	Compliant	-
Vehicles not leaking oil/fuel.	4	3	To be addressed	During the audit small hydrocarbon spill were noted that indicate some of the vehicles/equipment were leaking.
No excessive exhaust emissions.	5	-	Compliant	-
Bucket of the vehicle suitable for the products being collected.	5	-	Compliant	-
Unroadworthy vehicles reported to the owner and entry to the mine prevented.	5	-	Compliant	The site has a system where the roadworthiness of all vehicles that enter is checked.
Vehicle parking area clear of oil/hydrocarbon spills.	5	-	Compliant	The parking area was clear of spills.
Overloading prevented.	5	-	Compliant	All trucks leaving the site must pass over the weighbridge and no overloading is allowed.
Use of tarpaulins on haulage vehicles requested and encouraged by mine	5	-	Compliant	Although this is not implemented by the clients, the quarry does encourage the use of covers on the trucks.
Potholes reported to the relevant traffic department	N/A	-	-	-
<b>WATER SUPPLY AND USE (2011 EMPR PG 11.12):</b>				
All water uses licenced by DWS and a copy available on site.	5	-	Compliant	-
Operation in accordance with the WUL conditions and audited every 2 years.	1	3	To be implemented	The conditions of the WUL needs to be audited to ensure compliance.
Changes in water uses affecting the current authorisation.	N/A	-	-	Not application as the water uses of the Quarry did not change during the audit period. However, the site is still in

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
				the process of re-evaluating the water uses and will align this with the latest legislative requirements if applicable.
Monthly water balance diagram maintained.	4	3	To be implemented	The water balance diagram needs to be updated to correspond with the figures presented in the ESG spreadsheet.
Biannual water management inspections conducted of all areas stipulated in the EMPR and rectifications implemented.	3	3	To be implemented	The previous water samples were collected in August 2023 and the next samples were according to management due for collection in May 2024. The site must increase sampling to biannual as stipulated in the EMPR.
Potable water obtained from the boreholes and available on site for use of workers	5	-	Compliant	-
Monthly water consumption monitoring implemented and used to update the water balance diagram.	4	3	To be implemented	The monthly water consumption of the mine is captured in the ESG spreadsheet however, this information must be used to update the water balance diagram.
Taps, water pipelines and pumps inspected for leaks (weekly)	5	-	Compliant	-
Water captured in the quarry used for process water.	5	-	Compliant	-
Process water recycled (settling dam).	3	3	To be addressed	Although the wash plant wasn't in use on the day of the audit, the settling ponds were overgrown and not according to standard. The ponds need to be cleaned and all process water must be directed to the dams.
Freeboard level (0.8m) indicated on the settlement dam and training sessions done to prevent exceedance.	1	3	To be implemented	
Training sessions conducted to prevent exceedance of the freeboard level.	1	3	To be implemented	
Regular maintenance of the settlement dam side wall carried out to detect erosion/leakages.	1	3	To be implemented	
“Clean” water separated from “dirty” water and directed around the site	4	3	To be addressed	Additional berms and gabion baskets were being added to keep clean and dirty water separate. However, as mentioned earlier the settling ponds are overgrown and
Uncontrolled discharge of “dirty water” from mining site prevented.	4	3	To be addressed	

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
				need to be cleaned before the washing of material can commence.
Stormwater control structures evaluated biannually.	5	-	Compliant	Gabion baskets were being installed between the community and the quarry, as well the community and the access road to control sediment rich runoff water leaving the site.
Regular maintenance of berms/trenches carried out to keep clean and dirty water separate.	5	-	Compliant	
Responsible person appointed to monitor the level and integrity of septic tanks. Strong odours reported to a responsible person.	5	-	Compliant	-
Septic tanks emptied when more than 75% full	5	-	Compliant	The municipality empties the tank when needed and proof is available on site.
Biannual surface and ground water monitoring implemented.	3	3	To be addressed	Presently the mine does annual water quality tests of the surface water. No groundwater monitoring was done during the audit period.
<b>ELECTRICITY SUPPLY AND ASSOCIATED WORKSHOP (2011 EMPR PG 11.14):</b>				
All spares and parts stored in a workshop.	5	-	Compliant	-
Workshop neat and tidy.	5	-	Compliant	-
Potentially oily electrical equipment stored in a concreted area.	5	-	Compliant	-
Sealed drum for the disposal of fluorescence tubes maintained in the workshop.	1	3	To be implemented	-
Technology to reduce energy consumption investigated.	5	-	Compliant	Management confirmed that the new motors installed at the quarry is more energy efficient and LED light bulbs were installed.
Transformers/gensets kept in a concrete lined bunded area.	2	3	To be implemented	The generator of the site was placed on a concrete slab. The slab must however still be fitted with a bund wall.
Transformers maintained by a qualified electrician.	5	-	Compliant	-
Transformer areas kept free of vegetation.	N/A	-	-	-

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Transformers tested for PCB contamination and if necessary polluted oil replaced with virgin oil.	N/A	-	-	Site management is not allowed to enter the onsite Eskom transformer area.
Monthly electricity consumption recorded.	5	-	Compliant	Part of the ESG spreadsheet.
<b>MAINTENANCE / WORKSHOP (2011 EMPR PG 11.14):</b>				
General housekeeping within the workshop maintained.	5	-	Compliant	The workshop was very neat at the time of the audit.
Polluting chemicals stored within a protected area.	5	-	Compliant	-
New oils moved/stored in a designated oil store.	5	-	Compliant	-
Old oil captured and recycled.	5	-	Compliant	Oilkol (Pty) Ltd collects the used oil of the site.
Old oil stored within a sealed container prior to recycling.	5	-	Compliant	-
All lubrication containers stored in a concreted protected area in line with the MSDS.	5	-	Compliant	-
MSDS sheets reviewed and audited (annually).	5	-	Compliant	-
Hydrocarbon spills cleaned up.	4	3	To be addressed	The spills noted during the previous audit was cleaned, however a few other small spills were noted on the day of the audit.
Clean water falling outside the workshop area directed away through trenches and berms.	5	-	Compliant	-
Water falling within the workshop captured and directed into an oil separator. Clean water from the oil separator used as process water.	5	-	Compliant	The last chamber of the oil sump was emptied during the audit period and on the day of the audit all contaminated water was flowing through the sump system.
Vehicle checks done prior to start of a shift.	5	-	Compliant	-
Vehicle parking area allocated for vehicles not in use and kept clear of spills.	5	-	Compliant	-
Drip trays placed under vehicles.	5	-	Compliant	-
Vehicles and earthmoving equipment maintained in accordance with a maintenance schedule and records kept.	5	-	Compliant	-
Maintenance conducted within covered concreted workshop.	5	-	Compliant	-
Drains leading to the oil trap inspected weekly and cleaned routinely.	5	-	Compliant	The drains and first chamber of the oil trap is continuously cleaned.

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Level of sludge in the first chamber of the oil trap monitored and cleaned when full.	5	-	Compliant	
Water from last chamber of oil separator system tested to prove effectiveness. Corrective measures taken if necessary.	5	-	Compliant	The water from the last chamber of the oil sump was tested and showed traces of hydrocarbons. The whole oil sump system was cleaned since and new test will indicated if the cleaning was affective.
<b>DIESEL (2011 EMPR PG 11.16):</b>				
Above ground diesel tank located within a bunded area that can contain 110% of the capacity of the tank.	4	3	To be addressed	The capacity of the bund wall is less than 110% of the fuel stored within.
Responsible person present when fuel is delivered or dispensed.	5	-	Compliant	-
Structural integrity of the bund inspected monthly and corrected if needed.	4	3	To be addressed	As mentioned earlier, the capacity of the bund must be increased whereafter it must be sealed.
Outlet valve of the bund always kept closed.	5	-	Compliant	The valve was closed on the day of the audit.
Bund wall clear of excessive fines and vegetation.	5	-	Compliant	-
Area around the refuelling stations inspected.	5	-	Compliant	The area around the refuelling station was neat on the day of the audit.
Environmentally acceptable absorbent available at locations where potential spills may occur.	5	-	Compliant	The site has an oil spill kit.
Staff members who dispense fuel trained in spill handling	5	-	Compliant	Emergency drills are done on site where the responsible employees are trained.
Diesel bowser inspected for leaks and stored on a concreted area when not in use.	4	3	To be addressed	A concrete lined parking area with berm along three sides were made for the diesel bowser. However, as discussed, the entrance must be fitted with a small berm to prevent spills/water draining from the parking area into the surroundings.
Fuel consumption monitoring implemented.	5	-	Compliant	This forms part of the ESG spreadsheet.
<b>SALVAGE YARD (2011 EMPR PG 11.17):</b>				
Equipment that may result in small oil leaks stored in a plastic lining or drip tray.	N/A	-	-	No longer applicable, as all the old equipment that may result in oil leaks were removed from site.

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
No stormwater flows through salvage yard.	5	-	Compliant	The stormwater flows around the concrete lining of the salvage yard.
Salvage yard neat and stored in orderly fashion.	5	-	Compliant	-
Usefulness of materials at the salvage yard evaluated annually.	5	-	Compliant	Unwanted scrap metal was sold since the last audit.
<b>WASTE (2011 EMPR PG 11.17):</b>				
Waste management inventory developed and maintained: <ul style="list-style-type: none"> <li>List of waste produces generated,</li> <li>Classification of waste (gen/haz),</li> <li>Disposal records,</li> <li>Off-site disposal records, with contact details of contractor. Authorisation/licence of contractor,</li> <li>Record of amount.</li> </ul>	4	3	To be intensified	Waste management improved since the previous audit and all waste disposal records are available on site. Management must still request the waste removal sub-contractors to supply the quarry with their proof of waste handling registration/certification.
Employees trained in need to separate general/hazardous waste.	5	-	Compliant	-
Small salvage yard for non-polluting salvage material (screens) maintained.	5	-	Compliant	-
Mine patrolled to remove litter.	5	-	Compliant	-
Temporary waste storage facilities signposted for different types of waste	5	-	Compliant	See photographic proof below.
Suitable number of waste receptacles available.	5	-	Compliant	-
Bunded tanks for recycling of old oil drained from vehicles and equipment available.	5	-	Compliant	-
Skip for scrap metal in waste processing area.	5	-	Compliant	-
Recycling area for glass, cans, and paper	N/A	-	-	No recycling companies have been identified in the vicinity of the Quarry where glass/cans/paper can be disposed of separately. Oil, scrap metal, filters recycled.
Bunded, concreted, covered storage area for hazardous waste. No hazardous waste stored >90 days.	4	3	To be addressed	The bunds of the hazardous waste storage areas must be sealed.

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Store for old tyres and conveyor belts.	5	-	Compliant	A specific area was designated for the storage of these materials.
Capacity of the waste processing area of sufficient size.	5	-	Compliant	-
Appropriate storm water management system at the waste processing areas.	5	-	Compliant	-
Proof that the company contracted to collect and dispose waste is authorised available.	1	3	To be addressed	As mentioned earlier, management must request the waste removal sub-contractors to supply the Quarry with their proof of certification.
Proof of disposal and/or recycling of waste available.	5	-	Compliant	-
Authorisation of the disposal and/or recycling facility.	1	3	To be addressed	See earlier comment regarding the registration of service providers.
<b>ADMINISTRATION (2011 EMPR PG 11.19)</b>				
Adherence and validity of permits/registrations/licences confirmed annually: <ul style="list-style-type: none"> <li>• Mining Right,</li> <li>• WUL,</li> <li>• Waste disposal permits,</li> <li>• Explosive magazine permit,</li> </ul>	5	-	Compliant	The mine no longer has a magazine.
Contracts between the mine and sub-contractors stipulate environmental commitments.	5	-	Compliant	The quarry uses contractor packs on site that stipulate the relevant conditions and requirements.
Induction training done with all sub-contractors.	5	-	Compliant	-
Proof of annual liaison with surrounding landowners.	5	-	Compliant	The surrounding landowners are informed of each blast via notices and a verbal announcements (speaker broadcast in community).
Complaints registered maintained on site.	5	-	Compliant	The mine has a complaints box and register.
<b>ENVIRONMENTAL MANAGEMENT DURING DECOMMISSIONING AND CLOSURE (2011 EMPR PG 11.21):</b>				
This section was not audited as the decommissioning phase has not yet commenced nor is the mine in closure.				

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
<b>HAZARDOUS CHEMICAL / HYDROCARBON SPILLS (2011 EMPR PG 11.22):</b>				
Source of the spill stopped, and the spill contained	4	3	To be addressed	The spills on the roadways and hazardous waste storage area must be stopped and cleaned.
Contaminated area cleaned as prescribed in the EMPR	4	3	To be addressed	
Contaminated material disposed of as hazardous waste or transported to a bioremediation site.	5	-	Compliant	EnviroTech removes the contaminated soil from the mine and proof is available on site.
Record kept of safe disposal.	5	-	Compliant	-
<b>FIRE (2011 EMPR PG 11.23):</b>				
Potential for spread of veld fires reduced	5	-	Compliant	A fire break was made at the quarry.
Fires reported to emergency services	5	-	Compliant	When needed.
Fire extinguishers available on site	5	-	Compliant	-
Employees trained in firefighting	5	-	Compliant	-
<b>SECTION 102 EMPR – TOPOGRAPHY (2018 EMPR PG 57):</b>				
Mining carried out in such a way that the slopes are not dangerously steep.	3	3	In process	The sloping of some of the old faces of the quarry is in progress.
Slopes profiled to a 1:3 gradient and monitored continually.	3	3		
Topsoil redressed and hydroseeding with local grass species done once mining completed.	N/A	-	-	Not yet applicable
Steep slopes battered and stabilised.	N/A	-	-	
Wind erosion monitoring implemented.	5	-	Compliant	No wind erosion concerns were noted on site.
Road surfaces stabilised and maintained during mining operations.	5	-	Compliant	-
Vehicles remain within the designated road to prevent soil erosion.	5	-	Compliant	-
<b>SECTION 102 EMPR – FLORA (2018 EMPR PG 57):</b>				
Topsoil kept safe to be used for rehabilitation	4	3	To be addressed	Once mining recommence in the extension area the topsoil must be stripped and stockpiled separately. No topsoil may be sold.

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Indigenous vegetation reintroduced through rehabilitation	N/A	-	-	Not yet applicable.
Mining area monitored for the occurrence of alien plant species and such plants appropriately removed.	3	3	To be addressed	See earlier comment regarding the alien invader plant species action plan of the site. The extension area must form part of this action plan.
Rehabilitation area monitored for occurrence of alien plant species until 90% of the natural vegetation cover is established.	N/A	-	-	Not yet applicable.
<b>SECTION 102 EMPR – FAUNA (2018 EMPR PG 58):</b>				
Concurrent rehabilitation implemented.	N/A	-	-	Not yet applicable for the extension area.
Exotic vegetation removed.	3	3	To be addressed	See earlier comment regarding the alien invader plant species action plan of the site. The extension area must form part of this action plan.
Disturbance limited to minimum mining footprint.	5	-	Compliant	-
Indigenous plant species planted during rehabilitation.	N/A	-	-	Not yet applicable.
No faunal species collected, hunted, or killed on site.	5	-	Compliant	According to site management no faunal species are removed from site.
Poaching, and/or hunting addressed through an Environmental Awareness Plan	5	-	Compliant	-
<b>SECTION 102 EMPR – SURFACE WATER RESOURCES (2018 EMPR PG 58):</b>				
Diesel/hydrocarbons storage according to the DWS minimum requirements.	N/A	-	-	No diesel/hydrocarbons are stored in the extension area.
Drip trays used during refuelling of machinery.	5	-	Compliant	When applicable.
Waste stored, transported, and disposed of at a registered waste disposal site.	5	-	Compliant	Although no waste is stored at the extension area, the waste practices of the Quarry is compliant.
Waste handling/storage areas restricted to a designated waste handling area.	5	-	Compliant	
Waste bins weather and scavenger proof and securely placed to avoid waste overflows.	5	-	Compliant	

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
<b>SECTION 102 EMPR – AIR QUALITY (2018 EMPR PG 59):</b>				
Dust from gravel roads reduced using appropriate dust suppression measures.	5	-	Compliant	Dust suppression is extended to this area when needed.
Dust fallout monitoring implemented.	1	3	To be addressed	The fallout dust monitoring must include the extension area.
Work suspended during extreme windy conditions.	N/A	-	-	-
Vehicles maintained in a roadworthy condition to limit the emissions to air.	5	-	Compliant	-
<b>SECTION 102 EMPR – NOISE (2018 EMPR PG 59):</b>				
Equipment operating on site maintained in a workable condition to minimise noise emissions.	5	-	Compliant	-
Unnecessary lighting avoided.	5	-	Compliant	No lighting was added to the extension area.
Machineries neatly placed.	N/A	-	-	No machines were placed in the extension area yet.
<b>SECTION 102 EMPR – ARCHAEOLOGICAL AND CULTURAL SITES (2018 EMPR PG 59):</b>				
Mining area continually monitored for archaeological artefacts.	5	-	Compliant	-
Artefacts with significant conservation status removed prior to mining.	N/A	-	-	No artefacts were discovered yet.
<b>SECTION 102 EMPR – SOCIO-ECONOMIC (2018 EMPR PG 59):</b>				
No dangerous excavations left in rehabilitated areas.	N/A	-	-	Not yet applicable.
Entry and exit to the mining area controlled.	5	-	Compliant	-
No fires allowed on the mining area.	5	-	Compliant	-
Required heavy vehicle signs erected at the access point.	5	-	Compliant	-
<b>SECTION 102 ENVIRONMENTAL AUTHORISATION SITE SPECIFIC CONDITIONS (EA PG 5):</b>				
Mining area clearly demarcated, and all vehicles remain within the demarcated footprint.	1	3	To be addressed	The extension area must be demarcated with clearly visible beacons.
Blasting events communicated in writing to all abutting landowners two weeks prior to the scheduled blast. Proof of notifications recorded and included in the EAR.	5	-	Compliant	-

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Concurrent mining and rehabilitation adopted during the operation of the mining activities. A rehabilitation plan implemented and complied with the approved EMPr.	N/A	-	-	Concurrent rehabilitation of the extension area was not yet possible.
Wastewater generated not discharged into the natural environment. Wastewater contained and safely disposed.	N/A	-	-	No wastewater was generated in the extension area.
Dust control measures implemented. Loads transporting mined material covered with hessian sheets or watered down to ensure dust control in transit.	5	-	Compliant	-
Drainage contoured to ensure runoff is contained and do not culminate in off-site pollution.	N/A	-	-	No drainage problems were noted on site during the audit.
Alien Eradication Programme established and implemented on site.	3	3	Being addressed	See earlier comment regarding the management of alien invader species.
WULA applied for if required.	N/A	-	-	The extension area does not require authorisation in terms of the NWA.
Development footprint kept as small as possible not encroaching onto sensitive areas and neighbouring community.	TBC	-	-	Once the extension area was demarcated this can be established.
Upon closure: aftercare period of at least one year to remove alien invasive species implemented.	N/A	-	-	Not yet applicable.
<b>SECTION 102 ENVIRONMENTAL AUTHORISATION STANDARD CONDITIONS – COMMENCEMENT OF THE ACTIVITIES (EA PG 9):</b>				
All employees supplied with the necessary PPE	5	-	Compliant	-
EA provided to the site operator	5	-	Compliant	A copy of the EA is available on site.
Hauling roads clearly marked and appropriate signalling posted. Movement of vehicles restricted to areas outside of the drainage line or wet areas.	5	-	Compliant	-
Appropriate signage erected warning the public about the hazard around the site and presence of heavy vehicles and machinery.	5	-	Compliant	-

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Construction include design measures to allow surface and subsurface movement of water along the drainage lines so as not to impede natural surface and subsurface water flow and drainage measures promote the dissipation of stormwater runoff.	N/A	-	-	Not applicable for this mining operation.
Vegetation clearance limited to areas where the individual activities occur, and mitigation measures implemented to reduce the risk of erosion and alien species invasion.	3	3	Being addressed	The alien invader plants must be controlled on the denuded areas of the extension.
No protected plant species cut, disturbed, damaged, destroyed or the products possessed, collected, removed, transported, exported, donated, purchased, or sold without permission from DAFF.	5	-	Compliant	No protected plants were noted at the time of the inspection.
Topsoil and subsoil from construction areas protected from contamination or pollution. No stockpiles placed in drainage lines or where it will impede surface water runoff.	4	3	To be addressed	The topsoil of the extension area must be stored separately and may not be sold.
Contaminated soil removed to a licensed waste disposal facility and the site rehabilitated to the satisfaction of DWS. Onsite remediation and re-use of contaminated soil investigated prior to disposal.	N/A	-	-	No contaminated soil originated from the extension area during the audit period.
Integrated waste management approach implemented. Uncontaminated rubble re-used on site. No refuse placed, dumped, or deposited on the adjacent properties or public places and open spaces.	5	-	Compliant	Aliwal Quarry does follow and integrated waste management approach.
Costs incurred to remedy environmental damages borne by the person responsible for the damage.	N/A	-	-	Not applicable during the audit period.
Construction vehicles serviced and maintained to prevent excessive smoke, reduce noise pollution, and prevent oil leaks.	5	-	Compliant	All mining vehicles are kept in good condition.

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Residents on the property and surrounding areas informed of unusually noisy activities.	5	-	Compliant	Blasting notifications inform the residents of unusually noisy activities.
Dust suppression measures implemented.	5	-	Compliant	-
Mixing of cement, concrete, paints, solvent, sealants, and adhesives done in a specific area on concrete aprons or protected plastic linings.	N/A	-	-	Not applicable for the extension area during the audit period.
Heritage remains immediately reported to SAHRA.	N/A	-	-	
Material and excavated soil required for backfilling free of contamination from hydrocarbons.	5	-	Compliant	The overburden that will be used for rehabilitation was free of contamination during the audit.
Hydraulic fluid or chemicals stored in a concrete lined surface with bund walls designed in such a manner that any spillage is contained.	5	-	Compliant	All chemicals used on site is kept in the storerooms of Aliwal Quarry.
Chemical sanitation facilities provided with a ratio of 1 for every 15 workers, placed in such a way to prevent spills, and the contents disposed of at an authorised wastewater treatment works.	N/A	-	-	Employees make use of the Aliwal Quarry ablutions. No chemical toilets are needed on site.
Water uses authorised by the DWS.	N/A	-	-	Not applicable for the extension area.
Rehabilitation of the disturbed areas comply with the approved EMPR (2018).	N/A	-	-	Not yet applicable.
Waste management in accordance with the conditions of the EA (conditions 3.24 & 3.25).	5	-	Compliant	-
Waste storage site fitted with a firm, impermeable, chemical resistant floor, and roof.	5	-	Compliant	Although no waste is stored in the extension area the waste handling facilities of the Quarry do comply with the requirements.
Hydrocarbons stored in bund walls with adequate capacity to contain the maximum volume that is stored in the area. Uncontaminated stormwater prevented from meeting waste.	5	-	Compliant	-

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
<b>SECTION 102 ENVIRONMENTAL AUTHORISATION STANDARD CONDITIONS – MANAGEMENT OF ACTIVITIES (EA PG 12):</b>				
A copy of the EA and EMPR kept at the property.	5	-	Compliant	-
Content of the EMPR made known to all contractors, subcontractors, agent, and any other people working on the site. Updates submitted to the Department for approval.	5	-	Compliant	An induction was done (30 April 2024) with the relevant site employees where the EA and EMP was discussed.
Regular monitoring and maintenance of stormwater drainage facilities conducted.	N/A	-	-	Not yet applicable as no drainage facilities were established in the extension area.
Nuisance conditions or health hazards prevented.	5	-	Compliant	-
Non-recyclable waste disposed of at licensed waste management facilities.	5	-	Compliant	-
All liquid wastes diverted to sewer after testing water quality and receiving written approval from the relevant local authority.	N/A	-	-	No liquid wastes originates in the extension area.
Rehabilitation of the disturbed surfaces comply with the approved EMPR	N/A	-	-	Not yet applicable.
Name and contact details of the ECO sent to the Regional Manager within 30 days of commencement. ECO always available on site.	1	3	To be addressed	The Quarry needs to appoint a dedicated ECO and supply the DMRE with his/her contact details.
Footprint limited to the areas authorised and all other areas regarded as no-go areas.	TBC	-	-	The extension area must be demarcated with clear markers.
Erosion and soil loss prevented, and erosion stabilising implemented where necessary.	5	-	Compliant	No erosion problems were noted on site.
Personnel working with hazardous waste trained and records available.	5	-	Compliant	-
Storage skips and bins not overfilled.	5	-	Compliant	-
<b>SECTION 102 ENVIRONMENTAL AUTHORISATION STANDARD CONDITIONS – REPORTING TO THE DEPARTMENT (EA PG 14):</b>				
Annual reporting done and submitted to the DMRE in accordance with the requirements of the EA.	5	-	Compliant	The previous EPA was submitted to the DMRE in October 2023.

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
<b>SECTION 102 ENVIRONMENTAL AUTHORISATION STANDARD CONDITIONS – SITE SECURITY AND ACCESS CONTROL (EA PG 14):</b>				
Effective access control on site and signs indicating the risks displayed at the entrance.	5	-	Compliant	-
Weatherproof durable legible notices in at least three official languages displayed at the entrance to the site.	4	3	To be addressed	The signage at the entrance to the site does not display three official languages.
<b>SECTION 102 ENVIRONMENTAL AUTHORISATION STANDARD CONDITIONS – EMERGENCY PREPAREDNESS PLAN (EA PG 15):</b>				
Emergency preparedness plan in accordance with the EA conditions (7.1) implemented and annually reviewed.	5	-	Compliant	This forms part of the CoP's of the site.
Emergency register kept on site.	5	-	Compliant	The mine lists all accidents/incidents on an online SHEQ system.

**COMMENTS OR COMPLAINTS RECEIVED FROM I&AP'S**

**(APPENDIX 7 SUB-REGULATION 3(G) & (J)):**

No written environmental related complaints were received during the audit period.

**AUDITING OF EA, EMPR AND REPORTING THEREOF**

**(REGULATION 34):**

<b>Date of previous EAR/EPA:</b>	August 2023
<b>Proof of submission to DMR available:</b>	The previous EAR was submitted to the DMRE on 09 October 2023, and proof of this is available from the right holder.
<b>EAR/EPA compiled by independent person with environmental auditing expertise:</b>	This EAR was compiled by Ms Christine Fouché from Greenmined Environmental (Pty) Ltd.
<b>Potential and registered I&amp;AP's notified within 7 days of the submission date, and report available on publicly accessible website</b>	The holder of the mining right (Aliwal Dolerite Quarry (Pty) Ltd) must, within 7 days of submission, notify all potential and registered I&AP's of the submission of the report. The report will also be placed on the publicly accessible Greenmined website.

**GENERAL REPORT**

Compliance of the mining site with the 2011 EMPR, Section 102 EMPR (2018) and the Section 102 EA was reviewed during the site assessment. The mining area recorded a compliance score of 90% for the audit period which is a 6% increase from the previous audit (August 2023).

The mine is commended for the improvements made to infrastructure and buildings since the previous audit. A couple of fruit trees were also planted near the offices.

**Section 102 Amendment Application – Extension of the Mining Footprint:**

The Section 102 application for the extension of the mining footprint was granted in December 2022 and is presently with DMRE registry for finalisation.

According to management topsoil and overburden were stripped from the eastern side of the extension area that borders the existing pit. As discussed, the topsoil may not be mixed with the overburden, must be stockpiled separately, signposted and indicated on the mine plan. The extension area must be demarcated with visible beacons.

**Invader Plant Species:**

Problem plants such as Wild Tobacco (*Nicotiana glauca*), Large Thorn-apple (*Datura ferox*), and Dense-thorned Bitter Apple (*Solanum sisymbriifolium*) are still prevalent at the mining area. Added attention must be given to invader plant species control and the Alien Invader Management Action Plan must be updated at least annually.

Further to this, the eucalyptus and pepper trees germinating around the mine must be controlled. The large trees can be retained but all seedlings must be removed.

**Dirty Areas & Water Management:**

Since the previous audit, the chambers of the oil sump were cleaned, and the absorbent material (from the oil spill kit) is used to remove oil from the second chamber of the sump. The used absorbent material is then removed with the other hazardous waste of the mine by EnviroTech. The sludge from the first chamber of the sump was also disposed of as hazardous waste. As mentioned earlier, the water quality tests showed in 2023 that the last chamber of the oil sump contained hydrocarbons. New samples must be tested to determine if the cleaning of the system is affective.

The bund of the hazardous waste/used oil storage area must be sealed, and management must ensure that all drums and drip trays containing used oil or other chemicals are stored inside the bunded areas.

As mentioned earlier, the settling ponds are overgrown and needs to be cleaned, barricaded and signposted prior to being used again. The eucalyptus- and pepper trees that germinated in this area must also be removed.

Since the previous audit, the salvage yard was cleaned, and the unwanted scrap metal was sold. All the equipment containing hydrocarbons were removed from the salvage yard, and the hydrocarbon spills were cleaned.

The generator must still be placed in a bunded area, and the bund of the diesel tank must be increased to comply with the 110% capacity requirement. A berm must also be placed at the entrance to the diesel bowser parking area to prevent spills/water draining from the concrete lined area.

The chemical water quality results indicated elevated levels of nitrate that exceeds the limits for both sewage discharge as well as drinking water standards given by the National Water Act 1998 (ACT No. 36 of 1998). It also exceeds most GA (General Authorisations) limits. The data suggest that the nitrate most likely originates from blasting activity in the quarry (iWater, 2023). iWater further noted that Raumix must understand that the high nitrate levels will impact the environment and should be managed as it poses a significant environmental risk. Bioremediation or filtration management strategies must be implemented.

As mentioned earlier, the site is in the process of adding gabion baskets between the mine and the community land to prevent runoff water with a high sediment load leaving the site as the baskets will act as sediment filters once operational.

**Progressive Rehabilitation:**

The bridge currently being installed in the mined part of the quarry contributes to the progressive rehabilitation of the quarry. Once finished the bridge will connect the western side of the pit with the eastern side.

**DOCUMENT CHECKLIST:**

• Alien vegetation control plan & action plan	-	Present – to be updated
• Blasting Notifications	-	Present
• Blasting Procedure	-	Present
• Complaints Register	-	Complaints box and register
• Concurrent rehabilitation plan	-	To be developed
• Dust Monitoring Report	-	Present
• EMPR 2011	-	Present
• Environmental Awareness Plan	-	Present
• Environmental Performance Assessment (2023)	-	Present
• Fauna Sighting Book	-	To be developed
• Financial Provision (2023)	-	Present
• Incident Reports / Flash Reports	-	Present
• Long Term Mine Plan	-	To be developed
• Mine Plan (2024)	-	Present
• Mine Works Programme	-	Present
• Mining Right	-	Present
• Executed S102 Mining Right	-	To be added
• MSDS's	-	Present
• Noise Monitoring Report	-	Present
• Plant/Vehicle Inspection Records	-	Present
• Proof of Environmental Awareness Training	-	Present
• Proof of Waste Removal	-	Present
• Section 102 Application EA	-	Present
• Section 102 EMPR	-	Present
• Section 102 Granting Letter	-	Present
• Short Term Mine Plan	-	Present
• Social and Labour Plan	-	Present
• Waste Service Providers Registration/Certification	-	To be obtained
• Water Use Authorisation	-	Present
• Water Use Balance	-	Present to be updated
• Monitoring results	-	Dust Monitoring (Present) Water monitoring (Present) Fuel Consumption (Present) Electricity Consumption (Present) Waste Generation (Present)

**MATTERS TO BE ADDRESSED:**

1. Continue the clearing of invader plant species and monitor the cleared sections for reoccurrence;
2. Update the AVCP;
3. Draft a long term mine plan for the site;
4. Add the 9 m boundary pillar, topsoil and overburden stockpiles to the mine plan;
5. Educate the security guards on removing of snares;
6. Implement a fauna sightings book; to be done
7. Add signs to the overburden heaps;
8. Address the blasting related complaint;
9. Update the water balance diagram;
10. Increase water monitoring from annual to bi-annual as stipulated in the EMPR;

11. Develop an annual concurrent rehabilitation guideline;
12. Plant indigenous trees as required in the EMPR;
13. Clean all hydrocarbon spills;
14. Clean the settling ponds and ensure all wash water drain into the ponds;
15. Indicate the freeboard level on the settling ponds and arrange training with the relevant employees;
16. Designate a drum for the storage of fluorescence tubes;
17. Add a bund wall around the generator;
18. Test the water from the last chamber of the oil sump for hydrocarbon traces;
19. Implement bioremediation/filtration to address the high nitrate levels of the water in the quarry;
20. Obtain proof of registrations certificates from the waste service providers;
21. Seal the bund of the hazardous waste storage area;
22. Increase the capacity of the diesel tank bund and seal the walls;
23. Demarcate the boundaries of the extension area;
24. Ensure that the topsoil of the extension area is stockpiled and signposted;
25. Include the extension area in the fallout dust monitoring plan;
26. Dedicate an ECO for the site and supply the DMRE with his/her contact details;
27. Ensure the notices display at least three official languages;

**ABILITY OF EMPR TO ADEQUATELY MANAGE OR MITIGATE ENVIRONMENTAL IMPACTS  
(APPENDIX 7 SUB-REGULATION 3(E)):**

It is believed that the EMPR's (2011 and 2018) currently adequately manage and/or mitigate environmental impacts at the mining area.

**NEED FOR AMENDMENT OF THE EMPR:**

No need was identified for the amendment of the EMPR's of the site.

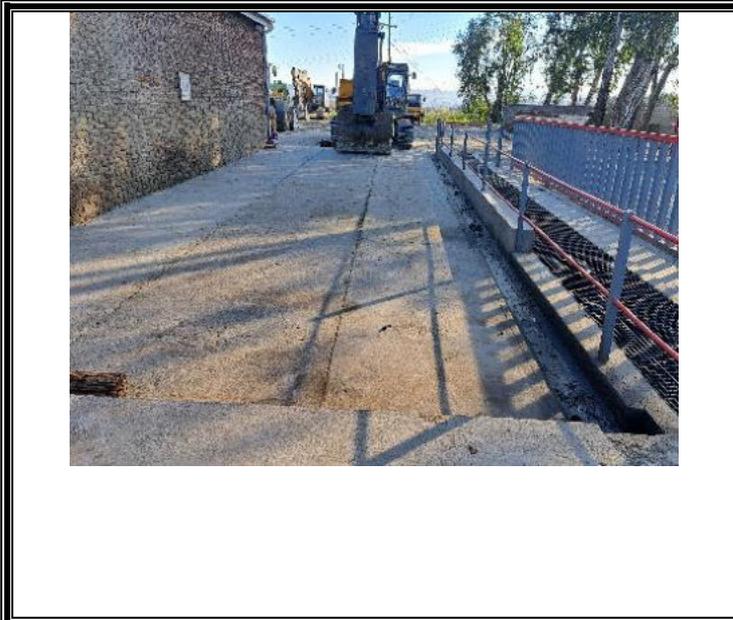
**FINANCIAL PROVISION:**

This report is accompanied by a reassessment of the financial provision calculation for the year 2024 that amounts to R 5 722 871.24. The 2024 financial provision exceeds the value of financial guarantee in place at the DMRE and the Right Holder may need to provide a shortfall amount upon departmental request.

**ECO SIGNATURE**

NAME:	SIGNATURE:	DATE:
Christine Fouche		11 June 2024

**PHOTOGRAPHS**



**Wash bay and oil sump improvements**



**Neatly managed workshop**



**Gas storage cage**



**Waste storage area where the bund must be sealed and all drums placed inside the bund**



**Drip trays in use and servicing taking place on paved area**



**Wash plant**



**Settling ponds to be cleaned**



**Processing plant**

**Pond at the plant**



**Bund wall to be added to the generator**

**Bins used on site**



**Clearing of problem plants in progress**



**Salvage yard cleaned up**



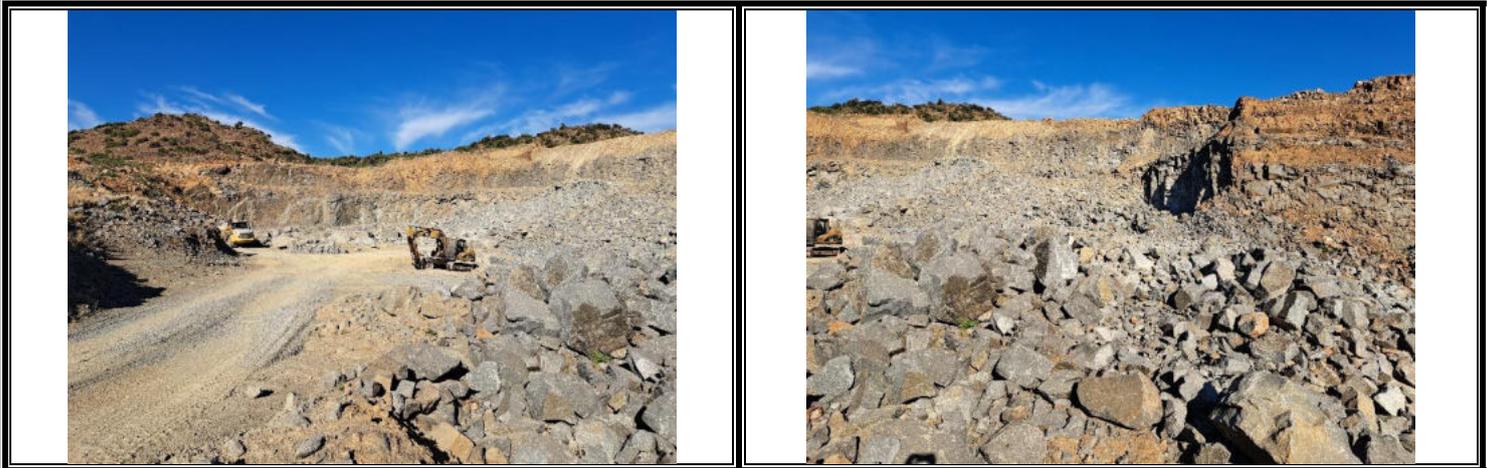
Sprayers added to alleviate dust



Problem plants to be cleared from site



Quarry pit where the bridge (under construction) can be seen



Quarry pit



Oversize rock storage area



**Stockpile area**



**Gabions being installed on site**



**Weigh bridge area**



**Peach tree planted on site**



**Diesel pump in bund**



**Bund of diesel tank to be increased**



**Bowser parking area**



SEPTIC TANK  
TARIFFS FOR DISTANCE  
R47.25 x 4 = R189.00  
R606.42 = R606.42  
TOTAL = R795.42



RAUMIX  
ALIWAL QUARRY

Joe Gqabi Municipality  
Conser Cole & Graham Street 2092 Bakily Ein  
9876  
VAT Registration Number: 4280128101  
Receipt No 10042024/1089  
Receipt Date 10/04/20 11:09  
R - RAUMIX ALIWAL QUARRY  
Honey suckling - Septic Tank - Other  
SEPTIC TANK ALIWAL QUARRY  
Amount 692,  
Vat Amount 103,  
Total 795,42  
Tender Amount 800,00  
Change 4,00  
Payment Type Ca  
Cashier Lassic Oh  
Cash Office Muleta  
Thank you.

**Proof that the municipality cleaned the septic tank**

WASTE DETAILS		Manifest No	
Process that generated the waste		ENV00001944	
Type: HW05		Date: 26/07/2023	
Waste Description		Booking Reference: PORS00206011	
MINERIALIZED SOIL		Instruction: COLLECTION, TRANSPORT, SAFE DISPOSAL	
10234 waste classification		GENERATORS DETAILS	
10228 class number		Site Name: RAUMIX	
Rate of Generation		Physical Address: ALIWAL QUARRY SOUTH	
Clean-Up		PLOT 2928 BUFFELSDADEN, ALIWAL NORTH	
Daily		Contact Details: 081 011 12345	
Weekly		Email: alwal@raumix.co.za	
Monthly		Order Number: PORS00206011	
Quarterly		TRANSPORTERS DETAILS	
Annual		Company Name: ENVIRO-TECH SA (PTY) LTD	
Other		Physical Address: 3 FRIKKIE VAN KRAAYENBURG RD	
X		NEW EAST END BLOEMFONTEIN	
Physical Nature		Contact Details: 081 011 12345	
Solid (Moisture 0-39%)		Fleet Number: FVCG3F5	
Semi-Solid (Moisture 40-59%)		Driver Name: SILAS MONOSI	
Liquid (Moisture 60-79%)		DISPOSAL SITE/WASTE MANAGER/CONSIGNEE DETAILS	
Liquid (Moisture 80-100%)		Site Name: ENVIRO-TECH SA	
Odour		Physical Address: 3 FRIKKIE VAN KRAAYENBURG STR	
None		NEW EAST END, BLOEMFONTEIN	
Low		Contact Details: 081 011 12345	
Moderate		WIS Number: D10970-01	
Strong		WASTE DIVERTED TO FACILITY	
Volume		Disposal Site: H-H 12/9/11/L444/3	
Kg/Lt		WIS GPL-03-844	
Ton		Reference	
210L			
Skip			
Other			
10			
Treatment / Disposal Method			
Yes			
No			
X			

Generators declaration	
Control of the consignment is fully and accurately described, classified, packed, marked and labelled and is proper condition for transportation in accordance with the applicable laws & regulations	
Name: <u>THREMBI</u>	
Signature: <u>[Signature]</u>	
Date: <u>26/07/2023</u>	

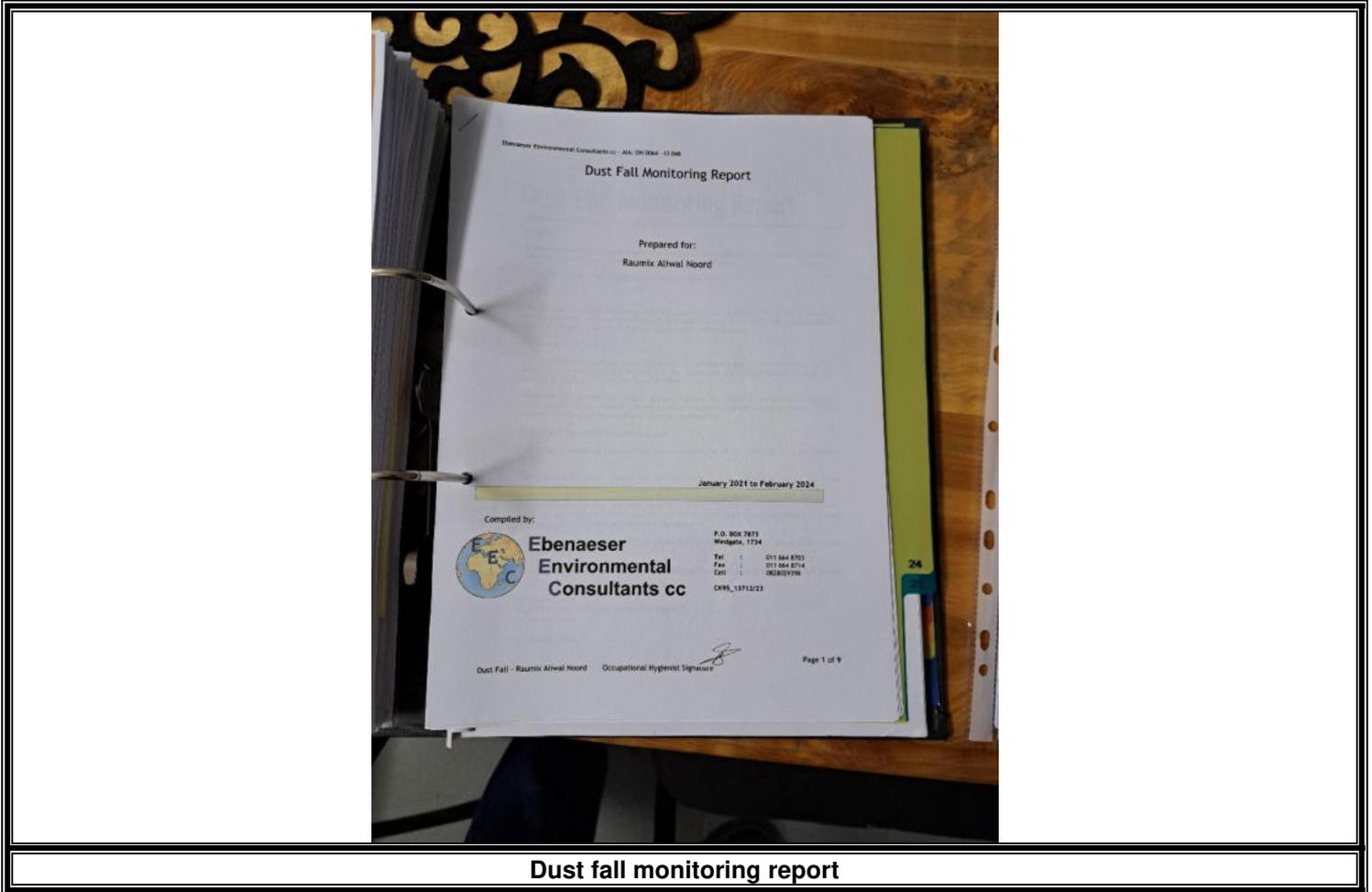
  

Transporters	
Acknowledgement of receipt of the waste	
Name: <u>Monosi</u>	
Signature: <u>[Signature]</u>	
Date collected / received: <u>26/07/2023</u>	

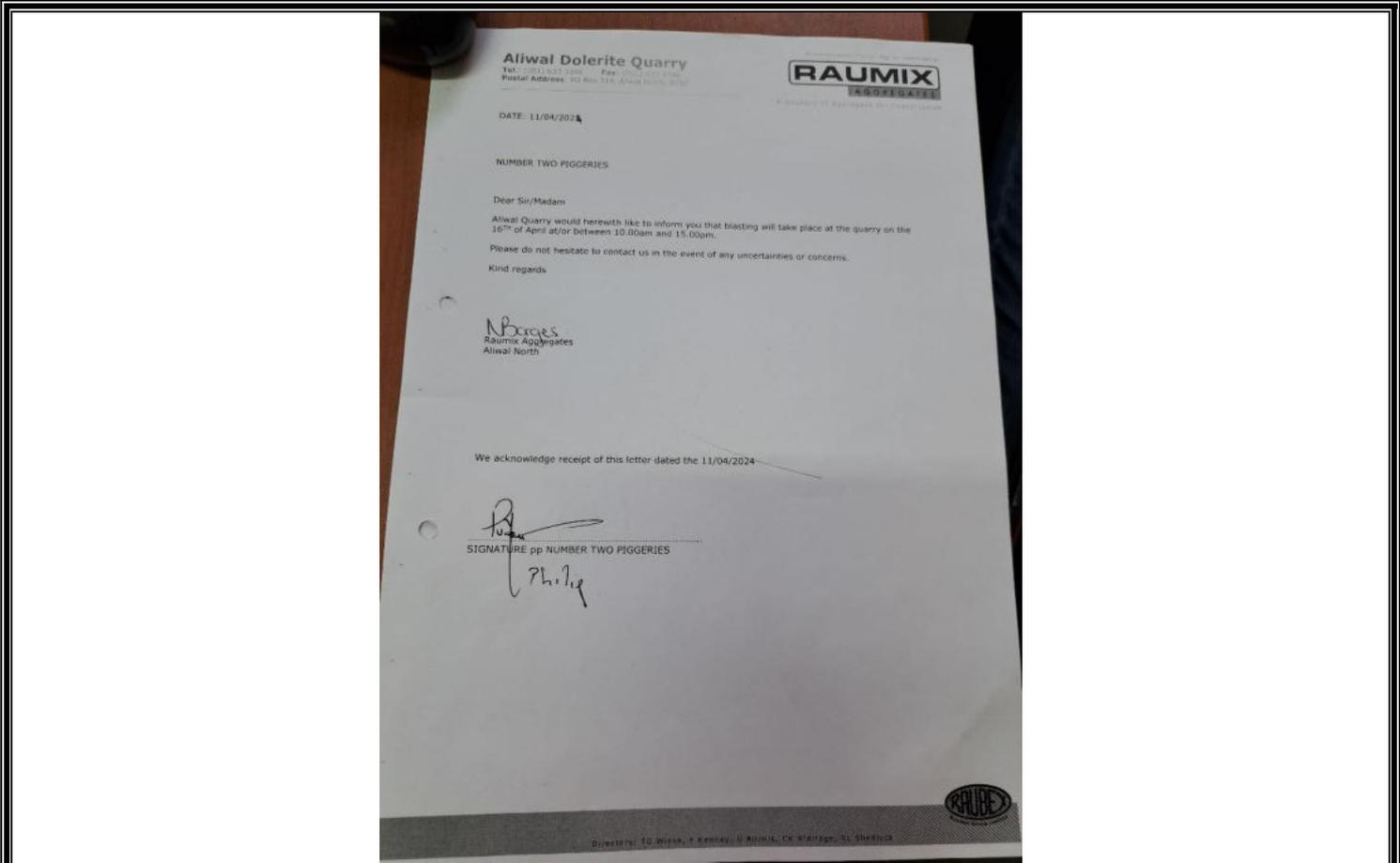
Disposal site/Consignee/Waste Manager	
Acknowledgement of receipt of materials	
Name:	
Signature:	
Date collected/received:	

**EnviroTech removed the contaminated soil**



**Dust fall monitoring report**

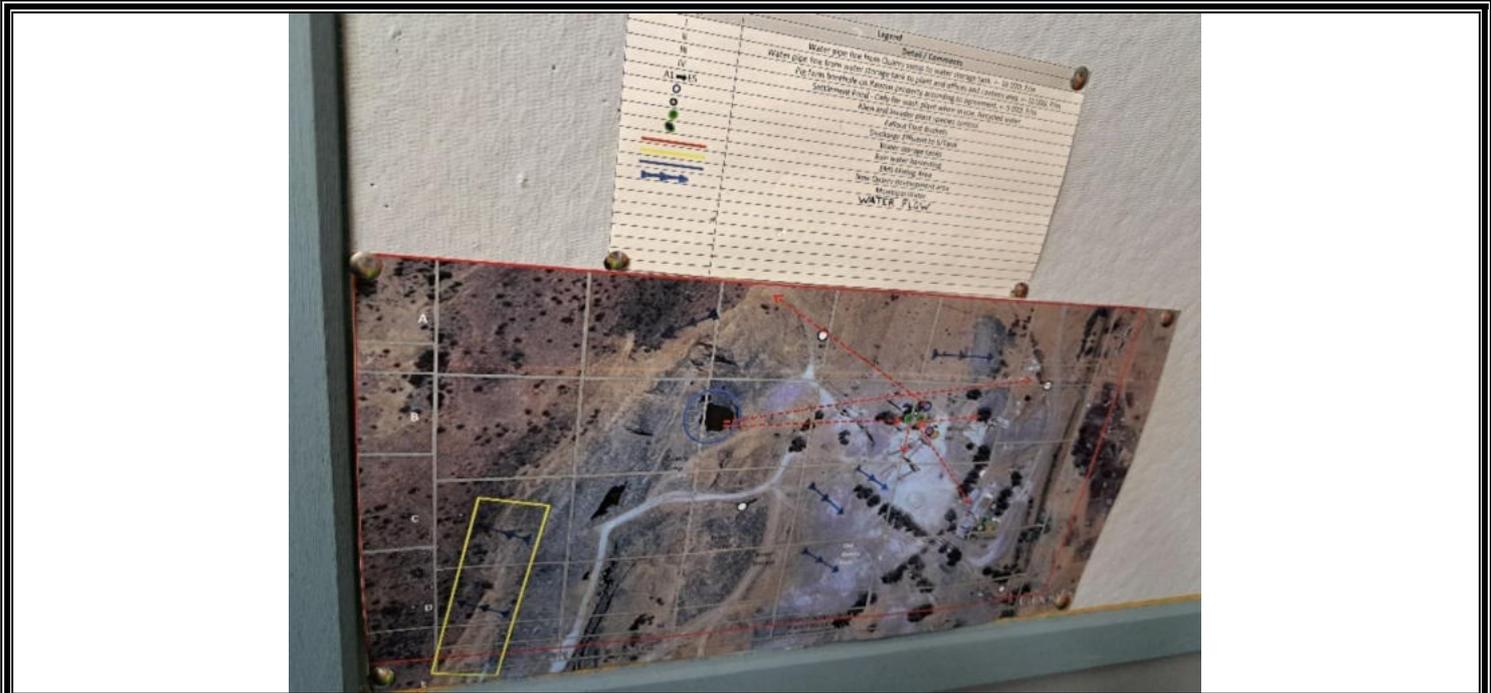




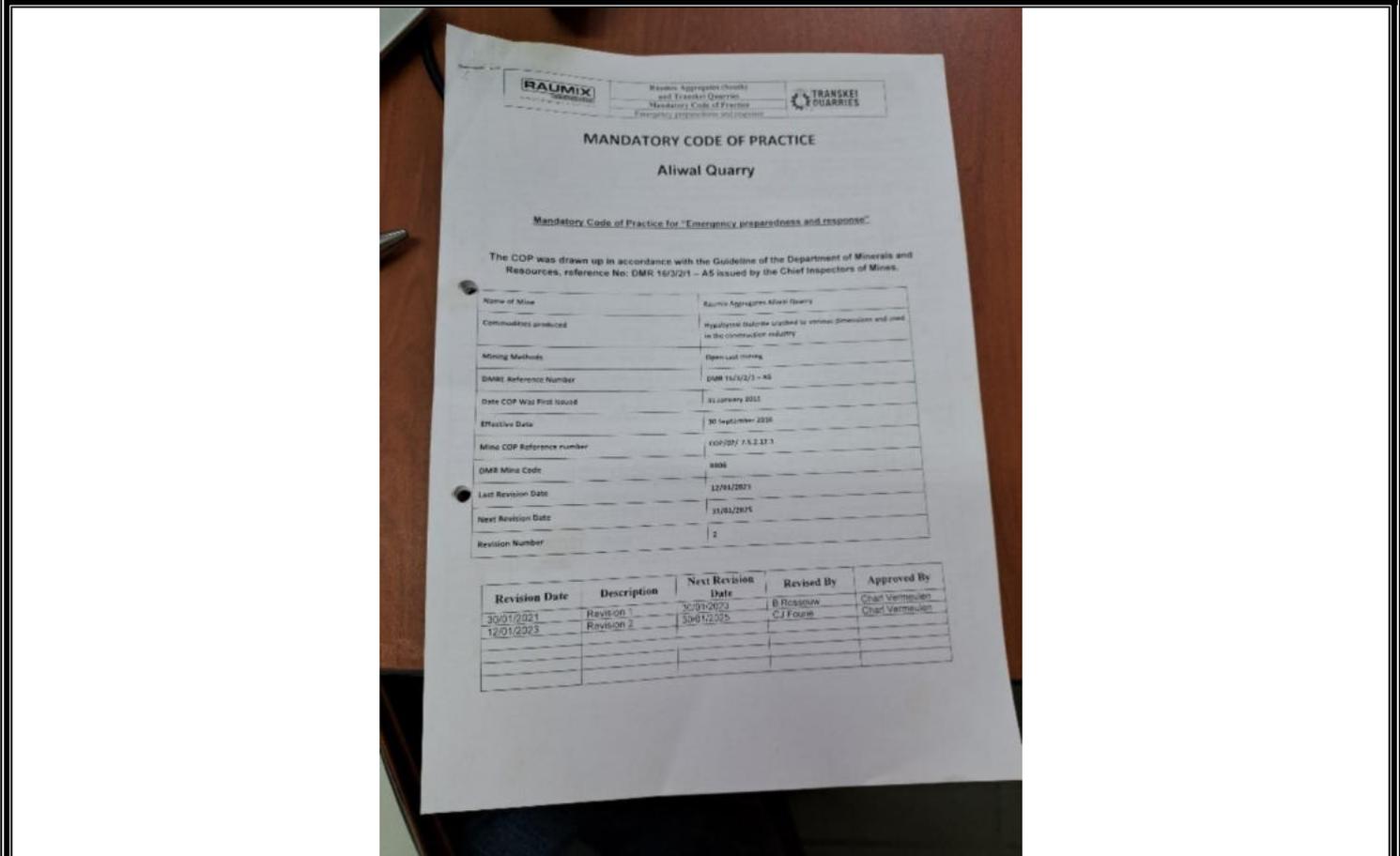
Proof of blasting notifications



2024 Mine Plan



**Water reticulation map**



**Emergency response plan**

