

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF  
TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN  
(KM1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN  
AREA**

**CONTRACT NO: C918**

**FINAL PERFORMANCE ASSESSMENT REPORT**

**(REGULATION 55)**

**&**

**ENVIRONMENTAL RISK REPORT**

**(REGULATION 60)**

**&**

**CLOSURE PLAN**

**(REGULATION 62)**



<b>DEPARTMENTAL REFERENCE NUMBER:</b>	<b>WC30512321(105)BP</b>
<b>REPORT DATE:</b>	<b>21 May 2020</b>

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

**Prepared For:**

WCPA: Department of Transport and  
Public Works; Roads Infrastructure  
Branch (Authorisation holder)  
Contact person: Mr L Truter  
PO Box 2603  
Cape Town  
8000

**On behalf of:**

Roadmac Surfacing Cape (Pty) Ltd (the  
contractor)  
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**Prepared By:**

Greenmined Environmental  
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ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE  
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**ABBREVIATIONS**

BP	Borrow Pit
DMRE	Department of Mineral Resources and Energy
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
ECO	Environmental Control Officer
EMP	Environmental Management Programme
I&AP's	Interested and Affected Parties
MPRDA	Minerals and Petroleum Resources Development Act, 2002

# **BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

## **Executive summary**

Roadmac Surfacing Cape (Pty) Ltd (the contractor) has appointed Greenmined Environmental (Pty) Ltd (GM) to attend to the closure application of the associated borrow pits, developed for the abovementioned upgrade and maintenance of Trunk Road between Oudtshoorn and De Rust, in the Western Cape Province. The borrow pits to form part of this closure application is as follows: TR3303/7.2/0.75L, TR3303/13.9/0.2R and TR3303/19.8/0.4R, which closure will be conducted in terms of the Mineral and Petroleum Resources Development Act, 2002 (as amended) and the National Environmental Management Act, 1998 (as amended), keeping in mind the provisions contained in the approved Environmental Management Program done by CCA Environmental (Pty) Ltd dated 2014 (hereafter referred to as EMP).

The three borrow pits are in the Oudtshoorn vicinity at the following locations:

1. Borrow pit (BP) 1, also referred to as TR3303/7.2/0.75L, is situated to the north of TR33/3 approximately 7 km east of Oudtshoorn on Portion 6 of Farm Stolsvlakte 140. This BP was previously disturbed and as it was not used by the contractor on this project, rehabilitation (as per the approved EMP) was completed after the initial inspection and proof thereof is included in this report.
2. BP 2, also referred to as TR3303/13.2/0.03L, is situated to the north of TR33/3 approximately 13 km east of Oudtshoorn on Portions 49 and 119 of Farm Vanwykskraal 117 Fully rehabilitated.
3. BP 3, also referred to as TR3303/19.8/0.4R, is situated to the south of TR33/3 at Dysseldorp on Erf 975, known as Bluepoint/Dysseldorp commonage - Fully rehabilitated.

## **Way forward**

The rehabilitation activities outstanding in the previous report dated 21 March 2020 has been addressed by the contractor and results thereof is included in this document for consideration, upon which the Minister's delegated authority, the Regional Manager, is required to decide as to whether the closure certificate is to be granted.

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**1. PROJECT SPECIFIC DETAIL**

ITEM	AUTHORISATION HOLDER
<b>Company Name</b>	WCPA: Department of Transport and Public Works; Roads Infrastructure Branch
<b>Contact Person</b>	Mr L Truter
<b>Tel Number</b>	021 483 2020
<b>Postal Address</b>	PO Box 2603  Cape Town 8000
ITEM	CLIENT DETAIL
<b>Company Name</b>	ROADMAC SURFACING CAPE
<b>Contact Person</b>	Quinton Maurice
<b>Tel Number</b>	027 219 1787
<b>Cell Number</b>	073 249 5220
<b>E-mail Address</b>	<a href="mailto:quinton@road-mac.co.za">quinton@road-mac.co.za</a>
<b>Postal Address</b>	P.O. Box 1339 Brackenfell 7561
ITEM	CONSULTANT DETAIL
<b>Company Name</b>	Greenmined Environmental
<b>Contact Person</b>	Sonette Smit
<b>Tel Number</b>	021 851 2673
<b>Cell Number</b>	084 5855706
<b>E-mail Address</b>	<a href="mailto:Sonette.s@greenmined.co.za">Sonette.s@greenmined.co.za</a>

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<b>Postal Address</b>	Postnet Suite 62 Private Bag x15 Somerset West 7129
<b>ITEM</b>	<b>LOCATION AND AREA INFORMATION – BORROW PIT 1 (BP1)</b> <b>TR3303/7.2/0.75L</b>
<b>Site Name</b>	BORROW PIT BP1 – TR3303/7.2/0.75L
<b>Property Description</b>	Portion 6 of the Farm Stolsvlakte 140
<b>Location</b>	BP 1 is an extension of an existing borrow pit located on Portion 6 of the Farm Stolsvlakte 140, in the Oudtshoorn Local Municipality, which forms part of the Garden Route District Municipality in the Western Cape Province. It is situated approximately 750 m north of TR33/3 and 7 km east of Oudtshoorn.
<b>Land owner</b>	Hannes Terblanché Boerdery Trust
<b>Contact person</b>	Mr JH Terblanché
<b>Address:</b>	PO Box 448, Oudtshoorn 6620
<b>Telephone:</b>	044 272 0442 / 082 451 7207
<b>Title deed information:</b>	T2344/2014
<b>Size of the property:</b>	114.169 (ha)
<b>Size of Mining Area</b>	The total area expropriated is 4.77 ha, while the mined borrow area was approximately 2.04 ha in extent, with an overall average excavation depth of 2.3 m.
<b>ITEM</b>	<b>LOCATION AND AREA INFORMATION – BORROW PIT BP2 –</b> <b>TR3303/13.2/0.03L</b>
<b>Site Name</b>	BORROW PIT BP2 – TR3303/13.2/0.03L
<b>Property Description</b>	Portions 49 and 119 of Farm Vanwykskraal 117

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<b>Location</b>	BP 2 is on Portions 49 and 119 of the Farm Vanwykskraal 117 in the Oudtshoorn Local Municipality, which forms part of the Garden Route District Municipality in the Western Cape Province. It is situated approximately 13 km east of Oudtshoorn between TR33 and the parallel running railway line on a medium level alluvial terrace
<b>Land owner</b>	Hannes Terblanché Boerdery Trust
<b>Contact person</b>	Mr JH Terblanché
<b>Address:</b>	PO Box 448, Oudtshoorn. 6620
<b>Telephone:</b>	044 272 0442 / 0824517207
<b>Title deed information:</b>	T2344/2014
<b>Size of the property:</b>	37.632 ha and 11.863 ha
<b>Size of Mining Area</b>	The total area expropriated is 1.999 ha, while the mined area was approximately 1.6 ha in extent, with an overall average excavation depth of 2.5 m.
<b>ITEM</b>	<b>LOCATION AND AREA INFORMATION – BORROW PIT BP3 – TR3303/19.8/0.4R</b>
<b>Site Name</b>	BORROWPIT BP3 – TR3303/19.8/0.4R
<b>Property Description</b>	Erf 975, Dysseldorp, known as Bluepoint/Dysseldorp commonage
<b>Land owner</b>	Garden Route District Municipality
<b>Contact person</b>	Municipal Manager
<b>Address</b>	15 Regent Street, Oudtshoorn, South Africa, 6620
<b>Telephone</b>	044 272 2241
<b>Title deed information</b>	T22671/1983
<b>Size of the property</b>	81.693 Ha



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<b>Location</b>	BP 3 is an extension of an existing borrow pit located on Erf 975, Dysselfdorp in the Oudtshoorn Local Municipality, which forms part of the Garden Route District Municipality in the Western Cape Province. The site forms part of an erf also known as Bluepoint or the Dysselfdorp commonage that belongs to the Garden Route District Municipality. It is situated approximately 2.5 km north-west of Dysselfdorp and 20 km north-east of Oudtshoorn, with TR33 running approximately 400 m to the north.
<b>Size of Mining Area</b>	The total area expropriated is 6.09 ha, while the mined borrow area were approximately 2.42 ha in extent, with an overall average excavation depth of 2.6 m.

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**2. FINAL PERFORMANCE ASSESSMENT REPORT**

{Regulation 55(9)}

**PROJECT DETAIL**

<b>Site Names / Reference Numbers:</b>	<ul style="list-style-type: none"> <li>✦ BORROW PIT BP1 – TR3303/7.2/0.75L</li> <li>✦ BORROW PIT BP2 – TR3303/13.2/0.03L</li> <li>✦ BORROWPIT BP3 – TR3303/19.8/0.4R</li> </ul>	<b>Date of Commencement:</b>	August 2018
		<b>Inspection Date:</b>	19 March 2020
<b>Authorisation Holder:</b>	WCPA: Department of Transport and Public Works; Roads Infrastructure Branch	<b>Report Number:</b>	Closure Report – Revision 1
<b>Environmental Control Officer:</b>	Sonette Smit	<b>Other Authorisations:</b>	N/A

**DETAIL OF AUDITOR**

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

<b>ECO:</b>	Sonette Smit
<b>EXPERTISE:</b>	Mrs. S Smit has fourteen years of experience in environmental legal compliance audits, (GIS) geographic information system, mining right and permit applications and applications for environmental authorisations & Water use applications.
<b>DECLARATION OF INDEPENDENCE:</b>	<p>I, Sonette Smit, 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> </ul>

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	<ul style="list-style-type: none"><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, 2017.</li></ul> <p align="center"></p> <p align="center">Sonette Smit <span style="float: right;">Date: 21 May 2020</span></p>
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**SCOPE & PURPOSE OF ENVIRONMENTAL AUDIT**

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

This final performance assessment report/environmental audit report was compiled in terms of the requirements of the NEMA EIA Regulations, 2014 (as amended 2017).

**OBJECTIVE:**

The objective of this report is to evaluate compliance of the mining activities with the Environmental Management Plan (EMP) as approved by the Department of Mineral Resources.

**INSPECTED AREAS:**

The mining areas were inspected on 19 March 2020 by Greenmined Environmental (Pty) Ltd. The mining areas where found to be 98% compliant.

The mining activities ceased and two of the borrow pits were rehabilitated, a suitably experienced Landscaping Contractor/Horticulturist who is familiar with the local vegetation was appointed to revegetate the borrow pits - to commence 23<sup>rd</sup> of March 2020. Proof will be sent submitted to DMRE (Western Cape) once completed.

Borrow pits 2 and 3 are free draining, were rehabilitated and storm water management implemented.

Borrow pit 1 – Storm water management is being addressed and proof hereof will be submitted to DMRE (Western Cape) once completed. As per the EMP dated 2014 this is an existing excavation, and located

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in a dry, low rainfall area with a low risk of extended runoff accumulating in the proposed excavation. The natural topography of the area is gently sloping, which could assist with drainage to some extent. The borrow pit floor consist of an artificial wetland, therefore free-draining of this pit is not recommended. It is proposed that berms diverting storm water should be implemented in order to control erosion. This will minimise disturbance of the natural vegetation and wetland ecosystem.

The rehabilitation of Borrow pit 1 was completed after the initial inspection and proof thereof included in this report.

**ASSUMPTIONS, UNCERTAINTIES OR GAPS IN KNOWLEDGE**

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

The assumptions made in this document stem from the findings of the environmental audit as well as background information gathered from the authorisation holder. The approved Environmental Management Plan dated 2014 by CCA Environmental (Pty) Ltd were used as baseline information for this document. No uncertainties or gaps in knowledge could be identified that is applicable during this audit period.

**LOCATION**

**Borrow Pit 1**

**Location:**

BP 1 is an extension of an existing borrow pit located on Portion 6 of the Farm Stolsvlakte 140, in the Oudtshoorn Local Municipality, which forms part of the Garden Route District Municipality in the Western Cape Province. It is situated approximately 750 m north of TR33/3 and 7 km east of Oudtshoorn.

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**Borrow Pit 1 Map:**



**Borrow pit co-ordinates (System LO 23):**

Point	X	Y
a	+3 717 900 +66 912	+66 912
b	+3 717 812 +66 110	+66 110
c	+3 717 637 +66 025	+66 025
d	+3 717 698 +66 813	+66 813
e	+3 717 906 +66 900	+66 900
f	+3 717 902 +66 908	+66 908

**Borrow Pit 2 Location:**

BP 2 is located on Portions 49 and 119 of the Farm Vanwykskraal 117 in the Oudtshoorn Local Municipality, which forms part of the Garden Route District Municipality in the Western Cape Province. It is situated approximately 13 km east of Oudtshoorn between TR33 and the parallel running railway line on a medium level alluvial terrace.

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**Borrow Pit 2 Map:**



**Borrow pit  
co-ordinates  
(System LO 23):**

Point	X	Y
a	+3 716 275	+60 528
b	+3 716 380	+60 722
c	+3 716 289	+60 722
d	+3 716 288	+60 715
e	+3 716 230	+60 566
f	+3 716 154	+60 404
g	+3 716 199	+60 386
h	+3 716 272	+60 521

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<p><b>Borrow Pit 3</b> <b>Location:</b></p>	<p>BP 3 is an extension of an existing borrow pit located on Erf 975, Dysselfdorp in the Oudtshoorn Local Municipality, which forms part of the Garden Route District Municipality in the Western Cape Province. The site forms part of an erf also known as Blueprint or the Dysselfdorp commonage that belongs to the Garden Route District Municipality. It is situated approximately 2.5 km north-west of Dysselfdorp and 20 km north-east of Oudtshoorn, with TR33 running approximately 400 m to the north.</p>		
<p><b>Borrow Pit 3 Map:</b></p>			
<p><b>Borrow Pit 3</b> <b>Coordinates:</b></p>	<p><b>Point</b></p>	<p><b>X</b></p>	<p><b>Y</b></p>
	<p><b>a</b></p>	<p>+3 715 480</p>	<p>+55 208</p>
	<p><b>b</b></p>	<p>+3 715 488</p>	<p>+55 122</p>
	<p><b>c</b></p>	<p>+3 715 663</p>	<p>+55 124</p>
	<p><b>d</b></p>	<p>+3 715 662</p>	<p>+55 449</p>
	<p><b>e</b></p>	<p>+3 715 464</p>	<p>+55 447</p>

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	f	+3 715 480	+55 211
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**PROJECT DESCRIPTION**

WCPA: Department of Transport and Public Works; Roads Infrastructure Branch holds a mining authorisation for gravel over the above mentioned borrow pits (BP). The mining authorisation was granted on 17 December 2015.

Borrow pit (BP) 1, also referred to as TR3303/7.2/0.75L, is situated to the north of TR33/3 approximately 7 km east of Oudtshoorn on Portion 6 of Farm Stolsvlakte 140. This BP was previously disturbed and as it was not used by the contractor on this project, it was not yet fully rehabilitated (as per the approved EMP). Final rehabilitation will be completed and proof thereof will be submitted to DMRE once finalised.

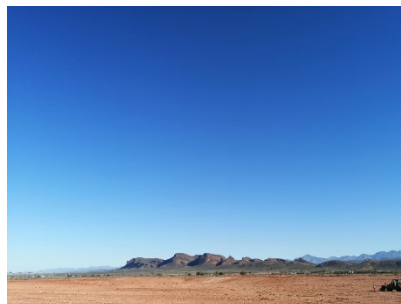
The rehabilitation of Borrow pit 1 was completed after the site inspection and proof thereof is included in this report.

BP 2, also referred to as TR3303/13.2/0.03L, is situated to the north of TR33/3 approximately 13 km east of Oudtshoorn on Portions 49 and 119 of Farm Vanwykskraal 117 Fully rehabilitated.

BP 3, also referred to as TR3303/19.8/0.4R, is situated to the south of TR33/3 at Dysseldorp on Erf 975, known as Bluepoint/Dysseldorp commonage - Fully rehabilitated.

**SITE CONDITIONS**

The weather conditions during the inspection were sunny and warm no wind.





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**REPORTABLE ENVIRONMENTAL INCIDENTS**

<b>Incident Date:</b>	None to report.
<b>Incident No:</b>	
<b>Incident:</b>	
<b>How addressed:</b>	
<b>When addressed:</b>	

**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

**INSPECTION ASPECTS**

<b>DESCRIPTION</b>	<b>COMPLIANCE SCORE</b>	<b>NON-COMPLIANCE SCORE</b>	<b>STATUS</b>	<b>COMMENTS</b>
<b>MINING AUTHORISATION CONDITIONS</b>				
<b>APPLICABLE LEGISLATION COMPLIANCE</b>				
Mineral and Petroleum Resources	5	-	Compliant	Mining Authorisation was received on 17 December 2015 and remains

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DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Development Act, 2002 (Act No 28 of 2002)				valid until closure has been received.
Copy of the authorisation and EMP available on site	5	-	Compliant	No mining is taking place, but the authorisation holder has copies of the authorisation and EMP at their offices.
<p>The holder must comply with Regulation 55(3). According to aforesaid regulation, the holder of a mining authorisation must conduct a performance assessment and submit a performance (progress) assessment report of the Environmental Management Programme and must contain, amongst others, the following:</p> <ul style="list-style-type: none"> <li>• A surveyed map indicating areas mined; areas still to be mined; areas rehabilitated and areas still to be rehabilitated.</li> </ul>	TBC		Compliant	The performance assessments were the responsibility of the authorisation holder to be submitted to DMRE on an annual basis during the mining period.

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DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
<ul style="list-style-type: none"> <li>• The surveyed map must also indicate the mine phases and a topsoil removal and replacement schedule for future mining activities.</li> <li>• The depth of the layer of soil replaced on top of the under-laying rock/shale.</li> <li>• No go areas,</li> <li>• Gradient of the slope,</li> <li>• A description of the vegetation cover,</li> <li>• Report to be submitted to the Regional Manager on an annual basis.</li> </ul>				
National Water Act, (Act No 36 of 1998)	N/A	-	-	
Copy of water use authorisation available on site	N/A	-	-	
National Environmental Management Act,	N/A	-	-	Mining Authorisation was received on 17 December 2015 and remains

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DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
1998 (Act No 107 of 1998) and the Environmental Impact Assessment Regulations, 2014 (as amended 2017)				valid until closure has been received..
Copy of the EA and EMP available on site	5	-	-	
National Environmental Management: Air Quality Act, 2004 (Act No 39 of 2004)	N/A	-	-	The activity did not trigger the NEM:AQA, 2004.
Mine Health and Safety Act, 1996 (Act No. 29 of 1996)	N/A	-	-	No longer applicable as all mining activities ceased.
National Environmental Management: Waste Act, 2008 (Act No 59 of 2008)	N/A	-	-	The activity did not trigger the NEM:WA, 2008.
National Environmental Management: Biodiversity Act, 2004 (Act No 10 of 2004) (NEM:BA)	N/A	-	-	The activity did not trigger the NEM:BA, 2004.
<b>TOPSOIL</b>				
Topsoil stripping: 30cm of topsoil or top-material for all borrow pits to be stripped	5	-	Compliant	The mining activities ceased and two of the borrow pits were rehabilitated, therefore this aspect is fully compliant

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DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
before mining commences for replacement during rehabilitation.				
The upper 30cm of topsoil must be kept entirely separate from the underlying overburden, during stripping, stockpiling and re-spreading.	5	-	Compliant	
Mining floor must be ripped to loosen it to a depth of 30 cm before top soil is spread during rehabilitation	5	-	Compliant	
A cover crop must be planted and established immediately after spreading of top soil, to stabilise the topsoil and protect it from erosion	5		Compliant	
<b>VEGETATION</b>				
Protected plants sheltered from mining activities	5	-	Compliant	Mining took place within the approved footprint area, without

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DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Riparian vegetation protected	5	-	Compliant	disturbing protected plants or riparian vegetation.
Aliens & weeds controlled on site: Ongoing alien plant eradication must take place in the mining area and within the borrow pits expropriated site.	N/A	-	-	No aliens or invader plant species established as a result of the mining activities.
<b>HYDROLOGY</b>				
Protection of the drainage channel as per the freshwater ecological assessment by Blue Science (May 2014)	5	-	Compliant	A minimum distance of 60 meters on borrow pit TR3303/7.20/L/750/A were retained as a buffer between the borrow pit area and the drainage channel as per the freshwater ecological assessment by Blue Science (May 2014)
Mining activities on borrow pit TR3303/13.9/0.2/R to remain 32m away from the Olifants River tributaries	5	-	Compliant	The mining activities did not impact the Olifants River tributaries, and took place 32m away from it.
<b>FAUNA</b>				
All animals, birds and reptiles protected on site. All snares destroyed	5	-	Compliant	No animals were found or reported harmed as a result of the mining activities.
<b>AIR QUALITY AND NOISE</b>				
Dust suppression implemented	N/A	-	-	Currently all mining activities has ceased and these matters no longer apply.
Noise control	N/A	-	-	

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Mining equipment serviced regularly to ensure noise emissions are minimized.	5	-	Compliant	
<b>ARCHAEOLOGICAL AND CULTURAL INTEREST</b>				
Archaeological and/or cultural remnants protected	N/A	-	-	The mining activities did not encounter archaeological and/or cultural remnants of significance.
<b>SURFACE- AND GROUNDWATER</b>				
Storm water management infrastructure must be constructed up slope of the borrow pits to prevent storm water from entering the borrow pits	5	-	Compliant	Borrow pits 2 and 3 were rehabilitated and storm water management implemented. Borrow pit 1 – Storm water management was completed after the site inspection and proof thereof is included in this report.
The pits must be rendered free draining and care must be taken not to concentrate runoff into the borrow pits	5		Compliant	Borrow pits 2 and 3 are free draining. Borrow pit 1 –As per the EMP dated 2014 this is an existing excavation, and located in a dry, low rainfall area with a low risk of extended runoff accumulating in the proposed excavation. The natural topography of the area is gently sloping, which could assist with drainage to some extent. The borrow pit floor consist of an artificial wetland, therefore free-draining of this pit is not recommended. It was proposed that berms diverting storm water should

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
				be implemented in order to control erosion. This will minimise disturbance of the natural vegetation and wetland ecosystem. This was addressed by the contractor after the site inspection, proof hereof is included in this report.
<b>VISUAL EXPOSURE</b>				
Is the contractor implementing good visual and housekeeping standards?	5	-	Compliant	Borrow pits 2&3 were rehabilitated, storm water management and sloping still to be done at Borrow pit 1 will only improve the visual standards of the site. Sloping at Borrow pit 1 was completed after the site inspection and proof thereof is included in this report
<b>MINING ACTIVITIES:</b>				
<b>SAFETY AND SECURITY</b>				
Mining area must be completely fenced off from the general public for safety and access to site must be controlled. The borrow pit sites must remain fenced off until the rehabilitation process is complete. The areas must not	5	-	Compliant	Borrow pits 2 and 3 were rehabilitated and fenced. Borrow pit 1 – The fence erected on the perimeter of the borrow pit has been stolen, this is a reoccurring matter, as the area is sloped and will not pose a risk to general public, the boundary fence of the farm will suffice. No livestock are found in this footprint area and will be kept out by the farm owner.



**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
be grazed until such time as the area is stabilised.				
<b>REHABILITATION</b>				
After mining, the steep slopes at the upper ends of the excavation must not be steeper than 1:3	5		Compliant	Borrow pits 2 and 3 were rehabilitated as per the approved EMP – dated 2014. Borrow pit 1 – some slopes were steeper than 1:3. This was addressed after the site inspection and proof thereof is included in this report.

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

<b>MANAGEMENT OF FUEL AND HAZARDOUS PRODUCTS</b>				
Spillages should be contained immediately and not allowed to enter any drainage lines or watercourses	N/A	-	-	No spillages were noted at the time of the inspection.
Spillages should be cleaned up, with all contaminated soil collected and removed from the site and disposed of at a licensed hazardous waste site	N/A	-	-	
Overall management of fuel and oil spills	N/A	-	-	
Drip trays present when refuelling is done outside the service bay.	N/A	-	-	
Storage of bulk fuels and oils should be done appropriately.	N/A	-	-	
Service areas (storage, loading and handling of fuels) should be maintained according to the EMP.	N/A	-	-	
<b>WASTE MANAGEMENT</b>				
Site free of day-to-day litter	5	-	Compliant	The contractor removed all waste from site when the mining activities ceased in March 2020.
Waste to be generated on site during mining must	5		Compliant	

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

be managed in accordance to the Environmental Management Programme and must comply with the National Environmental Management: Waste Act, 2008 (Act 59 of 2008)				
All rubble in and /or within the borrow pits expropriated area must be removed and dumped at an approved landfill site authorised to receive such waste. Control measures must be put in place to control illegal dumping until closure.	5		Compliant	
<b>POTABLE WATER AND ABLUTION FACILITIES</b>				
Ablution facilities available on site more than 200m from a watercourse	N/A	-	-	No longer applicable as mining activities ceased.
Potable water available on site for use of workers	N/A	-	-	
Sewerage disposed of by a registered waste collector	N/A	-	-	

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

<b>FIRE MANAGEMENT</b>				
Firefighting equipment available on-site	N/A	-	-	No longer applicable as mining activities ceased.
No open fires allowed at mining site	N/A	-	-	
<b>ACCESS ROADS, VEHICLES AND TRANSPORTING OF MATERIAL</b>				
Access road maintained	N/A	-	-	No longer applicable as mining activities ceased.
All vehicles transporting fuels and oils must be roadworthy and suitable for the safe transport of the goods in question	N/A	-	-	
<b>EMPLOYEE AND SAFETY MANAGEMENT</b>				
Workers inducted and informed of EMP conditions	N/A	-	-	No longer applicable as mining has ceased.
No camping allowed on the mining area	N/A	-	-	
Workers provided with PPE	N/A	-	-	
Are there signs present, indicating the mining site and speed restrictions	N/A	-	-	
Site fenced off to control access	N/A	-	-	

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

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

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

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

**AUDITING OF EMP AND REPORTING THEREOF**

*(REGULATION 34)*

<b>Date of previous EAR/EPA:</b>	Unknown – These reports were done by the authorisation holder.
<b>Proof of submission to DMRE available:</b>	Unknown – These reports were done by the authorisation holder.
<b>EAR/EPA compiled by independent person with environmental auditing expertise:</b>	Unknown – These reports were done by the authorisation holder.
<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 proof was available that the I&AP's were notified of submission of Environmental Performance Assessment.

**GENERAL REPORT**

Compliance of the mining activities with the EMP, approved by DMRE, was reviewed during this final audit. The mining operation recorded a compliance score of 100%.

As mentioned previously the two borrow pits that were used on Portions 49 and 119 of Farm Vanwykskraal 117, and at Dysseldorp on Erf 975, known as Bluepoint/Dysseldorp commonage were reinstated by Roadmac Surfacing Pty (Ltd). No mining took place on Portion 6 of Farm Stolsvlakte

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK  
ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE  
RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**


140 and the contractor therefore did not rehabilitate BP 1 at the time of the site inspection. The outstanding matters identified in during the site inspection were addressed and proof thereof is included in this report.

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

**MATTERS TO BE ADDRESSED DURING SITE INSPECTION:**

- A cover crop must be planted and established immediately after spreading of top soil, to stabilise the topsoil and protect it from erosion a suitably experienced Landscaping Contractor/Horticulturist who is familiar with the local vegetation was appoint to revegetate the borrow pits - to commence 23<sup>rd</sup> of March 2020.
  - This matter was addressed and proof thereof is submitted to this report.
- Borrow pit 1 – some slopes are steeper than 1:3.
  - This matter was addressed and proof thereof is submitted to this report.
- Borrow pit 1 –As per the EMP dated 2014 this is an existing excavation, and located in a dry, low rainfall area with a low risk of extended runoff accumulating in the proposed excavation. The natural topography of the area is gently sloping, which could assist with drainage to some extent. The borrow pit floor consist of an artificial wetland, therefore free-draining of this pit is not recommended. It is proposed that berms diverting storm water should be implemented in order to control erosion. This will minimise disturbance of the natural vegetation and wetland ecosystem.
  - This matter was addressed and proof thereof is submitted to this report.
- Borrow pit 1 shows signs of erosion, resulting directly from the previous mining activities were noted. Storm water control and sloping of 1:3 should be implemented.
  - This matter was addressed and proof thereof is submitted to this report.

**ASSESSOR**

NAME:	SIGNATURE:	DATE:
Sonette Smit		22/05/2020

**PHOTOGRAPHS**

**EROSION ON SITE DURING INITIAL SITE INSPECTION**



**GENERAL VIEW OF BORROW PIT 1 AFTER REHABILITATION HAS BEEN COMPLETED**





**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

**GENERAL VIEW OF THE SITE – BORROW PIT BP 2, ALSO REFERRED TO AS TR3303/13.2/0.03L**



**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**



**GENERAL VIEW OF THE SITE – BORROW PIT BP 3, ALSO REFERRED TO AS TR3303/19.8/0.4R**



### 3. ENVIRONMENTAL RISK REPORT

{Regulation 60}

<b>Site Names / Reference Numbers:</b>	<ul style="list-style-type: none"> <li>✦ BORROW PIT BP1 – TR3303/7.2/0.75L</li> <li>✦ BORROW PIT BP2 – TR3303/13.2/0.03L</li> <li>✦ BORROWPIT BP3 – TR3303/19.8/0.4R</li> </ul>	<b>Date of Commencement:</b>	August 2018
		<b>Inspection Date:</b>	19 March 2020
<b>Authorisation Holder:</b>	WCPA: Department of Transport and Public Works; Roads Infrastructure Branch	<b>Report Number:</b>	Closure Report – Revision 1
<b>Environmental Control Officer:</b>	Sonette Smit	<b>Other Authorisations:</b>	N/A

**1 REGULATION 60 (a): A undertaking of a screening level environmental risk assessment where – all possible environmental risks are identified, including those which to be insignificant;**

#### 1.1 Criteria of assigning significance to possible risks

**Methodology for the assessment of the potential environmental, social and cultural impacts**

#### DEFINITIONS AND CONCEPTS:

##### Environmental significance:

The concept of significance is at the core of impact identification, evaluation and decision-making. The concept remains largely undefined and there is no international consensus on a single definition. The following common elements are recognised from the various interpretations:

- ♣ Environmental significance is a value judgement
- ♣ The degree of environmental significance depends on the nature of the risk
- ♣ The importance is rated in terms of both biophysical and socio-economic values
- ♣ Determining significance involves the amount of change to the environment perceived to be acceptable to affected communities.

# **BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

Significance can be differentiated into risk magnitude and risk significance. Risk magnitude is the measurable change (i.e. intensity, duration and likelihood). Risk significance is the value placed on the change by different affected parties (i.e. level of acceptability)

The concept of risk has two dimensions, namely the consequence of an event or set of circumstances, and the likelihood of particular consequences being realised (Environment Australia (1999) Environmental Risk Management).

## **Impact**

The positive or negative effects on human well-being and / or the environment.

## **Consequence**

The intermediate or final outcome of an event or situation OR it is the result, on the environment, of an event.

## **Likelihood**

A qualitative term covering both probability and frequency.

## **Frequency**

The number of occurrences of a defined event in a given time or rate.

## **Probability**

The likelihood of a specific outcome measured by the ratio of a specific outcome to the total number of possible outcomes.

## **Environment**

Surroundings in which an organisation operates, including air, water, land, natural resources, flora, fauna, humans and their interrelation (ISO 14004, 1996).

## **Methodology that will be used**

The environmental significance assessment methodology is based on the following determination:

$$\text{Environmental Significance} = \text{Overall Consequence} \times \text{Overall Likelihood}$$

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

**Determination of Overall Consequence**

Consequence analysis is a mixture of quantitative and qualitative information and the outcome can be positive or negative. Several factors can be used to determine consequence. For the purpose of determining the environmental significance in terms of consequence, the following factors were chosen: **Severity/Intensity, Duration and Extent/Spatial Scale**. Each factor is assigned a rating of 1 to 5, as described in the tables below.

***Determination of Severity / Intensity***

**Severity** relates to the nature of the event, aspect or impact to the environment and describes how severe the aspects impact on the biophysical and socio-economic environment.

Table 1 will be used to obtain an overall rating for severity, taking into consideration the various criteria.

**Rating of Severity:**

Type of criteria	Rating				
	1	2	3	4	5
Quantitative	0-20%	21-40%	41-60%	61-80%	81-100%
Qualitative	Insignificant / Non-harmful	Small / Potentially harmful	Significant/ Harmful	Great/ Very harmful	Disastrous Extremely harmful
Social/ Community response	Acceptable / I&AP satisfied	Slightly tolerable / Possible objections	Intolerable/ Sporadic complaints	Unacceptable / Widespread complaints	Totally unacceptable / Possible legal action
Irreversibility	Very low cost to mitigate/ High potential to mitigate impacts	Low cost to mitigate	Substantial cost to mitigate/	High cost to mitigate	Prohibitive cost to mitigate/

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	to level of insignificance/  Easily reversible		Potential to mitigate impacts/  Potential to reverse impact		Little or no mechanism to mitigate impact  Irreversible
Biophysical  (Air quality, water quantity and quality, waste production, fauna and flora)	Insignificant change / deterioration or disturbance	Moderate change / deterioration or disturbance	Significant change / deterioration or disturbance	Very significant change / deterioration or disturbance	Disastrous change / deterioration or disturbance

***Determination of Duration***

Duration refers to the amount of time that the environment will be affected by the event, risk or impact, if no intervention e.g. remedial action takes place.

**Rating of Duration:**

Rating	Description
1	Up to ONE MONTH
2	ONE MONTH to THREE MONTHS (QUARTER)
3	THREE MONTHS to ONE YEAR
4	ONE to TEN YEARS
5	Beyond TEN YEARS

***Determination of Extent/Spatial Scale***

Extent or spatial scale is the area affected by the event, aspect or impact.

**Rating of Extent / Spatial Scale:**

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

Rating	Description
1	Immediate, fully contained area
2	Surrounding area
3	Within Business Unit area of responsibility
4	Within the farm/neighbouring farm area
5	Regional, National, International

***Determination of Overall Consequence***

Overall consequence is determined by adding the factors determined above and summarized below, and then dividing the sum by 3.

**Example of calculating Overall Consequence**

Consequence	Rating
Severity	Example 4
Duration	Example 2
Extent	Example 4
<b>SUBTOTAL</b>	<b>10</b>
<b>TOTAL CONSEQUENCE:</b> (Subtotal divided by 3)	<b>3.3</b>

**Determination of Likelihood:**

The determination of likelihood is a combination of Frequency and Probability. Each factor is assigned a rating of 1 to 5, as described below and in tables 6 and 7.

***Determination of Frequency***

Frequency refers to how often the specific activity, related to the event, aspect or impact, is undertaken.

**Rating of Frequency:**

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

Rating	Description
1	Once a year or once/more during operation
2	Once/more in 6 Months
3	Once/more a Month
4	Once/more a Week
5	Daily

***Determination of Probability***

Probability refers to how often the activity or aspect has an impact on the environment.

**Rating of Probability**

Rating	Description
1	Almost never / almost impossible
2	Very seldom / highly unlikely
3	Infrequent / unlikely / seldom
4	Often / regularly / likely / possible
5	Daily / highly likely / definitely



**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

**Overall Likelihood**

Overall likelihood is calculated by adding the factors determined above and summarised below, and then dividing the sum by 2.

**Example of calculating Overall Likelihood**

Consequence	Rating
Frequency	Example 4
Probability	Example 2
<b>SUBTOTAL</b>	<b>6</b>
<b>TOTAL LIKELIHOOD</b> (Subtotal divided by 2)	<b>3</b>

**Determination of Overall Environmental Significance:**

The multiplication of overall consequence with overall likelihood will provide the significance of the risk, which is a number that will then fall into a range of **INSIGNIFICANT RISK**, **UNCERTAIN RISK** or **SIGNIFICANT RISK**, as shown in the table below.

**Determination of Overall Environmental Significance**

Significance or Risk	Insignificant risk (cc)	Uncertain risk (bb)	Potential significant risk (aa)
Overall Consequence X Overall Likelihood	1 - 4.9	5 - 9.9	10 – 19.9

**Qualitative description or magnitude of Environmental Significance**

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

This description is qualitative and is an indication of the nature or magnitude of the Environmental Significance. It also guides the prioritisations and decision making process associated with this event, aspect or impact.

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

**Description of Environmental Significance and related action required**

Significance	An insignificant risk (cc)	A uncertain risk (bb)	A potential significant risk (aa)
Impact Magnitude	Impact is of very low order and therefore likely to have very little real effect.  Acceptable.	Impact is of low order and therefore likely to have little real effect.  Acceptable.	Impact is real and substantial in relation to other impacts. Pose a risk to the company.  Unacceptable
Action Required	Maintain current management measures.  Where possible improve.	Maintain current management measures.  Implement monitoring and evaluate to determine potential increase in risk.  Where possible improve	Improve management measures to reduce risk.

Based on the above, the significance rating scale has been determined as follows:

A potential Risk (aa) Risks of a substantial order. Mitigation and / or remedial activity would be feasible but difficult, expensive, time-consuming or some combination of these.

An uncertain risk (bb) Risk would be negligible. Almost no mitigation and or remedial activity would be needed, and any minor steps, which might be needed, would be easy, cheap and simple.

An insignificant risk (cc) There would be very small to no risk.

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

1.2 Environmental risk assessment of each main activity in the decommissioning/rehabilitation phase after implementation of the mitigation measures.

**Sloping and Landscaping:**

Soil erosion

Rating: **Insignificant risk**

			Consequence			Likelihood	Significance
Severity	Duration	Extend		Probability	Frequency		
3	1	1	1.7	3	2	2.5	<b>4.3</b>

Health and safety risk posed by un-sloped areas

Rating: **Insignificant risk**

			Consequence			Likelihood	Significance
Severity	Duration	Extend		Probability	Frequency		
3	5	1	3	2	1	1.5	<b>4.5</b>

Dust nuisance caused during landscaping activities

Rating: **Insignificant risk**

			Consequence			Likelihood	Significance
Severity	Duration	Extend		Probability	Frequency		
1	2	1	1.3	2	3	2.5	<b>3.3</b>

Noise nuisance caused by machinery

Rating: **Insignificant risk**

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			Consequence			Likelihood	Significance
Severity	Duration	Extend		Probability	Frequency		
1	3	1	1.6	2	2	2	<b>3.2</b>

Contamination of area with hydrocarbons or hazardous waste materials

Rating: **Insignificant risk**

			Consequence			Likelihood	Significance
Severity	Duration	Extend		Probability	Frequency		
3	1	1	1.6	2	1	1.5	<b>2.4</b>

Infestation of the area by weeds and invader plants

Rating: **Insignificant risk**

			Consequence			Likelihood	Significance
Severity	Duration	Extend		Probability	Frequency		
2	4	1	2.3	2	1	1.5	<b>2.4</b>

**2 REGULATION 60 (b, c): The undertaking of a second level risk assessment on issues classified as potential significant risks.**

No issues / impacts classified as potential significant risks were identified at the rehabilitated mining area.

**3 REGULATION 60 (d) Re-evaluation and re-classification of uncertain risks**

No issues / impacts classified as uncertain risks were identified at the rehabilitated mining area.

**4 REGULATION 60 (e) Documenting the Status of Insignificant Risks**

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

<b>RISK</b>	<b>SIGNIFICANCE</b>	<b>STATUS</b>
Soil erosion	Insignificant	Definite
Health and safety risk posed by un-sloped	Insignificant	Definite
Dust nuisance caused during landscaping activities	Insignificant	Definite
Noise nuisance caused by machinery	Insignificant	Definite
Contamination of area with hydrocarbons or hazardous waste materials	Insignificant	Definite
Infestation of the area by weeds and invader plants	Insignificant	Definite

**5 REGULATION 60 (f) Identifying alternative risk prevention or management strategies for potential significant risks**

No issues / impacts classified as potential significant risks were identified at the mining area.

**6 REGULATION 60 (g) – Agreeing on management measures to be implemented for the potential significant risks**

No issues / impacts classified as potential significant risks were identified at the mining area.

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

**4. CLOSURE PLAN**

{Regulation 62}

<b>Site Names / Reference Numbers:</b>	<ul style="list-style-type: none"> <li>✦ BORROW PIT BP1 – TR3303/7.2/0.75L</li> <li>✦ BORROW PIT BP2 – TR3303/13.2/0.03L</li> <li>✦ BORROWPIT BP3 – TR3303/19.8/0.4R</li> </ul>	<b>Date of Commencement:</b>	August 2018
		<b>Inspection Date:</b>	19 March 2020
<b>Authorisation Holder:</b>	WCPA: Department of Transport and Public Works; Roads Infrastructure Branch	<b>Report Number:</b>	Closure Report – Revision 1
<b>Environmental Control Officer:</b>	Sonette Smit	<b>Other Authorisations:</b>	N/A

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

**LOCATION**

<p><b>Borrow Pit 1 Location:</b></p>	<p>BP 1 is an extension of an existing borrow pit located on Portion 6 of the Farm Stolsvlakte 140, in the Oudtshoorn Local Municipality, which forms part of the Garden Route District Municipality in the Western Cape Province. It is situated approximately 750 m north of TR33/3 and 7 km east of Oudtshoorn.</p>		
<p><b>Borrow pit co-ordinates (System LO 23):</b></p>	<p align="center"><b>Point</b></p>	<p align="center"><b>X</b></p>	<p align="center"><b>Y</b></p>
	<p align="center"><b>a</b></p>	<p align="center">+3 717 900 +66 912</p>	<p align="center">+66 912</p>
	<p align="center"><b>b</b></p>	<p align="center">+3 717 812 +66 110</p>	<p align="center">+66 110</p>
	<p align="center"><b>c</b></p>	<p align="center">+3 717 637 +66 025</p>	<p align="center">+66 025</p>
	<p align="center"><b>d</b></p>	<p align="center">+3 717 698 +66 813</p>	<p align="center">+66 813</p>
	<p align="center"><b>e</b></p>	<p align="center">+3 717 906 +66 900</p>	<p align="center">+66 900</p>
	<p align="center"><b>f</b></p>	<p align="center">+3 717 902 +66 908</p>	<p align="center">+66 908</p>



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<p><b>Borrow Pit 2</b> <b>Location:</b></p>	<p>BP 2 is located on Portions 49 and 119 of the Farm Vanwykskraal 117 in the Oudtshoorn Local Municipality, which forms part of the Garden Route District Municipality in the Western Cape Province. It is situated approximately 13 km east of Oudtshoorn between TR33 and the parallel running railway line on a medium level alluvial terrace.</p>		
<p><b>Borrow pit</b> <b>co-ordinates</b> <b>(System LO 23):</b></p>	<p align="center"><b>Point</b></p>	<p align="center"><b>X</b></p>	<p align="center"><b>Y</b></p>
	<p align="center"><b>a</b></p>	<p align="center">+3 716 275</p>	<p align="center">+60 528</p>
	<p align="center"><b>b</b></p>	<p align="center">+3 716 380</p>	<p align="center">+60 722</p>
	<p align="center"><b>c</b></p>	<p align="center">+3 716 289</p>	<p align="center">+60 722</p>
	<p align="center"><b>d</b></p>	<p align="center">+3 716 288</p>	<p align="center">+60 715</p>
	<p align="center"><b>e</b></p>	<p align="center">+3 716 230</p>	<p align="center">+60 566</p>
	<p align="center"><b>f</b></p>	<p align="center">+3 716 154</p>	<p align="center">+60 404</p>
	<p align="center"><b>g</b></p>	<p align="center">+3 716 199</p>	<p align="center">+60 386</p>
	<p align="center"><b>h</b></p>	<p align="center">+3 716 272</p>	<p align="center">+60 521</p>

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<p><b>Borrow Pit 3</b> <b>Location:</b></p>	<p>BP 3 is an extension of an existing borrow pit located on Erf 975, Dysselfdorp in the Oudtshoorn Local Municipality, which forms part of the Garden Route District Municipality in the Western Cape Province. The site forms part of an erf also known as Bluepoint or the Dysselfdorp commonage that belongs to the Garden Route District Municipality. It is situated approximately 2.5 km north-west of Dysselfdorp and 20 km north-east of Oudtshoorn, with TR33 running approximately 400 m to the north.</p>		
<p><b>Borrow Pit 3</b> <b>Coordinates:</b></p>	<p><b>Point</b></p>	<p><b>X</b></p>	<p><b>Y</b></p>
	<p><b>a</b></p>	<p>+3 715 480</p>	<p>+55 208</p>
	<p><b>b</b></p>	<p>+3 715 488</p>	<p>+55 122</p>
	<p><b>c</b></p>	<p>+3 715 663</p>	<p>+55 124</p>
	<p><b>d</b></p>	<p>+3 715 662</p>	<p>+55 449</p>
	<p><b>e</b></p>	<p>+3 715 464</p>	<p>+55 447</p>
	<p><b>f</b></p>	<p>+3 715 480</p>	<p>+55 211</p>

**1 REGULATION 62 (a - k): Closure and environmental objectives**

**1.1 Description of the closure objectives and their extent of alignment to the mining environment**

The approved EMP (2014) Prepared by: CCA Environmental (Pty) Ltd On behalf of Aurecon SA (Pty) Ltd for Government of the Western Cape: Department of Transport and Public Works states that the aim of the rehabilitation program is to restore and return the site as close possible to its original state i.e. similar to the state before mining activities commenced.

The following rehabilitation mitigation measures were proposed in the EMP:

- A cover crop must be planted and established immediately after spreading of top soil, to stabilise the topsoil and protect it from erosion;

## **BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

- Storm water management infrastructure must be constructed up slope of the borrow pits to prevent storm water from entering the borrow pits;
- The pits must be rendered free draining and care must be taken not to concentrate runoff into the borrow pits;
- The borrow pit sites must remain fenced off until the rehabilitation process is complete. The areas must not be grazed until such time as the area is stabilised;
- After mining, the steep slopes at the upper ends of the excavation must not be steeper than 1:3;

The EMP further stipulates the following closure objectives:

### **General Rehabilitation Principles:**

- No residue deposits shall be left at borrow pit sites. Stockpiled overburden shall be used to re-shape the site to blend in with the surrounding environment and topsoil will be spread over the site.

### **Closure and Rehabilitation:**

- The Contractor shall grade the slopes at the bridge construction site and the borrow pits to blend in with the natural slope of the surrounding area. All slope changes shall be finished-off so that flowing curves that blend into the surrounding landscape are formed in preference to sharp angles.
- The surface of the borrow pit and access roads shall be ripped to a depth of at least 30 cm. All overburden material shall be levelled and reshaped so as to correspond with the surrounding landscape. Topsoil (which includes mulched vegetation material removed during vegetation clearing, but excluding invasive species),
- removed and stockpiled during operation, shall be spread evenly over the disturbed areas to a depth of at least 10 cm.
- Precautions should be taken to prevent soil erosion during rehabilitation. Erosion control measures (e.g. application of straw mulches or soil binders to exposed soil) shall be put in place in all rehabilitated areas,
- including access roads, stockpiles and any other disturbed areas associated with the construction and borrow pit operations. If necessary, wind protection measures such as shade cloth screens shall be erected to protect the soil and vegetation.

## **1.2 Closure plan**

The requested closure plan is attached as Appendix 1.

# **BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

## **1.3 Summary of regulatory requirements and conditions for closure**

According to the closure process (Regulations 56 to 62) the following regulatory requirements and conditions needs to be addressed by the mining authorisation holder:

### **Layout Plan:**

- A final layout plan must be submitted at closure of the mining area or when final rehabilitation is completed.

### **Demarcating the mining area:**

- The beacons, indicating the layout of the site, must be removed at the end of the operations.

### **Responsibility:**

- The environment affected by the mining operations shall be rehabilitated by the holder, as far as is practicable, to its natural state or to a predetermined and agreed to standard or land use which conforms with the concept of sustainable development. The affected environment shall be maintained in a stable condition that will not be detrimental to the safety and health of humans and animals and that will not pollute the environment or lead to the degradation thereof.
- If operations are to be conducted in an area that has already been disturbed, the holder must reach specific agreement with the Regional Manager concerning the responsibilities imposed upon himself/herself pertaining to the rehabilitation of the area and the pollution control measures to be implemented.

### **Rehabilitation of access roads:**

- Whenever a mining authorisation is suspended, cancelled or abandoned or if it lapses and the holder does not wish to renew the authorisation, any access road or portions thereof, constructed by the holder and which will no longer be required by the landowner/tenant, shall be removed and/or rehabilitated to the satisfaction of the Regional Manager.
- Any gate or fence erected by the holder which is not required by the landowner/tenant, shall be removed and the situation restored to the pre mining situation.
- Roads shall be ripped or ploughed, and if necessary, appropriately fertilised (based on a soil analysis) to ensure the regrowth of vegetation. Imported road construction materials which may hamper regrowth of vegetation must be removed and disposed of in an approved manner prior to rehabilitation.

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- If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious effects on the soil arising from the mining operation, be corrected and the area be seeded with a seed mix to the Regional Manager's specification.

**Final rehabilitation:**

- All infrastructure, equipment, plant, temporary housing and other items used during the mining period will be removed from the site (section 44 of the MPRDA)
- Waste material of any description, including receptacles, scrap, rubble and tyres, will be removed entirely from the mining area and disposed of at a recognised landfill facility. It will not be permitted to be buried or burned on the site.
- Final rehabilitation shall be completed within a period specified by the Regional Manager.

**1.4 Summary of the results of the environmental risk report**

The potential risks as listed in the table below were assessed in the environmental risk report. If the mitigation measures proposed in that report is implemented on site all the risks are deemed to be insignificant.

<b>RISK</b>	<b>SIGNIFICANCE</b>	<b>STATUS</b>
Soil erosion	Insignificant	Definite
Health and safety risk posed by un-sloped	Insignificant	Definite
Dust nuisance caused during landscaping activities	Insignificant	Definite
Noise nuisance caused by machinery	Insignificant	Definite
Contamination of area with hydrocarbons or hazardous waste materials	Insignificant	Definite
Infestation of the area by weeds and invader plants	Insignificant	Definite

# **BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

## **1.5 Results of progressive rehabilitation**

Due to the nature of the mining activities, no progressive rehabilitation took place during the operational phase.

## **1.6 Description of the methods to decommission each mining component**

Borrow pits 2 and 3 were rehabilitated and storm water management and as well as free drainage implemented.

Borrow pit 1 – Storm water management has been addressed after the initial site visit and proof hereof is included in this report.

### **Rehabilitation Principles:**

- The removal of all structures, waste material and contaminated soil.
  - *All infrastructure, equipment and waste was removed from site.*
- After mining, the steep slopes at the upper ends of the excavation must not be steeper than 1:3.
  - *Borrow pits 2 and 3 were rehabilitated as per the approved EMP – dated 2014.*
  - *Borrow pit 1 – some slopes are steeper than 1:3. This will be addressed and, proof hereof will be submitted to DMRE (Western Cape) once completed.*
- The pits must be rendered free draining and care must be taken not to concentrate runoff into the borrow pits
  - *Borrow pits 2 and 3 are free draining.*
  - *Borrow pit 1 –As per the EMP dated 2014 this is an existing excavation, and located in a dry, low rainfall area with a low risk of extended runoff accumulating in the proposed excavation. The natural topography of the area is gently sloping, which could assist with drainage to some extent. The borrow pit floor consist of an artificial wetland, therefore free-draining of this pit is not recommended. It is proposed that berms diverting storm water should be implemented in order to control erosion. This will minimise disturbance of the natural vegetation and wetland ecosystem*
- The success of re-generated areas, including any areas prone to erosion is monitored.
  - *Borrow pit 1 shows signs of erosion, resulting directly from the previous mining activities were noted. Storm water control and sloping of 1:3 will be implemented and proof thereof send to DMRE (Western Cape) once completed.*

## **1.7 Long-term management and maintenance expected**

## **BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

The mining area has been monitored since 2018 by the authorisation holder. Borrow pit sites require ongoing maintenance and monitoring until formal closure is obtained in compliance with the MPRDA..

### **1.8 Financial provision for monitoring, maintenance and post closure management**

According to Section D5 of the approved EMP done by, financial provision (Regulation 54) is the amount that is necessary for the rehabilitation of damage caused by the operation, both at sudden closure during the normal operation of the project and at final, planned closure. This amount reflects how much it will cost the Department to rehabilitate the area disturbed in case of liquidation or ascendance.

The contract included a retention of 10% of the Contract Value (up to a limit of R1 million) which will be withheld until all work (inclusive of rehabilitation work set out in the EMP) has been completed to the satisfaction of the engineering team and DMRE. Specific financial provision for rehabilitation were included in the tender documentation for the project. A breakdown of the anticipated costs of rehabilitation per borrow pit will be compiled and submitted to DMRE for approval. As part of an agreement between DT&PW, DMRE and National Treasury, DT&PW will make provision of the financial guarantee for the rehabilitation costs to DMRE prior to any construction activities.

### **1.9 Sketch plan describing the final and future land use proposal**


The mining areas is shown in the mining plan attached as Appendix 1.

### **1.10 Record of interested and affected persons consulted**

The signed landowner indemnity forms will be submitted to DMRE once received. No other written comments with regard to the rehabilitation of the mining area was received from the surrounding I&AP's.

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK  
ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE  
RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

**SIGNATURE OF AUTHOR**

<b>NAME</b>	<b>SIGNATURE</b>	<b>DATE</b>
Sonette Smit		20 May 2020



**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK  
ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE  
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**APPENDIX 1**

**MINING PLAN PLAN**

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK  
ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE  
RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

**APPENDIX 2**

**LANDOWNER INDEMNITY'S FORMS**

**BORROWPIT DEVELOPMENT FOR THE REHABILITATION OF TRUNK  
ROAD 33 SECTION 3 BETWEEN OUDTSHOORN (KM 1.9) AND DE  
RUST (KM 35.4) IN THE OUDTSHOORN AREA - CONTRACT NO: C918**

**APPENDIX 3**

**EXPERTISE OF EAP**