

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

ENVIRONMENTAL AUDIT REPORT



DMR REFERENCE NUMBER:	FS 30/5/1/2/2/10040 MR
AUDIT PERIOD:	February 2021

PREPARED FOR:

Vengablox
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**ENVIRONMENTAL PERFORMANCE ASSESSMENT
LOUTERBRONNEN AGGREGATE QUARRY**

1. PROJECT SPECIFIC DETAIL

ITEM	MINING RIGHT/PERMIT HOLDER
Company Name	Vengablox
Contact Person	Mr. M. du Plessis
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ITEM	AUTHOR CONSULTANT DETAIL
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ITEM	GREENMINED ENVIRONMENTAL CONSULTANT DETAIL
Company Name	GreenMined Environmental
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E-mail Address	Murchellin.s@greenmined.co.za
Postal Address	Suite 62, Private Bag X15, Somerset West, 7129
ITEM	LOCATION AND AREA INFORMATION
Site Name	Louterbronnen Aggregate Quarry
Property Description	Farm Name: Portion 18 (Portion 2) of the farm Louterbronnen 250 Magisterial District: Theunissen 21 Digit Surveyor General Code: F03300000000025000018
Location	±2 km south-east of Theunissen
Size of Mining Area	Application area: 17.9ha
Site Coordinates:	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



ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY

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**ENVIRONMENTAL PERFORMANCE ASSESSMENT
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ENVIRONMENTAL AUDIT REPORT

PROJECT DETAIL

Permit / Right Number:	FS 30/5/1/2/2/10040 MR	Date of Commencement:	15 May 2019
Site Name:	Louterbronnen Aggregate Quarry	Inspection Date:	26 February 2021
Permit / Right Holder:	Vengablox (Pty) Ltd	Other Authorisations:	24 March 2017
Report Number:	12		

DETAIL OF AUDITOR

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

ECO:	Gerhard Botha
EXPERTISE:	Mrs. GA Botha has 9 years of experience in environmental legal compliance audits, (GIS) geographic information system, mining right, and permit applications and applications for environmental authorizations & Water use applications.
DECLARATION OF INDEPENDENCE:	<p>I Gerhard Botha declare that –</p> <ul style="list-style-type: none"> • I act as independent environmental control officer in this compliance audit; • 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; • I have expertise in conducting environmental compliance audits, including knowledge of the Act and regulations that have relevance to the activity; • I will adhere to and comply with all responsibilities as indicated in the National Environmental Management Act and Environmental Impact Assessment Regulations. • 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. <p align="center">  Signature of ECO </p> <p align="right">Date: 13 March 2021</p>

ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY

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.

OBJECTIVE:

The objective of the environmental audit report (EAR) is to evaluate compliance of the operational activities with the environmental management programme (EMPR) and mining permit.

INSPECTED AREAS:

The inspection included an assessment of the following areas:

- Washing and Screening plant area;
- Earthmoving and excavating equipment
- Settlement pond for processing water
- Water pump for settling pond
- Site Vehicles
- Overburden and topsoil dumps;
- Stockpiles;
- General working area
- Office area;
- Parking area for visitors and site vehicles with a concrete floor
- Site Storage Area

In order to establish the environmental compliance assessment of the operation, the mining site was inspected on foot by the Environmental Control Officer, Gerhard Botha of Greenmined Environmental.

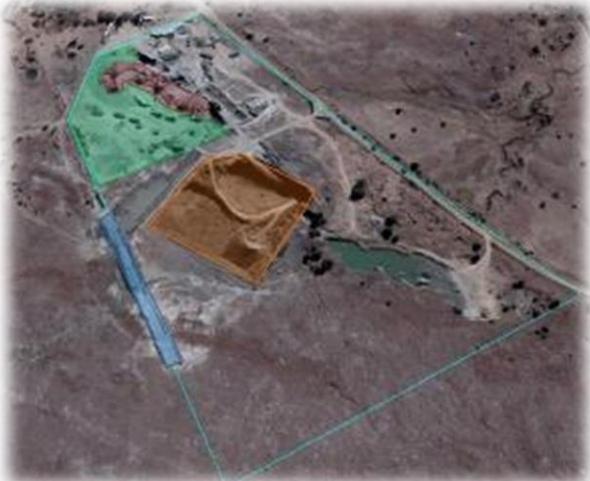
ASSUMPTIONS, UNCERTAINTIES OR GAPS IN KNOWLEDGE

(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.

ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY

LOCATION

Site Location:	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.											
Site Map:												
Site Coordinates:	<p>Satellite view of the approved mining area (blue polygon), where the blue shaded polygon indicate the water management area (±0.3 ha), the orange shaded polygon shows the quarry pit (±2 ha), the green shaded area represents the disturbed general surface (±1.6 ha), and the red shaded polygon shows the processing plant (±5 754 m³). (Image obtained from Google Earth).</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">28°24'44.18" S</td> <td style="width: 50%;">S 26°43'37.23" E</td> </tr> <tr> <td>28°24'46.62" S</td> <td>S 26°43'32.64" E</td> </tr> <tr> <td>28°24'49.91" S</td> <td>S 26°43'31.86" E</td> </tr> <tr> <td>28°25'04.37" S</td> <td>S 26°43'39.34" E</td> </tr> <tr> <td>28°24'57.48" S</td> <td>S 26°43'53.11" E</td> </tr> </table>		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
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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

At the time of the inspection the climate was warm and dry with moderate cloud cover and a very slight breeze.

**ENVIRONMENTAL PERFORMANCE ASSESSMENT
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REPORTABLE ENVIRONMENTAL INCIDENTS

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

**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	LOW – Mitigation not needed / mitigation measures to be maintained
2	MEDIUM – Mitigation should be considered
3	HIGH – Mitigation compulsory

**ENVIRONMENTAL PERFORMANCE ASSESSMENT
LOUTERBRONNEN AGGREGATE QUARRY**

INSPECTION ASPECTS

Description	Compliance score	Non-Compliance Score	Status	Comments
LEGISLATION COMPLIANCE:				
National Environmental Management Act, 1998 (Act No 107 of 1998) and the Environmental Impact Assessment Regulations, 2014	5	1	Compliant	The EA (Ref No: FS 30/5/1/2/3/2/1/10040 EM has been issued on the 15th of May 2018.
Copy of the EA and EMPR available on site	5	1	Compliant	EMPR available on site. Copy of EA available on site.
Mineral and Petroleum Resources Development Act, 2002 (Act No 28 of 2002)	5	1	Compliant	The mining area has a valid Mining Right with Ref No: FS 30/5/1/2/2/10040MR
Mining Permit available on site	5	1	Compliant	
Mine plan annually reviewed	5	1	Compliant	As this mining right has only been issued within this year a review of the mine plan is not yet necessary.
National Environmental Management: Waste Act, 2008 (Act No 59 of 2008)	5	1	Compliant	
National Water Act, 1998 (Act 36 of 1998)	5	1	Compliant	The water, used in the existing washing plant, is extracted from a borehole on the property for which the Department of Water and Sanitation issued a General Authorisation for Section 21 (a), (e), (g) and (i) in terms of the NWA, 1998
GA Authorisation	5	1	Compliant	Available on site
National Environmental Management: Biodiversity Act, 2004 (Act No 10 of 2004) (NEM:BA)	5	1	Compliant	
Hazardous Substances Act, 1973 (Act 15 of 1973)	5	1	Compliant	

ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY

Description	Compliance score	Non-Compliance Score	Status	Comments
Mine Health and Safety Act, 1996 (Act No 29 of 1996), read together with applicable amendments and regulations thereto including relevant OHSA regulations	5	1	Compliant	
National Heritage Resources Act, 1999 (Act No 25 of 1999)	5	1	Compliant	
Mine Works Programme	5	1	Compliant	Available on site
Social Labour Plan	5	1	Compliant	Available on site
Regulation 42 Mine Plan (Updated)	1	3	In Progress	The mining contractor have appointed a land surveyor to assist in the compilation of such a Mine Plan
Copies of Financial Provision Calculation (updated) and Annual Performance Audit (EPA) present	5	1	Compliant	
Waste register and Permits for waste removal	5	1	Compliant	General waste is removed by the mine manager on a regular basis. A record keeping system is in place.
Complaints Register Present	5	1	Compliant	
Environmental Awareness training	5	1	Compliant	Site induction and environmental training have been done with the staff on the 30 th of June 2020.
ASPECTS OF THE AFFECTED ENVIRONMENT				
Topsoil: Overburden Management (EMP PG: 55, 97, 100)				
Topsoil stripping	5	1	Compliant	
Topsoil storage (heaps not exceeding 1.5 m)	5	1	Compliant	
Topsoil heaps that are stored for longer than 6 months: Naturally or artificially vegetated with, indigenous grass species.	4	3	Compliant / Action required as soon as possible	Invasive Alien Plants have started to establish on some of the heaps. The grass and shrub cover on some of the heaps, has grown dense and tall and may pose a safety issue (e.g. fire risk)
Overburden stripped & stockpiled	5	1	Compliant	
Stockpiles monitored for erosion, weeds and foreign matter	4	3	Compliant / Action required as soon as possible	Due to favourable conditions some Invasive Alien Plants (<i>Xanthium spinosum</i> , <i>Datura ferox</i> and <i>Cirsium vulgare</i>) have started to establish on some of the stockpiled heaps and should be eradicated.
Topsoil returned to rehabilitated area	NA	1	NA	No rehabilitation has occurred up to date.
Vegetation (EMP PG: 57, 100, 103)				
Protected plants (if any) sheltered from mining activities	NA	1	NA	No protected, endangered or declining species have been recorded within the mining area.

ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY

Description	Compliance score	Non-Compliance Score	Status	Comments
Removal of vegetation limited to smallest possible area	5	1	Compliant	
Aliens & weeds controlled on site	4	3	Compliant / Action required as soon as possible	Due to favourable conditions some Invasive Alien Plants (<i>Xanthium spinosum</i> , <i>Datura ferox</i> and <i>Cirsium vulgare</i>) have started to establish within the mining area. At the time of the inspection eradication of AIPs along the banks of the settling pond/slurry dam were in progress.
Fauna (EMP PG: 58, 59, 103):				
All animals, birds and reptiles protected on site.	5	1	Compliant	
Air Quality and Noise (EMP PG: 56, 98, 99):				
Dust monitoring plan implemented	5	1	Compliant	Dust monitoring on a monthly basis
Dust suppression implemented	4	3	In Progress / Monitoring of the situation	The mine has made notable progress in addressing the amount of dust pollution generated within the mining area, including wetting of access roads and stockpiled material etc. However, the mitigation of dust generated from the some of the processing/crushing plants are still in progress.
Speed on access road limited to 40 km/h	5	1	Compliant	
Dust monitoring equipment operational	5	1	Compliant	
Speed on access road limited to 40 km/h	5	1	Compliant	
Mining equipment serviced regularly to ensure noise emissions are minimized	5	1	Compliant	
Noise control	5	1	Compliant	
Blasting vibration and blast noise monitoring implemented on site	5	1	Compliant	
I&AP and stakeholders informed prior to a blast.	5	1	Compliant	
Surface and Storm Water Management (EMP PG: 57, 101):				
Storm water Management Plan implemented on site	5	1	Compliant	
Storm water diverted around the mining area and access roads to prevent erosion	5	1	Compliant	
Mining conducted in accordance with the Best Practice Guidelines for small scale mining	5	1	Compliant	
Areas with erosion reinstated	NA	1	NA	No erosion features present at current time
Visual Exposure (EMP PG: 55, 97, 55):				

ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY

Description	Compliance score	Non-Compliance Score	Status	Comments
Is the contractor implementing good visual and housekeeping standards	5	1	Compliant	There is a marked attempt at improving the visual appearance of the mine.
Height of product stockpiles determined based on the visibility of the site	5	1	Compliant	
Hazardous Chemical Management (EMP PG: 58, 102, 103):				
Hazardous material stored within a bunded area (110% capacity)	5	1	Compliant	A roof has been installed over the storage/bunded area in order to avoid rainwater from entering and filling up the storage area.
Regular vehicle management is done at the workshop	5	1	Compliant	
Drip trays present when refuelling is done outside the service bay	2	3	Compliant bordering on Non-compliant	Vehicles are refuelled without the use of drip trays.
Mining equipment mechanically sound without visible oil leaks	3	3	Compliant / Action required as soon as possible	Numerous small oil spills have been noted around the mining area is likely due to a mechanically unsound mining vehicle.
Hazardous spills cleaned up, stored and disposed of according to the acceptable procedures and methods	3	3	Compliant / Action required as soon as possible	Spill are cleaned up at a regular basis, however the rate of spillage/leakage is much higher and more frequent cleaning up activities should be undertaken.
Hazardous waste removed by a registered waste handling contractor	5	1	Compliant	All hazardous waste has been removed by a registered company (Oilkol).
Waste Management (EMP PG: 58, 102):				
Site free of day-to-day litter	5	1	Compliant	
Waste collected in sealable containers	5	1	Compliant	
General waste dumped at a recognised landfill site	5	1	Compliant	
No waste stockpile area allowed outside the boundaries of the mining area	5	1	Compliant	
Suitable covered receptacles available at all times and conveniently placed for the disposal of waste	5	1	Compliant	
Proper sanitation facilities available to employees	5	1	Compliant	
Potable Water and Ablution Facilities				
Ablution facilities available on site more than 200m from a watercourse	5	1	Compliant	

ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY

Description	Compliance score	Non-Compliance Score	Status	Comments
Potable water available on site for use of workers	5	1	Compliant	
Effluent water from the camp washing facility disposed of in a French drain, situated more than 200m from a watercourse	NA	1	NA	
Fire Management				
Firefighting equipment available on-site	5	1	Compliant	
No open fires at mining site allowed	5	1	Compliant	
Mine and Equipment Management				
Mining area demarcated with visible beacons	5	1	Compliant	
Mining conducted within approved footprint area	5	1	Compliant	
Unnecessary surface disturbance avoided	5	1	Compliant	
Access Roads, Vehicle and Transporting of Material (EMP PG: 59, 104, 105):				
Access road maintained	5	1	Compliant	
Movement of project related vehicles and machinery restricted to the approved mining area	5	1	Compliant	
All trucks weighed before leaving the site in order to prevent overloading	5	1	Compliant	
Speed limits enforced within the mining area	5	1	Compliant	
Weighbridge slips filled on-site and are available for auditing	5	1	Compliant	
Employee and Safety Management (EMP PG: 59, 104):				
Workers inducted and informed of EMP conditions	5	1	Compliant	Site induction and environmental training have been done with the staff on the 30 th of June 2020.
Workers provided with PPE	5	1	Compliant	

ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY

Description	Compliance score	Non-Compliance Score	Status	Comments
Appropriate notification signage erected at the mining site, warning the public about the hazard around the mining site and presence of heavy vehicles and machinery, as well as speed limits within the mining area.	5	1	Compliant	
Weather proof, durable, legible notices in at least three official languages applicable in the area displayed at the entrance to the site.	5	1	Compliant	
Effective access control to prevent unauthorised entry.	5	1	Compliant	
Surrounding land users informed of blasting events	5	1	Compliant	
Audible warning of a pending blast must be given at least 3 minutes in advance of the blast	5	1	Compliant	
Measures implemented to limit fly rock	5	1	Compliant	
Fly rock that falls beyond the working area collected and removed	5	1	Compliant	

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

No written response has been received from any I&AP or stakeholder during the audit period.

GENERAL REPORT

Compliance of the mining site with the EMP approved by DMR was reviewed during the site assessment. The mining area recorded a compliance score of 96.22 for the month of February 2021. Thus, there was no change in the compliance score from the previous inspection's score.

- 89.2% of tasks were executed 100% according to EMP specifications;
- 5.4% of all tasks were executed at 80% achieving rate;
- 1% of all tasks were executed at 50%;
- 1% of all tasks were executed at 20%, whilst
- 0.3% of task were not executed in accordance with the EMP specifications.

The task that was not executed in accordance with the EMP specifications is:

- **Legislation Compliance: Regulation 42 Mine Plan**
 - **Description:** The mine map/plan in accordance with Regulation 42 was not present at the time of the inspection, however a land surveyor has visited the site and the compilation of the map is process.

FURTHERMORE

- **Eight activities have been identified which require compulsory mitigation namely:**
 - Regulation 42 Mine Plan
 - *Recommended Mitigation:* The Mine Plan should be compiled as soon as possible
 - Topsoil Storage:

Some Invasive Plants have established on some of the topsoil heaps.

 - *Recommended Mitigation:* Within three weeks upon receipt of this report, a walk-through of the mining property should be conducted, wherein all affected (invaded) areas should be identified. These areas should then be cleared of these species with care taken not to allow the dispersal of seeds. The use of chemical methods is allowed and a few registered chemicals are mentioned below.

The indigenous grass and shrub layer have become quite dense and tall and potentially pose a safety risk (e.g. visibility and fire risk)

- *Recommended Mitigation:* Vegetation cutting and trimming should occur within the next two months. (March – April).

○ Stockpiled overburden:

Some Invasive Plants have established on some of these heaps.

- *Recommended Mitigation:* Within three weeks upon receipt of this report, a walk-through of the mining property should be conducted, wherein all affected (invaded) areas should be identified. These areas should then be cleared of these species with care taken not to allow the dispersal of seeds. The use of chemical methods is allowed and a few registered chemicals are mentioned below.

○ Aliens and Weeds within the mining area:

Apart from the topsoil and overburden stockpiles some IAPs have established within other areas of the mine.

- *Recommended Mitigation:* See recommended mitigations above (Topsoil Storage & Stockpiled Overburden).

○ Dust management and suppression:

The mine has made notable progress in addressing the amount of dust pollution generated within the mining area, including wetting of access roads, stockpiled material and some of the crushing plants. Wind barriers have also been installed on some of the crushing plants. However, the mine is still in the process of implementing/installing additional dust prevention measures.

- *Recommended Mitigation:* The mitigation of dust generated from the remainder of the processing/crushing plants are still in progress and should be completed as soon as possible.

○ Drip trays used when refuelling is done outside the service bay: At the time of the inspection it was noted that drip trays are not used when refuelling with some spillage occurring on bare soil during the refuelling process.

- *Recommended Mitigation:* The use of drip trays during refuelling should be mandatory.

○ Mining equipment mechanically unsound (leaking of oil):

- *Recommended Mitigation:* The culprit mining vehicles/machinery responsible for the numerous small oil spills should be identified and serviced (made sound).

○ Hazardous spills: Even though all spills recorded during the previous month's inspection have been cleaned up numerous new small oil spills have been recorded during this inspection.

- *Recommended Mitigation:* More frequent clean up inspections should be considered.

- **The remaining 70 activities (89.7%) occur sufficient enough and at acceptable levels, that:**
no additional Mitigation Measures area required and the current active Mitigation Measures should only be maintained.

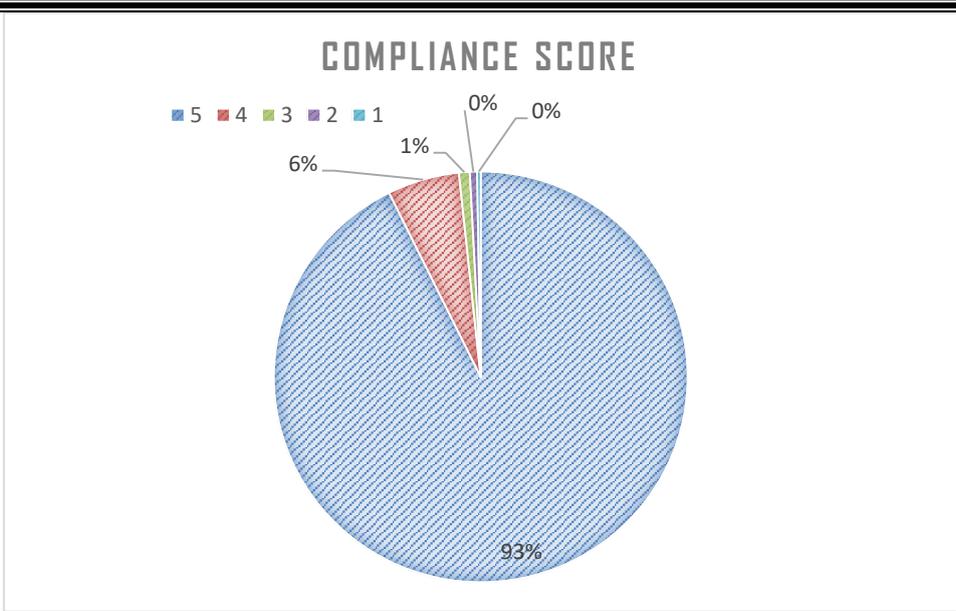


Figure 1: Compliance scores for all activities as listed within the approved Environmental Management Programme for the Louterbronnen Aggregate Quarry.

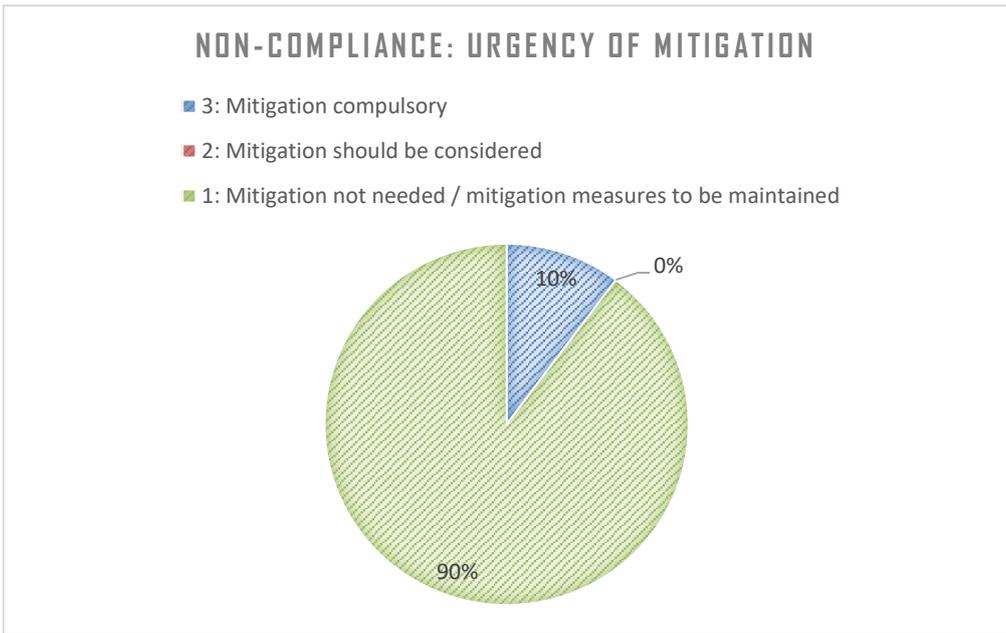


Figure 2: Degree of urgency in terms of mitigation for the listed non-compliance activities.

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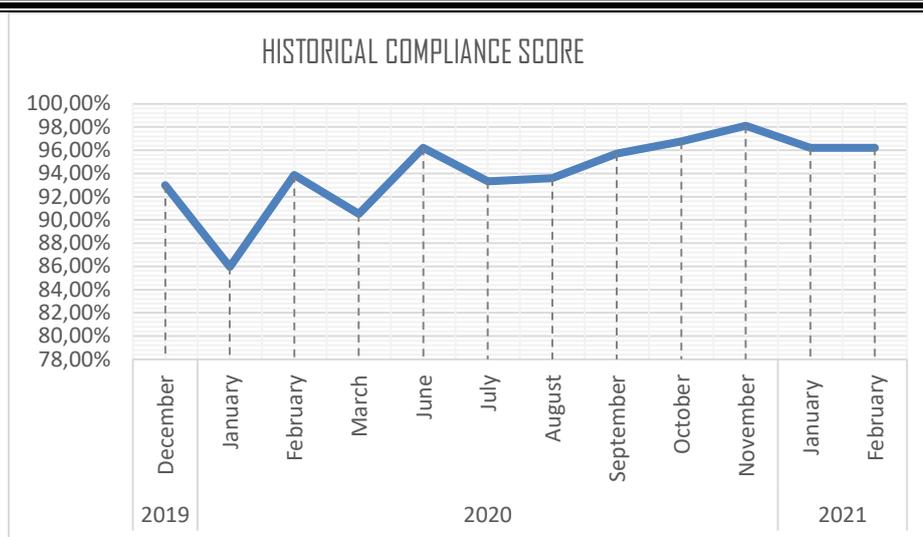


Figure 3: Historical compliance scores for the Louterbronnen Aggregate Quarry.

POSITIVE FINDINGS:

There is a marked attempt at improving the visual appearance of the mining site as well as to address the issues raised in the past through the most effective appropriate actions. Overall, the contractor was implementing relatively good visual and housekeeping standards and the effort is clearly visible.

- Clear signages are visible throughout the mining area
- Dust being monitored on a monthly basis.
- Notable progress has been made in terms of dust suppression and the mining company is still in the process of taking additional measures in order to ensure that the levels of dust is decreased.
- Hazardous waste has been removed by Oilkol and the bunded area has been cleaned up and furthermore a roof structure has been installed over the bunded area to avoid rainwater from entering the bunded storage area.
- The mining company have started with the removal/eradication of Invasive Alien Plants using mechanical methods.
- The salvage yard have been cleaned up.
- Water generated during the washing process are now recycled.
- The heritage site (grave site) have been fenced and is now protected.
- Records of General and Hazardous waste removal are kept on-site.

NEGATIVE FINDINGS (TO BE ADDRESSED):

- Mine plan to be drawn up by land surveyor.
- Small oil leaks and the responsible mining vehicle: Numerous new small oil spills have been recorded within the mining area, and are the result of an unsound mining vehicle. These oil spills should be cleaned up and

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disposed of accordingly. Furthermore, the culprit mining vehicle should be identified and serviced (made sound) as soon as possible.

- Refuelling done without the use of drip trays.
- Establishment of invasive alien plants (IAPs)

DOCUMENT CHECKLIST:

<u>RELEVANT DOCUMENTATION</u>	<u>PRESENT ON SITE</u>	<u>COMMENTS</u>
Mining right	Yes	
Mine works programme	Yes	
Social and labour plan	Yes	
Approved EMPR	Yes	
EA	Yes	
Regulation 42 Mine Plan (annually updated)	No	
Financial Provision Calculation (2020)	Yes	Electronic copy
EPA (2020)	Yes	Electronic copy
Water use licence	Yes	
Waste register and Permits for waste removal	Yes	<ul style="list-style-type: none"> • Records are kept of all hazardous waste being removed by a licenced waste removal company. • It is recommended that some sort of record keeping is put in place for the removal of general waste.
Incidents register	Yes	
Complaints register	Yes	
Proof of environmental awareness training	Yes	
MSDS's vir chemicals	Yes	
Written notice to neighbours of each blasting event	Yes	
Appointment of an on-site ECO	Yes	
Emergency Preparedness Plan	Yes	
Invasive plant species plan (part of the EIAr and EMPr – appendix J)	Yes	

MATTERS TO BE ADDRESSED:

URGENT AND HIGH PRIORITY (WITHIN 1 OR 2 DAYS UPON NOTIFICATION):

- The small oil spills identified within the mining areas should be cleaned up and stored within the appropriate manner (sealable container within the bunded area for hazardous waste) as soon as possible (before mine closer for the remainder of the year).
- The mining vehicle responsible for the oil spills should be serviced (made safe) as soon as possible.
- Drip trays to be used when refuelling.
- The washbay's sump and oil separator have reached its capacity and should be emptied.

PRIORITY (WITHIN THE NEXT MONTH FROM THE DATE OF NOTIFICATION):

- Updating of the Mine Plan / Map in accordance with Regulation 42.
- Eradication of Alien Invasive Plants (IAPs)

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

It is believed that the EMPR currently adequately manage and/or mitigate environmental impacts at the mining area.

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NEED FOR AMENDMENT OF THE EMP

No need for the amendment of the EMPR could be identified during the site assessment.

INVASIVE ALIEN PLANT MANAGEMENT RECOMMENDATIONS

GENERAL CLEARING AND GUIDING PRINCIPLES

Alien control programs are long-term management projects and should include a clearing plan which includes follow up actions for rehabilitation of the cleared area. The lighter infested areas should be cleared first to prevent the build-up of seed banks. Pre-existing dense mature stands ideally should be left for last, as they probably won't increase in density or pose a greater threat than they are currently. Collective management and planning with neighbours may be required in the case of large woody invaders as seeds of aliens are easily dispersed across boundaries by wind or water courses. All clearing actions should be monitored and documented to keep records of which areas are due for follow-up clearing.

Alien Invasive species that have been recorded within the implicated area and need to be cleared and controlled are:

- » *Prosopis glandulosa*
- » *Argeomone ochroleuca*
- » *Datura stramonium*
- » *Opuntia humifusa*
- » *Nicotiana glauca*
- » *Cirsium vulgare*
- » *Xanthium strumarium*
- » *Xanthium spinosum*

The sections below are taken from the Department of water Affairs: Working for Water Programme, whose guidelines and policies on alien plant species removal should be adhered to, also for the removal of indigenous invasives.

Additional notes or sections that is of particular relevance to the project is typed in bold.

In general, the extensive use of herbicide should be avoided as far as possible – unless used for direct stump or plant applications in areas at least 32 m from any type of drainage line or stem injections if closer to drainage lines. This is due to the potential for herbicide and related compounds to be distributed downstream areas and damaging indigenous vegetation all along the watercourses and beyond.

Any control programme for alien vegetation must include the following 3 phases:

- » Initial control: drastic reduction of existing population
- » Follow-up control: control of seedlings, root suckers, and coppice growth

- » Maintenance control: sustain low alien plant numbers with annual control

1) MECHANICAL CLEARING

This entails damaging or removing the plant by physical action. Different techniques could be used, e.g. uprooting, felling, slashing, mowing, ringbarking or bark stripping. This control option is only really feasible in sparse infestations or on small scale, and for controlling species that do not coppice after cutting. Species that tend to coppice, need to have the cut stumps or coppice growth treated with herbicides following the mechanical treatment. Mechanical control is labour intensive and therefore expensive, and could cause severe soil disturbance and erosion.

a) Felling – Adult plants and saplings

Consider as first option where possible

Where trees are to be felled and removed, the stem/trunk shall be cut as close to the ground as possible but not higher than 150mm, using chainsaws, bow saws, brush cutters or cane knives.

- » Where felling is to be followed by herbicide treatment the cut shall either be made by means of a saw, so as to produce a clean, flat and generally horizontal surface or in the case of suitably small, thin barked species, the stem shall be cut with a lopper. A slasher or kapmes should preferably not be used because of the diagonal cut that is produced. This minimises the herbicide absorption and the “sharp sticks” are a Health and Safety risk.
- » In the case of larger trees, they shall, where applicable and / or possible, be felled to fall uphill in order to reduce breakage and minimise the danger to workmen.
- » Felled material and other dead material (brush and logs) shall not be allowed to block or impede drainage lines and water courses and must be removed from all water courses, either 30 m away or out of the flood line itself.
- » **Felled material of *Prosopis glandulosa*, and *Nicotiana glauca* should be shredded or crushed and incorporated into the lower SUBSOIL layer of stockpiles to ensure all regenerative and turpentine-containing material cannot contaminate or re-invade any rehabilitated areas or the surroundings of the development**

b) Ring barking – Adult plants

- » Where ring barking is directed, the Contractor shall remove all bark (including the inner bark or phloem) from ground level to 50 cm up or such lesser distance as may be specified.
- » All bark must be removed to below ground level for good results.
- » Where clean de-barking is not possible due to crevices in the stem or where exposed roots are present, a combination of bark removal and basal stem treatments should be carried out.
- » Bush knives or hatchets should be used for debarking.

ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY

- » Herbicide can be applied to the exposed bark except.
- » **In the case of smaller trees and saplings with soft, thin skinned bark (*Prosopis* species), the stem shall be beaten with the back of a hatchet and the bark peeled off.**

c) Uprooting – Adult plants and larger saplings

For species with a bushy or herbaceous habit opposed to a single woody stem, uprooting may be an option.

- » Always aim to sever the roots at a point below any coppicing buds – thus below soil surface.
 - For *Opuntia humifusa*, and small saplings of *Nicotiana glauca*, this will mean that the shrubs need to be excavated to about 50 cm below the soil surface.
 - Cleared material must be shredded – this material may only be used as mulch on rehabilitated surfaces if no seed material was on the shrubs at the time of clearing – clearing is recommended during the winter months.
- » This can be done manually where stems have a small diameter or the soil of a suitably soft texture.
- » Larger shrubs or plants on loamy or clay-rich soils can be uprooted by a suitable ripping implement (towed behind a tractor), provided areas are re-landscaped and rehabilitated after clearing.

d) Manual clearing of seedlings and saplings

- » Where seedlings and / or saplings are relatively sparse, less than 30 cm high these shall be removed by hand pulling which shall be so carried out as to ensure the removal of the roots.
- » Hand pulled plants shall be left hanging on other vegetation or deposited in a pile to reduce the possibility of re-growth.
- » Where seedlings or saplings are dense or are too well established to be removed by hand, the seedlings or saplings shall be cut using a lopper or brush cutter and the stems can then be treated selectively with a species-specific herbicide.
 - Herbicides should be used as last resource; no herbicides that can affect other species, remain active in the environment or may be detrimental to fauna will be permitted.

e) Chemical Treatment

- » The majority of herbicides on the market for species other than broad-leaved herbaceous plants are non-selective.
- » Indiscriminate application will result in the destruction of all plants affected by the herbicide, not just the targeted plants. Due care will thus always have to be taken to ensure that where herbicides are used, these are strictly applied to the plants to be cleared only.
- » No application of herbicides shall be undertaken if a rainfall event can be expected within 12 hours of the application, or, where herbicides are applied with a spray-nozzle; such application shall not be undertaken during windy conditions
- » Only a registered pest control operator or suitably qualified contractor may apply herbicides on a commercial basis.
- » All application of herbicides shall be carried out under the supervision of a registered pest control operator.

f) Cut-stump treatment

- » Where stumps are to be treated with herbicide the herbicide shall under all circumstances be mixed with a suitable colour dye (if the product has no dye incorporated) and a wetting agent if specified on the herbicide label,
- » Suitably mixed herbicide shall be applied as soon as possible but not later than 60 minutes after felling, stripping, or frilling.
- » In the case of felled stumps all sawdust shall first be brushed off the cut surface.
- » A knapsack or handheld pressurised spray can, with a narrow angle solid cone nozzle or adjustable nozzle set to a solid spray, should be used.
- » The pressure should be as low as possible to avoid the herbicide from bouncing off the sprayed surface and to minimise contamination; attention must be paid to achieving an even coverage only on the outer rim (Cambium area).
- » For herbicides with a gel-consistency, application shall be done with a suitable paintbrush (with long handle)

g) Foliar spray

- » Where foliar spray has been specified, the spray shall be applied as to the leaves of the whole plant to the point of drip-off.
- » Spraying shall not be done when the leaves are wet or in windy conditions.
- » The herbicide shall under all circumstances be mixed with a suitable colour dye (if the product has no built in dye) and a wetting agent if specified on the herbicide label.
- » Where the same herbicide is use for different methods e.g. foliar and cut- stump, different colour dyes must be used to identify the different herbicide mix ratios.
- » Spraying shall be done using a back-pack spraying system with a solid cone nozzle which allows for consistent, thorough application of the herbicide (e.g. Spraying systems TG 0,5 (or as indicated in the herbicide policy).

PREVENTING ALIEN PLANT SEED SPREAD

Many of the alien invasive plants many plants have developed special adaptations to facilitate their spread. Many have hooks or burrs which catch readily in clothing, footwear or on machinery – especially if the latter are covered with mud or soil, so people and machinery should be checked prior to moving into clean areas.

Several measures can be taken to reduce the chances of spreading reproductive material – seeds or vegetative – from spreading:

- » Vehicle / Machinery and Footwear Hygiene
 - Ideally, a strict inspection regime should be implemented before and after all travel, especially when travelling to and from areas known to be infested with weeds.
 - Risks from alien invasives does not only arise from invasives present within the footprint area, but also from alien invasives along the verges of the major transport routes, especially invasive grasses and smaller weeds.

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SPECIES-SPECIFIC CLEARING METHODS

Various herbicides have been registered for the control of alien and indigenous invasive species. The first option though should always be manual and mechanical (felling followed by localised stump treatment) eradication of the species as, with chemical application as only as a last-resort alternative.

Chemicals do not only come at a cost, but will require proper storage, management, and handling. For operation details refer to the Working for Water Operational Standards spreadsheet provided separately, and also adhere to the specific safety standards of the particular herbicides as specified by the suppliers.

Information for each invasive alien species that can potentially be expected to become established is listed below.

		<p><i>Alternanthera pungens</i> Kunth</p> <p>Popular Names: Papierdubbeltjie Paper thorn Khaki weed</p> <p>Invasive status: An unpleasant weed in disturbed places that can easily spread and form mats of several m diameter</p> <p>Clearing methods:</p> <ul style="list-style-type: none"> » Seedlings and plants: hand pull and destroy, dig out the main root with its tuber, chemical applications available <p>Notes:</p> <ul style="list-style-type: none"> » Seeds are easily spread by shoes or vehicles 							
		TREATMENT DETAIL			APPLICATION DETAIL				PLANNING DETAIL
Size class	Treatment	Herbicide	Dosage	a.i. Litres	Mix Litres	% Mix a.i	Density	Estimated Product Litres/Ha (or kg)	if Mix volume Litres/Ha
<i>Alternanthera pungens</i>	All	Full cover (foliar) spray Apply when actively growing	Glyphosate 360 g/L	10 ml / 1L	1	100	10	Closed / Dense	NA
	All	Hand or mechanical removal	None	<ul style="list-style-type: none"> » Digging out with implement or pulling by hand. » Taproot must be removed as well to prevent regrowth 			<ul style="list-style-type: none"> » Best done before flowering » If flowering or fruiting, it is advisable to rake the soil to remove any seed material and burn all seed and plant material once removed 		

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***Argemone ochroleuca* Sweet**

Popular Names:

Witblom bloudissel, White-flowered Mexican poppy Mexican thistle

NEM:BA Category: 1b

Clearing methods:

» Seedlings and plants: hand pull and destroy, dig out the main root with its tuber, chemical applications available

Notes:

- » Suspected of causing human poisoning
- » Sap and spines cause skin irritation
- » *Argemone mexicana* (Yellow-flowered Mexican poppy) is similar, but flowers are bright yellow

TREATMENT DETAIL			APPLICATION DETAIL				PLANNING DETAIL		
Size class	Treatment	Herbicide	Dosage	a.i. Litres	Mix Litres	% Mix a.i	Density	Estimated Product Litres/Ha (or kg)	if Mix volume Litres/Ha
Mexican poppy (<i>Argemone mexicana</i> , <i>A. ochroleuca</i>)	All	Fullcover/ foliarspray Apply when actively growing	Glyphosate 360 g/L	10 ml / 1L	1	100	10	Any	NA
	All	Hand or mechanical removal	None	<ul style="list-style-type: none"> » Digging out with implement or pulling by hand. » Taproot must be removed as well to prevent regrowth 			<ul style="list-style-type: none"> » Best done before flowering » If flowering or fruiting, it is advisable to rake the soil to remove any seed material and burn all seed and plant material once removed » Take extra precautions to stop seed spread if removal is required once the plants are already seeding » May require repeated treatment due to extensive soil seed banks 		
	All	Burning	None	<ul style="list-style-type: none"> » Put all cut plant material onto one heap, allow to dry out and burn. » Alternatively, dense large stands can be burnt as soon as the plants start drying out (April-June) 			<ul style="list-style-type: none"> » Off target damage » May require repeated treatment due to extensive soil seed banks » Risk of fire escape 		

***Datura ferox* L. & *Datura stramonium* L.**



Popular Names:

Grootstinkblaar Large thorn apple

NEM:BA Category: 1b

Clearing methods:

- » Seedlings: hand pull
- » Mature:
 - Physical removal
 - Single plants and small infestations can be removed by hand pulling or hoeing. Wearing of gloves is recommended.
 - Hands should be thoroughly washed if any hand contact is made with the green plants.
 - Remove plants before fruit has formed to prevent seeding.
 - If fruit has formed the removed plant must be securely bagged for disposal.
 - Extreme care should be taken to avoid any seeds or capsules containing seeds to end up in the topsoil.
 - Material collected can either be burned; or
 - material can be deep buried (deeper than 2m).
 - Chemical removal:
 - Only registered herbicides may be used.
 - Care must be taken in using herbicides as non-target plants contacted may be harmed.
 - Carefully consult to selected products label for specific directions regarding the use of wetting agents or adjuvants.
 - There may be a number of products with the same active ingredient but with alternate formulations (concentration) registered for control of a weed e.g.: Glyphosate 360 g/L, Glyphosate 450 g/L may be registered for use on the same weed. Alternate formulations such as these will have a different application rate. ALWAYS check the label.

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- The table below provides a list of potential herbicides that can be applied.
- » Follow-up control always necessary

Notes:

- » Leaves, flowers and fruit can cause skin irritation, all parts especially seed poisonous

The table below provides a list of potential herbicides that can be applied.

1. Around agricultural buildings, commercial and industrial areas						
Stage of Growth	Herbicide (active ingredient & concentration)	Example of commercial product	Application rate of commercial product	Withholding period	Comments	
Pre or Post - emergence	Imazapyr (150 g/L) Plus glyphosate (150 g/L)	ARSENAL® Xpress	7 L/ha	DO NOT GRAZE OR CUT FOR STOCK FEED FOR 7 WEEKS	Medium volume: apply in 50 -200 L water per ha. High volume: refer to label.	
Actively growing	Glyphosate 360 g/L Glyphosate 540 g/L	Panzer 360, Weedmaster® Duo, Roundup® Biactive™ (360 g/L	Per ha 2-3 L/ha		Note: Glyphosate is a non-selective herbicide. Non-target plants sprayed or wiped may be killed. Use lower rate on weeds up to 15cm diameter. Add surfactant/wetting agent in accordance with product label. See also wiper application.	
			High vol. spray 500-700 ml per 100 L			
			Knapsack 75 -100 ml/15 L			
		Roundup® PowerMax™ (540 g/)	Per ha 1.35-2 L/ha			Note: Glyphosate is a non-selective herbicide. Non-target plants sprayed or wiped may be killed. Use lower rate on weeds up to 15cm diameter. Add surfactant/wetting agent in accordance with product label. See also wiper application.
			High vol. spray 330-480 ml per 100 L			
			Knapsack 50 -70 ml/15 L			

2. Non-cropping, bushland and shrubland

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Stage of Growth	Herbicide (active ingredient & concentration)	Example of commercial product	Application rate of commercial product	Withholding period	Comments
Actively growing to mature	Glyphosate* (360 g/L) where product has an aquatic registration	Weedmaster® Duo Roundup Biactive®	10-13 ml per L water	nil	Note: Glyphosate is a non-selective herbicide. Non-target plants sprayed or wiped may be killed. In accordance with APVMA Permit PER8949 spot spraying/knapsack. Add surfactant/ wetting agent in accordance with product label.



Cirsium vulgare

Popular Names:

Scottish thistle, spear thistle, skotse dissel

NEM:BA Category: 1b

Clearing methods:

- » Seedlings: hand pull, soil contaminated with seedling can also be raked or lightly tilling the soil
- » Saplings and coppice: hand pull
- » Mature: hand pull, no herbicides listed, destruction of plant material, especially seeds, advisable
- » Follow-up control always necessary
- » Destroy all species after removed.

ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY



***Prosopis glandulosa* and *Prosopis velutina* Wooton**

Popular Names:

P. glandulosa: Heuningprosopis, Honey mesquite
P. velutina: Fluweelprosopis, Velvet mesquite

NEM:BA Category: 1b

Clearing methods:

- » Seedlings: hand pull
- » Saplings and coppice: fell
- » Mature: fell or frill, cut stump and frill application herbicides available

Notes on all Prosopis species:

- » Leaves and leaf-litter release allelopathic compounds that inhibit the germination and growth of other seeds, thus leaves and leaf-litter must be removed prior to revegetation of cleared areas
- » Pollen causes respiratory tract irritation
- » Follow-up treatments will always be required
- » Optimum eradication times are March, April and May

TREATMENT DETAIL			APPLICATION DETAIL				PLANNING DETAIL		
Size class	Treatment	Herbicide	Dosage	a.i. Litres	Mix Litres	% Mix a.i	Density	Estimated Product Litres/Ha (or kg)	if Mix volume Litres/Ha
Seedlings	Hand pull	None							
Mature plants	Cut stump / Fill Apply as soon as possible to cut stump	clopyralid / triclopyr (-amine salt) 90 / 270 g/L SL Contront 360 SL (L7314)	450ml / 10 Litres water and 0.5% Wetter & Dye	0.4	10	4	Closed / Dense	8.00	200

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	after felling, definitely within 2 hours of felling								
		Picloram (pyridine arboxylic acid) and riclopyr (triethylamine salt) KAPUT 100 Gel	1-2 mm layer gel to cover entire exposed surface of stump, no dilution. Clean freshly cut stem of sawdust, apply with 25 mm paintbrush directly onto cut surface, and do within 10 minutes of cutting.					Consult Supplier	
		triclopyr (butoxy ethyl ester) 240 g/L EC Ranger 240 EC adjuvant incl. (L6179)	800ml / 10 Litres water and 0.1% Dye	0.8	10	8	Closed / Dense	16.00	200
		riclopyr (butoxy ethyl ester) 480 g/L EC Garlon 480 EC (L4916)	400ml / 10 Litres water and 0.5% Wetter & Dye	0.4	10	4	Closed / Dense	8.00	200
		triclopyr (-amine salt) 360 g/L SL Lumberjack 360 SL (L7295), Timbrel 360 SL (L4917)	500ml / 10 Litres Water and 2% Wetter & Dye	0.5	10	5	Closed / Dense	10.00	200



Xanthium spinosum

Xanthium spinosum* and *Xanthium strumarium

Popular Names:

X. strumarium: Kankerroos, Large Cocklebur

X. spinosum: Spiny Cocklebur, burweed, dagger cocklebur, thorny burweed, Bathurst bush, boetebossie

NEM:BA Category: 1b

Clearing methods:

- » Seedlings: hand pull, soil contaminated with seedling can also be raked or lightly tilling the soil
- » Saplings and coppice: hand pull
- » Mature: hand pull, no herbicides listed, destruction of plant material, especially seeds, advisable
- » Follow-up control always necessary
- » Destroy all species after removed.
- » The following chemicals have been registered for the control of spiny cocklebur:

ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY



Xanthium strumarium

- Amitrole/simazine
- Bromoxynil
- Metribuzin
- MCPA-K
- 2,4-D(T)
- 2.4-D(A)

Opuntia humifusa



Opuntia ficus-indica (L.) Mill. and *Opuntia stricta*

Popular Names:

O. ficus-indica: Boereturksvy, Sweet prickly pear, cactus pear

O. stricta: devil's-tongue, Eastern prickly pear or Indian fig,

NEM:BA Category: 1b

Clearing methods:

- » All size classes: fell and heap felled material onto a surface where it will dry out without having an opportunity to root
- » Dried material can be burnt where the use of fire will not pose a threat
- » Chemical applications available

Notes:

- » Poisonous: Cladodes, in quantity, when fed to ruminants. Spines and glochids cause skin irritation

TREATMENT DETAIL			APPLICATION DETAIL				PLANNING DETAIL		
Size class	Treatment	Herbicide	Dosage	a.i. Litres	Mix Litres	% Mix a.i	Density	Estimated Product Litres/Ha (or kg)	if Mix volume Litres/Ha
Cactus - Sweet prickly pear (<i>Opuntia ficus-indica</i> ,	All	Direct inject	glyphosate (ammonium) 680 g/kg WG <i>RoundupMax680WG (L6790)</i>	1,800gr / 10 Literswaterand 0.1% Dye	1.8	10	18	Closed / Dense	32.40
			glyphosate (isopropylamine) 360 g/L SL <i>Glyph 360SL(L4767), Mamba 360 SL(L4817),</i>	3,300ml / 10 Litres waterand 0.1% Dye	3.3	10	33	Closed / Dense	59.40

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<i>O. robusta, O. stricta, O. spinulifera</i>			<i>Roundup360SL(L407), Springbok360SL(L6719)</i>						
			glyphosate (isopropylamine) 450 g/L SL <i>RoundUp Turbo 450 SL (L7166)</i>	1,800ml / 10 Liters waterand 0.1% Dye	1.8	10	18	Closed / Dense	32.40
			glyphosate (potassium) 500g/LSL <i>Touchdown ForteHitech500</i> <i>SLadjuvant</i> <i>incl.(L7305)</i>	2,200ml / 10 Litres waterand 0.1% Dye	2.2	10	22	Closed / Dense	39.60
			MSMA720g/LSL <i>MSMA 720 SL(L7279)</i>	1,000ml / 2 Litres water	1	2	50.000	Closed / Dense	90.00
	Small	Full cover spray	MSMA720g/LSL <i>MSMA 720 SL(L7279)</i>	1,000ml / 20 Litres water	1	20	5	Closed / Dense	250.00
			triclopyr (butoxy ethyl ester) 240 g/L EC <i>Ranger 240</i> EC <i>adjuvant incl. (L6179)</i>	200ml / 10 Liters waterand 0.1% Dye	0.2	10	2	Closed / Dense	100.00
			triclopyr (butoxy ethyl ester) 480 g/L EC <i>Garlon 480</i> EC (L4916)	100ml / 10 Liters waterand 0.5% Wetter & Dye	0.1	10	1	Closed / Dense	50.00
	All	Mechanical removal	None	Mulching,diggingoutwithimplementor machinery. Deep burial > 1m	Can be used at any time of the year,inany weather conditions Plant is reduced to pulp and will not regenerate Pulp may be used as mulch Ensure no plant parts are left behindorlost during transport				
			None	Complete removal and destruction of plant by hi-speed treechipper					
	All	Burning	None	Place wood, straw or other combustible plant material around base of plant and burn. Alternatively, put all cut plant material onto one heap, allow to dry out and burn	Off target damage May require repeated treatment Riskoffire escape			All	

FINANCIAL PROVISION

The last quantum calculation compiled for the Louterbronnen Quarry was in June 2020 and the financial provision amount came to R592 994.58. The 2020 financial provision did not exceed the value of the bank guarantee in place with the DMR, and therefore the right holder was not required to provide a shortfall. The financial provision calculation was submitted to DMR.

ECO SIGNATURE

NAME:	SIGNATURE:	DATE:
Gerhard Botha		13 March 2021

PHOTOGRAPHS: GENERAL APPEARANCE AND PROGRESS

SCREENING AND CRUSHING PLANT



ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY



Example of Oil Spill



Example of Oil Spill



Example of Oil Spill



Example of Oil Spill

WASTE STORAGE



**ENVIRONMENTAL PERFORMANCE ASSESSMENT
LOUTERBRONNEN AGGREGATE QUARRY**

SERVICING, MAINTENANCE AND WASHBAY AREA



Washbay

FUEL STORAGE AND REFUELLING AREA



THE QUARRY



ENVIRONMENTAL PERFORMANCE ASSESSMENT LOUTERBRONNEN AGGREGATE QUARRY



Stockpiled topsoil with numerous IAPs, mainly *Xanthium spinosum*



Datura stramonium, growing on one of the stockpiled soil heaps

IDENTIFIED HERATIGE SITE (GRAVE SITE)



SETTLING POND



Note the establishment of the IAP, *Datura stramonium* along the margins of the settling pond.



Eradication of *Datura stramonium* in progress.

**ENVIRONMENTAL INDUCTION AND AWARENESS TRAINING
ATTENDANCE REGISTER**



ENVIRONMENTAL INDUCTION MEETING

Louterbronnen Quarry
BlazeCore

Attendance register for the environmental induction meeting conducted on the 30th of June 2020

NAME	SIGNATURE
WALTER SEMPE	
CHANCE MAKHUMISO	171 Calcuttwa
DAVID DIPHAE	
Lucas Mchitheka	sluy
John Diphae	Diphae
SAM KADU	SPKADU
Seleasa J. Kannes	
thatholo Christopher	
ANDRIES GEORGE	
MCHITHEKA SHEPPERD	MS
Paulof od Wale	
Ernest PANA/INA	Er
Motsamat Paulose	Pauli
MAKABA ISAAC	

the goal isn't to live forever, it is to protect a planet that will

**ENVIRONMENTAL PERFORMANCE ASSESSMENT
LOUTERBRONNEN AGGREGATE QUARRY**



NAME	SIGNATURE
Tshepo mampane	Tshepo
MAHLOMOLA DIPHOKO	ZACHARIA
Adam Likalame	
Tshepo mampane	Tshepo
Dlungamandla Isaac	

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GENERAL WASTE REMOVAL REGISTER

Weight Slip Out

Blazecor Crusher
Reg no. 2020/021670/07
Vat no. 4730289818

Louterbronnen
Theunissen

(M) 0834556640 (F) 0867628559 (C) 0605692796 (E) quarry@stonecrushers.co.za

Transaction No 35257

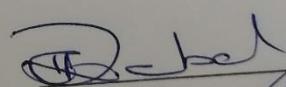
Reg No MLJSESE

Date Time In 17/02/2021 08:18:51

Date Time Out 17/02/2021 08:58:19

Client MONO STONE
Driver ANDRIES
Product VULLES
Del AMANDA
Operator
Order
Note

First Mass	3480	Kg
Second Mass	3020	Kg
Net Mass	460	Kg


Operator: Admin


Drivers Signature

ENVIRONMENTAL PERFORMANCE ASSESSMENT
LOUTERBRONNEN AGGREGATE QUARRY

HAZARDOUS WASTE REMOVAL

T 30642

WASTE TRANSPORTER



OILKOL (PTY) LTD
Reg. No. 1966/000425/07
VAT REG No. 4710101074

Head Office
P.O. Box 1126
Krugersdorp
1740

SAWIS REG No. **G P T - 0 0 - 8 2 5**

Emergency:
Tel: (086) 110 1961

Collections:
Tel: (086) 110 1961

Account Enquiries:
Tel: (011) 761 5720
Fax: (011) 762 4830
E-Mail: info@oilkol.co.za




ISO 14001:2015
Electronic Ref No.

Collector Code	30054	Truck Code	393	Delivery Note	310196	Date	250221
PRODUCT	SDS Reference No	Quantity of Waste by Volume (Litres) or Weight (Kg)		Unit Price (Cents)		VALUE (VAT inclusive @ 15% if VAT registered)	
Used Lubricating Oil	OATS1	1600				Rands Cents	
Less WIS %	%						
TOTAL	OATS1						
Used Engine Antifreeze	CATS1						

DECLARATION:
Oilkol (Pty) Ltd declares that it received the waste as completed and classified by the generator so identified on this manifest.

ME:	H	H	M	M
(19:30)	1	2	3	0



WASTE TRANSPORTER

Print Name: Stephen

WASTE TRANSPORTER

Signature: [Signature]

T 30642

WASTE GENERATOR

SAWIS REG No.

COLLECTED FROM: Blazelaar / Bruchers

GENERATORS ADDRESS: 28 Padgiefse Straat, Theunissen.

POSTAL CODE: 9410

CONTACT PERSON: Peter Croucamp

TEL No: 0614987878

E-MAIL ADDRESS:

GENERATOR ACCOUNT No. W 3995

POSTAL AND PAYMENT ADDRESS:

POSTAL CODE:

VAT REGISTERED (✓ appropriate block) YES NO

If YES Insert VAT Reg. No.:

TEL No. FAX No.

DECLARATION:
I hereby declare that the content of this load is as described under PRODUCT and in the relevant Safety Data Sheet. I certify that I have made every effort to ensure that the product is not contaminated with any other substances that would render it harmful to handle, transport or dangerous to the environment. The PRODUCT is in all respects in proper condition for transportation in accordance with the applicable laws and regulations. I have sold the above-mentioned goods and the details furnished herein are true and correct.

WASTE GENERATOR

Print Name: Peter

WASTE GENERATOR

Signature: [Signature]

WASTE MANAGER

EXOL OIL REFINERY (PTY) LTD
33 ADCOCK STREET CHAMIDOR
P.O. Box 1126 Krugersdorp 1740
Tel: (086) 100 3965
Fax: (011) 769 2257
E-mail: exol@exol.co.za

SAWIS REG No. **G P R - 0 0 - 9 2 5**

SABS
ISO 14001

DECLARATION:
Exol Oil Refinery declares and certifies that it received the waste as completed and classified by the generator so identified on this manifest.

Discrepancies	SG	WIS%
Transporter Delivery Note No.		
Licence No.	12/9/11/P61	
Type of Waste Management Applied	R4	

WASTE MANAGER

Print Name:

Signature:

www.usedoil.co.za

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