

# PROPOSED MINING OF AGGREGATE ON PORTION 18 (PORTION 2) OF THE FARM LOUTERBRONNEN 250, THEUNISSEN DISTRICT FREE STATE PROVINCE

## ENVIRONMENTAL PERFORMANCE ASSESSMENT / ENVIRONMENTAL AUDIT REPORT



<b>DMR REFERENCE NUMBER:</b>	<b>FS 30/5/1/2/2/10040 MR</b>
<b>AUDIT PERIOD:</b>	<b>June 2021 – May 2022</b>

**PREPARED FOR:**

Vengablox (Pty) Ltd  
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**PREPARED BY:**

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**ANNUAL ENVIRONMENTAL PERFORMANCE ASSESSMENT  
LOUTERBRONNEN AGGREGATE QUARRY**

**1. PROJECT SPECIFIC DETAIL**

ITEM	MINING RIGHT/PERMIT HOLDER
<b>Company Name</b>	Vengablox (Pty) Ltd
<b>Contact Person</b>	Mr. M. du Plessis
<b>Tel Number</b>	N/A
<b>Cell Number</b>	083 410 8286
<b>Postal Address</b>	PO Box 202, Theunissen, 9410
ITEM	AUTHOR CONSULTANT DETAIL
<b>Company Name</b>	Greenmined Environmental (Pty) Ltd
<b>Contact Person</b>	Christine Fouche
<b>Cell Number</b>	082 811 8514
<b>E-mail Address</b>	<a href="mailto:Christine.f@greenmined.co.za">Christine.f@greenmined.co.za</a>
<b>Postal Address</b>	Postnet Suite 62 Private Bag x15 Somerset West 7129
ITEM	LOCATION AND AREA INFORMATION
<b>Site Name</b>	Louterbronnen Aggregate Quarry
<b>Property Description</b>	Farm Name: Portion 18 (Portion 2) of the farm Louterbronnen 250 21 Digit Surveyor General Code: F03300000000025000018
<b>Location</b>	±2 km south-east of Theunissen
<b>Size of Mining Area</b>	17.9 ha
<b>Site Coordinates:</b>	A. 28°24'44.18" S; 26°43'37.23" E
	B. 28°24'46.62" S; 26°43'32.64" E
	C. 28°24'49.91" S; 26°43'31.86" E
	D. 28°25'04.37" S; 26°43'39.34" E
	E. 28°24'57.48" S; 26°43'53.11" E



## ANNUAL ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY

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**ANNUAL ENVIRONMENTAL PERFORMANCE ASSESSMENT  
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**2. ENVIRONMENTAL AUDIT REPORT**

**PROJECT DETAIL**

<b>Permit / Right Number:</b>	FS 30/5/1/2/2/10040 MR	<b>Date of Commencement:</b>	15 May 2019
<b>Site Name:</b>	Louterbronnen Aggregate Quarry	<b>Inspection Date:</b>	03 June 2022
<b>Permit / Right Holder:</b>	Vengablox (Pty) Ltd	<b>Other Authorisations:</b>	General Authorisation: 27/2/1/C741/13
<b>Report Number:</b>	24 (EPA 03)		

**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 seventeen years experience in doing environmental impact assessments and compliance monitoring in South Africa.
<b>DECLARATION OF INDEPENDENCE:</b>	<p>I Christine Fouche 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.</li> </ul> <p align="center"></p> <p align="center">Signature of ECO    Date: 09 June 2022</p>

## ANNUAL ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY

### SCOPE & PURPOSE OF ENVIRONMENTAL AUDIT

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

This environmental performance assessment (EPA) / environmental audit report (hereafter referred to as the EPA) was compiled in terms of the requirements of the NEMA EIA Regulations, 2014, (as amended).

#### **OBJECTIVE:**

The objective of the EPA is to evaluate compliance of the operational activities with the environmental management programme (EMPR) and Environmental Authorisation as approved by the DMRE.

#### **INSPECTED AREAS:**

The inspection included an assessment of the following areas:

- Office and parking area;
- Workshop and wash bay;
- Diesel tank, and chemical storage area;
- Washing and screening plant area;
- Settlement pond for processing water;
- Quarry pit;
- Overburden and topsoil dumps;
- Stockpile area; and
- General working areas;

In order to establish the environmental compliance assessment of the operation, the mining site was inspected on foot by the Environmental Control Officer, Christine Fouche of Greenmined Environmental accompanied by site management.

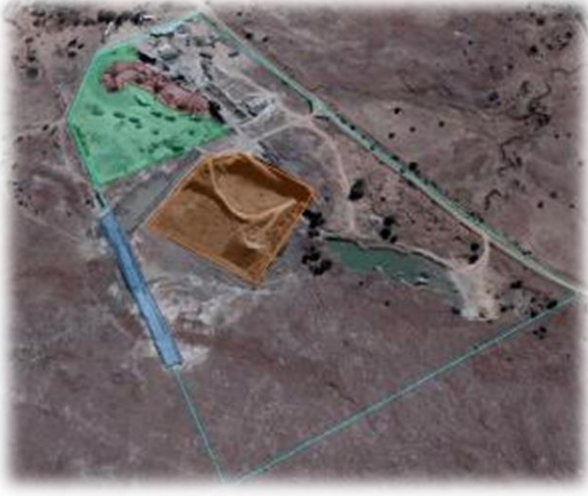
### **ASSUMPTIONS, UNCERTAINTIES OR GAPS IN KNOWLEDGE**

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

The assumptions made in this document, stem from specific information gathered during the site audit and background information gathered from site management.

**ANNUAL ENVIRONMENTAL PERFORMANCE ASSESSMENT  
LOUTERBRONNEN AGGREGATE QUARRY**

**LOCATION**

<b>Site Location:</b>	The mine is located ±2 km south-east of Theunissen. The mining footprint was approved over the entire extent of Portion 18 (Portion 2) of the farm Louterbronnen 250. The GPS coordinates to the entrance of the site are 28°24'44.17"S; 26°43'37.76"E.	
<b>Site Map:</b>		
<b>Site Coordinates:</b>	28°24'44.18" S	S 26°43'37.23" E
	28°24'46.62" S	S 26°43'32.64" E
	28°24'49.91" S	S 26°43'31.86" E
	28°25'04.37" S	S 26°43'39.34" E
	28°24'57.48" S	S 26°43'53.11" E

**PROJECT DESCRIPTION**

The right holder mines the quarry for dolerite by blasting, using explosives in order to loosen the hard rock. The material is then loaded and hauled to the existing crushing, screening and washing plants where it is processed into different sized dolerite. The dolerite is stockpiled where after it is transported to clients using trucks and trailers via the existing access roads linking the farm to the R708. All activities are contained within the boundaries of the site.

**SITE CONDITIONS**

Sunny clear windless day, with dry soil conditions.

**ANNUAL ENVIRONMENTAL PERFORMANCE ASSESSMENT  
LOUTERBRONNEN AGGREGATE QUARRY**

**REPORTABLE ENVIRONMENTAL INCIDENTS**

<b>Incident Date:</b>	N/A
<b>Incident No:</b>	N/A
<b>Incident:</b>	No Environmental Incidents at this stage
<b>How addressed:</b>	N/A
<b>When addressed:</b>	N/A

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

<b>COMPLIANCE SCORE</b>	<b>DESCRIPTION</b>
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

<b>NON-COMPLIANCE SCORE</b>	<b>DESCRIPTION</b>
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

**ENVIRONMENTAL PERFORMANCE ASSESSMENT  
LOUTERBRONNEN AGGREGATE QUARRY**

**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	5	-	Compliant	-
Copy of the EA and EMPR available on site	5	-	Compliant	-
Mineral and Petroleum Resources Development Act, 2002 (Act No 28 of 2002)	5	-	Compliant	-
Mining right available on site	5	-	Compliant	-
Mine plan annually reviewed	5	-	Compliant	-
National Environmental Management: Waste Act, 2008 (Act No 59 of 2008)	5	-	Compliant	-
National Water Act, 1998 (Act 36 of 1998)	5	-	Compliant	-
GA Authorisation on site	5	-	Compliant	-
National Environmental Management: Biodiversity Act, 2004 (Act No 10 of 2004) (NEM:BA)	5	-	Ongoing	Site management continuously remove the problem plants that germinate on site.
Hazardous Substances Act, 1973 (Act 15 of 1973)	5	-	Compliant	-
National Heritage Resources Act, 1999 (Act No 25 of 1999)	5	-	Compliant	The heritage site is fenced and protected from impacts.
Mine Works Programme	5	-	Compliant	-
Social Labour Plan	5	-	Compliant	-
Copies of Financial Provision Calculation (updated) and Annual Performance Audit (EPA) present	5	-	Compliant	-
Waste register and Permits for waste removal	5	-	Compliant	-
Complaints Register Present	5	-	Compliant	-
Environmental Awareness training	5	-	Compliant	-
<b>ASPECTS OF THE AFFECTED ENVIRONMENT</b>				
<b>Topsoil: Overburden Management (EMP PG: 55, 97, 100)</b>				
Topsoil stripping	N/A	-	-	Not applicable during the audit period as the area being mined is previously disturbed and no other topsoil stripping was needed.
Topsoil storage (heaps not exceeding 1.5 m)	5	-	Compliant	-



**ENVIRONMENTAL PERFORMANCE ASSESSMENT  
LOUTERBRONNEN AGGREGATE QUARRY**

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Topsoil heaps that are stored for longer than 6 months: Naturally or artificially vegetated with, indigenous grass species.	5	-	Compliant	-
Overburden stripped & stockpiled	5	-	Compliant	-
Stockpiles monitored for erosion, weeds and foreign matter	4	3	Ongoing	A few problem plants remain that needs to be removed.
Topsoil returned to rehabilitated area	N/A	-	-	No rehabilitation has occurred up to date.
<b>Vegetation (EMP PG: 57, 100, 103)</b>				
Protected plants (if any) sheltered from mining activities	N/A	-	-	No protected, endangered or declining species have been recorded within the mining area.
Removal of vegetation limited to smallest possible area	5	-	Compliant	-
Aliens & weeds controlled on site	5	-	Ongoing	As mentioned earlier this is an ongoing action being implemented by site management.
<b>Fauna (EMP PG: 58, 59, 103):</b>				
All animals, birds and reptiles protected on site.	5	-	Compliant	-
<b>Air Quality and Noise (EMP PG: 56, 98, 99):</b>				
Dust monitoring plan implemented	5	-	Compliant	-
Dust suppression implemented	5	-	Compliant	-
Speed on access road limited to 40 km/h	5	-	Compliant	-
Dust monitoring equipment operational	5	-	Compliant	-
Mining equipment serviced regularly to ensure noise emissions are minimized	5	-	Compliant	-
Noise control	5	-	Compliant	The noise exposure of the employees are monitored by EEC.
Blasting vibration and blast noise monitoring implemented on site	5	-	Compliant	-
I&AP and stakeholders informed prior to a blast.	5	-	Compliant	The proof of the blasting notifications is available on site.
<b>Surface and Storm Water Management (EMP PG: 57, 101):</b>				
Storm water Management Plan implemented on site	5	-	Compliant	-
Storm water diverted around the mining area and access roads to prevent erosion	5	-	Compliant	Where possible.

## ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Mining conducted in accordance with the Best Practice Guidelines for small scale mining	5	-	Compliant	At the time of the inspection this appeared to be true.
Areas with erosion reinstated	N/A	-	-	No areas of concern were noted on site.
<b>Visual Exposure (EMP PG: 55, 97, 55):</b>				
Is the contractor implementing good visual and housekeeping standards	5	-	Compliant	The housekeeping was to standard at the time of the inspection.
Height of product stockpiles determined based on the visibility of the site	5	-	Compliant	-
<b>Hazardous Chemical Management (EMP PG: 58, 102, 103):</b>				
Hazardous material stored within a bunded area (110% capacity)	5	-	Compliant	The hazardous waste is stored in a designated bunded area.
Regular vehicle management is done at the workshop	5	-	Compliant	-
Drip trays present when refuelling is done outside the service bay	TBC	-	-	This needs to be confirmed as no refuelling was done at the time of the inspection.
Mining equipment mechanically sound without visible oil leaks	5	-	Compliant	This appeared true at the time of the inspection.
Hazardous spills cleaned up, stored and disposed of according to the acceptable procedures and methods	5	-	Compliant	-
Hazardous waste removed by a registered waste handling contractor	5	-	Compliant	Oilkol (Pty) Ltd collects the hazardous waste of the site. As discussed on site, another company was contacted for a quote to remove the hazardous waste not collected by Oilkol (Pty) Ltd.
<b>Waste Management (EMP PG: 58, 102):</b>				
Site free of day-to-day litter	5	-	Compliant	-
Suitable covered receptacles available at all times and conveniently placed for the disposal of waste	5	-	Compliant	All the waste bins were fitted with lids.
General waste dumped at a recognised landfill site	5	-	Compliant	Records have been kept regarding the waste removed to the landfill site (date of removal and weight)
No waste stockpile area allowed outside the boundaries of the mining area	5	-	Compliant	-
Proper sanitation facilities available to employees	5	-	Compliant	-

**ENVIRONMENTAL PERFORMANCE ASSESSMENT  
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DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
<b>Potable Water and Ablution Facilities</b>				
Ablution facilities available on site more than 200 m from a watercourse	5	-	Compliant	-
Potable water available on site for use of workers	5	-	Compliant	-
Effluent water from the camp washing facility disposed of in a French drain, situated more than 200 m from a watercourse	N/A	-	-	-
<b>Fire Management</b>				
Firefighting equipment available on-site	5	-	Compliant	-
No open fires at mining site allowed	5	-	Compliant	-
<b>Mine and Equipment Management</b>				
Mining area demarcated with visible beacons	5	-	Compliant	-
Mining conducted within approved footprint area	5	-	Compliant	-
Unnecessary surface disturbance avoided	5	-	Compliant	-
<b>Access Roads, Vehicle and Transporting of Material (EMP PG: 59, 104, 105):</b>				
Access road maintained	5	-	Compliant	-
Movement of project related vehicles and machinery restricted to the approved mining area	5	-	Compliant	-
All trucks weighed before leaving the site in order to prevent overloading	5	-	Compliant	-
Speed limits enforced within the mining area	5	-	Compliant	-
Weighbridge slips filled on-site and are available for auditing	5	-	Compliant	-
<b>Employee and Safety Management (EMP PG: 59, 104):</b>				
Workers inducted and informed of EMP conditions	5	-	Compliant	-
Workers provided with PPE	5	-	Compliant	-
Appropriate notification signage erected at the mining site, warning the public about the hazard around the mining site & presence of heavy vehicles within the mining area.	5	-	Compliant	-
Weatherproof, durable, legible notices displayed at the entrance to the site.	5	-	Compliant	-

**ENVIRONMENTAL PERFORMANCE ASSESSMENT  
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DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Effective access control to prevent unauthorised entry.	5	-	Compliant	-
Surrounding land users informed of blasting events	5	-	Compliant	-
Audible warning of a pending blast must be given at least 3 minutes in advance of the blast	5	-	Compliant	-
Measures implemented to limit fly rock	5	-	Compliant	-
Fly rock that falls beyond the working area collected and removed	5	-	Compliant	-

**ENVIRONMENTAL PERFORMANCE ASSESSMENT  
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**COMMENTS OR COMPLAINTS RECEIVED FROM I&AP' S**  
**(APPENDIX 7 SUB-REGULATION 3(G) & (J)):**

No complaints were received during the audit period.

**AUDITING OF EMP AND REPORTING THEREOF**  
**(REGULATION 34):**

<b>Date of previous EAR/EPA:</b>	May 2021
<b>Proof of submission of previous EAR/EPA to DMRE available:</b>	The EPA was submitted to the DMRE on 17 June 2021.
<b>EAR/EPA compiled by independent person with environmental auditing expertise:</b>	Greenmined Environmental (Pty) Ltd compiled the EPA.
<b>Potential and registered I&amp;AP's notified within 7 days of the submission date, and report available on publicly accessible website</b>	No registered I&AP's exist that needs to be notified of the document. The EPA is however available on the Greenmined website that is a publicly accessible website.

**GENERAL REPORT**

Compliance of the mining site with the EMPR and EA approved by DMRE was reviewed during the site assessment. The mining area recorded a compliance score of 99% for the audit period.

The overall appearance of the site is neat and managed to standard. As mentioned earlier, some weeds/invaser plants remain on site. However, site management were in the process of removing these plants at the time of the inspection.

The layout of the washbay was improved and conveyor belts were used to prevent wash water from running past the oil sump catch pit. As discussed on site, this pit must always be kept clean. Site management is also in the process of updating the oil sump chambers to improve efficiency.

At the time of the inspection all the refuse bins were fitted with lids as requested during the previous audit.

**ENVIRONMENTAL PERFORMANCE ASSESSMENT  
LOUTERBRONNEN AGGREGATE QUARRY**

**DOCUMENT CHECKLIST:**

<b>RELEVANT DOCUMENTATION</b>	<b>PRESENT ON SITE</b>	<b>COMMENTS</b>
Mining right	Yes	-
Mine works programme	Yes	-
Social and labour plan	Yes	-
Approved EMPR	Yes	-
EA	Yes	-
Regulation 42 Mine Plan (annually updated)	Yes	-
Financial Provision Calculation (2021)	Yes	-
EPA (2021)	Yes	-
General Authorisation	Yes	-
Waste register and Permits for waste removal	Yes	-
Incidents register	Yes	-
Complaints register	Yes	-
Proof of environmental awareness training	Yes	-
MSDS's for chemicals	Yes	-
Written notice to neighbours of each blasting event	Yes	-
Appointment of an on-site ECO	Yes	-
Emergency Preparedness Plan	Yes	Being updated.
Invasive plant species plan (part of the EIAR and EMPr – appendix J)	Yes	-

**MATTERS TO BE ADDRESSED:**

- Continue with the upgrading of the washbay and oil sump.
- Remove the remaining weeds/invader plants.
- Update the Emergency Preparedness Plan.

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

The approved EMPR and EA of the mine adequately manage/mitigate the environmental impacts on site, and no need was identified to amend the said documents.

**FINANCIAL PROVISION:**

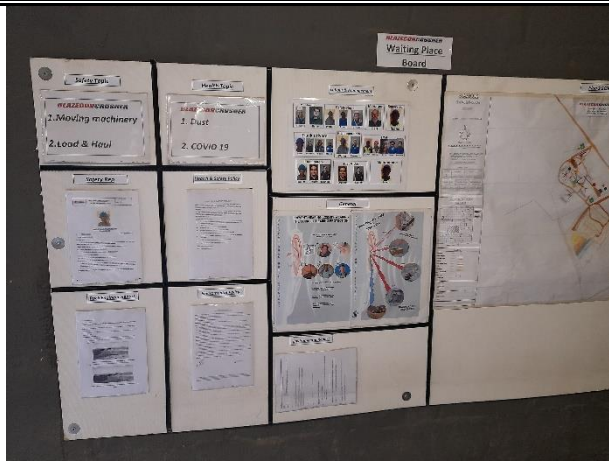
This EPA is accompanied by the annual review of the financial provision amount for the rehabilitation of the mining area. The right holder has a rehabilitation amount of R 1 069 891.00 lodged with the DMRE. The 2022 financial provision required to rehabilitate the mining area in accordance with the Guideline Document for the Evaluation of the Quantum of Closure-related Financial Provision by a Mine and as prescribed in terms of Regulation 54 (1) is R 1 069 891.00. The 2022 financial provision does not exceed the value of rehabilitation amount in place at the DMRE, and the right holder therefore does not have to provide a shortfall.

**ECO SIGNATURE**

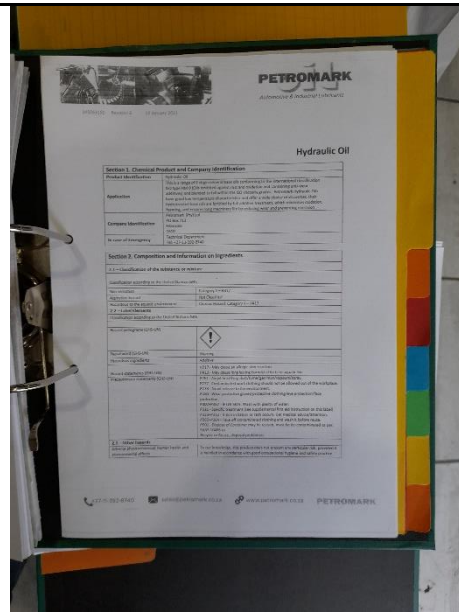
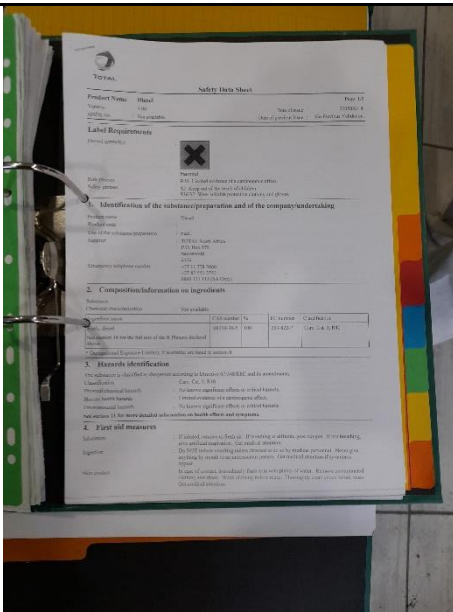
<b>NAME:</b>	<b>SIGNATURE:</b>	<b>DATE:</b>
Christine Fouche		09 June 2022

## PHOTOGRAPHS

### PROOF OF DOCUMENTATION



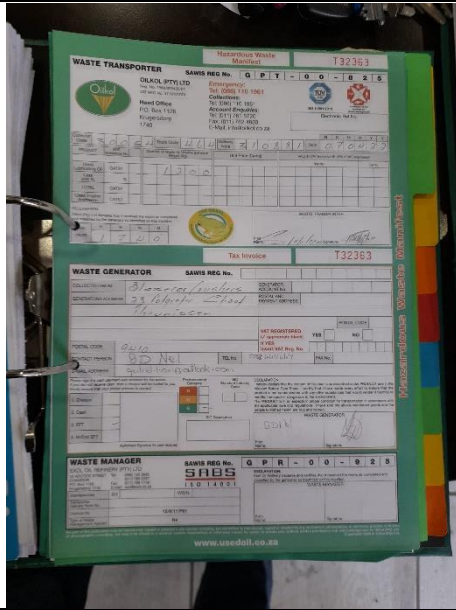
**Notice boards informing employees of important matters**



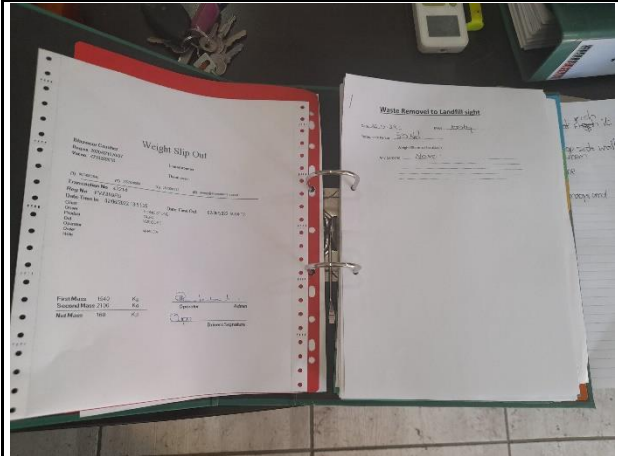
**16-point MSDS's**

# ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY

## PROOF OF DOCUMENTATION



**Hazardous waste removal slip from Oilkol**



**Waste removal slip**

## SITE RELATED PHOTOS



**Hazardous waste bins fitted with lids**



**Hazardous waste storage area**



**General waste bins fitted with lids**



**Updated washbay**



**ENVIRONMENTAL PERFORMANCE ASSESSMENT  
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**SITE RELATED PHOTOS**



**Processing area and salvage yard neatly managed**



**Quarry pit**



**Dust monitoring equipment**



**Processing area**