MINING OF SAND AND GRAVEL FROM A PORTION OF THE FARM DOORNKRAAL 832, MALMESBURY, WESTERN CAPE PROVINCE

ENVIRONMENTAL AUDIT REPORT

DMR REFERENCE NUMBER:	WC 30/5/1/2/2/10096 MR	
AUDIT PERIOD:	26 February 2021	

PREPARED FOR: PREPARED BY:

Purple Rain Properties No 411 (Pty) Limited

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PROJECT DETAIL:

Permit Number:	WC 30/5/1/2/2/10096 MR	Date of Commencement:	14 February 2018
Site Name:	Purple Rain	Inspection Date:	26 February 2021
Permit Holder:	Purple Rain Properties No 411 Pty Ltd	operties No 411 Pty Ltd Other	
Report Number:	3	Authorisations:	Pretoria

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

ECO:	Murchellin Saal
Expertise:	Mrs. MD Saal has 9 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.
Declaration of Independence:	 I Murchellin Saal declare that – 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 (as amended 2017).



<u>SCOPE & PURPOSE OF ENVIRONMENTAL AUDIT</u> (APPENDIX 7 SUB-REGULATION 3(C)):

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

OBJECTIVE:

The objective of the environmental performance assessment (EPA) is to evaluate compliance of the operational activities with the Environmental Management Programme Report (EMPR) and Environmental Authorisation as approved by the Department of Mineral Resources.

INSPECTED AREAS:

The inspection included an assessment of the mining right footprint area.

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.



LOCATION:

Site Location:	The location is situated on a 115.43 ha area on the Farm Doornkraal No 832, Malmesbury, Swartland DC, Western Cape Province Approximately +/-11km south of Malmesbury.				
	A 33°33'10.140"S	18°45'11.950"E			
	B 33°33'13.329"S	18°45'20.605"E			
	C 33°33'36.500"S				
	E 33°34'02.986"S 18°45'17.731"E				
Site	F 33°33'34.202"S 18°45'06.759"E				
Coordinates:	G 33°33'36.693"S 18°44'58.384"E				
	H 33°33'35.265"S	18°44'57.780"E			
	I 33°33'35.294"S	18°44'56.817"E			
	J 33°33'35.962"S				
	L 33°33'24.349"S				
	M 33°33'14.143"S	18°44'35.475"E			

PROJECT DESCRIPTION:

Purple Rain Properties (Pty) Ltd, applied for environmental authorisation to mine and process sand and gravel through crushing, screening and washing of 115.43ha of the farm Doornkraal 832, Malmesbury, Western Cape Province.

SITE CONDITIONS:

Warm and dry weather conditions



REPORTABLE ENVIRONMENTAL INCIDENTS:

Incident Date:	
Incident No:	
Incident:	
How addressed:	
When addressed:	

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

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	-	Compliant	
National Environmental Management Act: Biodiversity Act, 2004 (Act No. 10 of 2004) and amendments	5	-	Compliant	
Mine Health and Safety Act, 1996 (Act No 29 of 1996)	5	-	Compliant	
Copy of the EA and EMPr available on site	5	-	Compliant	Copy of EMPr available at the office.
Mineral and Petroleum Resources Development Act	5	-	Compliant	
Department of Water and Sanitation)Act 1998	5	3	Partially Compliant	Application currently awaiting final signature, awaiting outcome after the lockdown period.
National Heritage Resources Act No 25 of 1999	5	-	Compliant	
Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983)	5	-	Compliant	
National Environmental Management: Air Quality Act, 2004 (Act No 39 of 2004)	5	-	Compliant	
Western Cape Nature Conservation Act, 1998 (Act 10 of 1998)	5	3	Partially Compliant	Buffer areas must be implemented around wetland areas.
Western Cape Land Use Planning Act, 2014 (Act No. 3 of 2014)	5	-	Compliant	
Swartland Municipality: Land Use Planning Bylaws, 2015 (No 264 of 2015) Swartland Municipal Spatial Development Framework	5	-	Compliant	Application approved on 21 January 2019.
Western Cape Provincial Spatial Development Framework	5	-	Compliant	18 February 2019



DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS			
	ASPECTS OF THE AFFECTED ENVIRONMENT						
TOPSOIL MANAGEMENT (FBAR P	PG NO 136-137)						
The upper 500 mm of the soil, whether it contains gravel or not, must be stripped and stockpiled before mining.	5	-	Compliant	Application in start-up phase.			
Topsoil is a valuable and essential resource for rehabilitation and it must therefore be managed carefully to conserve and maintain it throughout the stockpiling and rehabilitation processes.	5	-	Compliant				
Topsoil stripping, stockpiling and respreading must be done in a systematic way. The mining plan have to be such that topsoil is stockpiled for the minimum possible time by rehabilitating different mining blocks progressively. Topsoil must ideally be used for rehabilitation within 3 months of it being stockpiled.	5	-	Compliant	The 1 st mining area was completed and the rehabilitated.			
Topsoil stockpiles must be placed in previously disturbed areas as far away from wetlands and watercourses as possible. No topsoil or other materials or equipment may be stored in the no-go areas or buffer areas.	5	-	Compliant	Client was instructed on the placement of all stockpiles.			
Topsoil heaps may not exceed 1.5 m.	5	-	Compliant				
Topsoil stockpiles must be protected against losses by water and wind erosion. Stockpiles must be positioned	5	-	Compliant	Stockpiles will be placed on levelled areas			



DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
so as not to be vulnerable to erosion. The establishment of plants on the stockpiles will help to prevent erosion.				
The stockpiled topsoil must be evenly spread over the entire mining area, so that there is a depth of 500 mm of sandy topsoil above the underlying clay. The depth must be monitored during spreading to ensure that coverage is adequate and even.	5	-	Compliant	
Strive to re-instate topsoil at a time of year when vegetation cover can be established as quickly as possible afterwards, so that erosion of returned topsoil by both rain and wind, before vegetation is established, is minimized. The best time of year is at the end of the rainy season, when there is moisture in the soil for vegetation establishment and the risk of heavy rainfall events is minimal. areas or buffer areas.	5	-	Compliant	
A cover crop must be planted and established immediately after spreading of topsoil, to stabilize the soil and protect it from erosion. The cover crop must be fertilized for optimum production. It is important that rehabilitation be taken up to the point of cover crop stabilization.	5	-	Compliant	



DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Rehabilitation cannot be considered complete until the first cover crop is well established.				
Run-off water must be controlled via temporary banks during mining, where necessary on the slopes, to ensure that accumulation of run-off does not cause down-slope erosion.	5	-	Compliant	
The rehabilitated area must be monitored for erosion, and appropriately stabilized if any erosion occurs for at least 24 months after reinstatement.	5	-	Compliant	1 section fully rehabilitated.
All activities are within the approved boundaries	5	3	Partially Compliant	Client to install boundary markers.
VEGETATION MANAGEMENT (FB	AR PG NO 142)			
No vegetation, alien species or other is dumped in areas with indigenous vegetation	5	-	Compliant	
Temporary stockpiles free of weeds	5	-	Compliant	At the time of inspection all stockpiles were weed free.
Invader or exotic species controlled on the rehabilitated areas	5	-	Compliant	
Removal of invader or exotic plant species need to be done according to the weed and invader plant management plan.	5	-	Compliant	



DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Weed and invader plant management plan implemented	5	-	Compliant	
A 40 m buffer area must be demarcated, sign posted and managed as no-go area around areas with natural vegetation.	5	3	Non - Compliant	To be done urgently.
FAUNA (FBAR PG NO 144)				
All animals, birds and reptiles protected on site.	5	-	Compliant	
Mining area daily monitored for trapped fauna or snares	5	-	Compliant	
AIR QUALITY AND NOISE (FBAR I	PG NO 134)			
Dust suppression implementation	5	-	Compliant	Water use application still in process. However if required water from the milkery will be used on discretion.
Dust suppression equipment functional	5	-	Compliant	
Vehicles utilising the access road are adhering to the speed 40km/h limit	5	-	Non - Compliant	Speed limit sign post to be erected.
Employees and staff conducted themselves in an acceptable manner.	5	-	Compliant	
No load music permitted on site	5	-	Compliant	
All stockpiling vehicles must be equipped with silencers and maintained in a road worthy condition	5	-	Compliant	
SURFACE AND STORM WATER MANAGEMENT (FBAR PG NO 139)				



	COMPLIANCE	NON COMPLIANCE		
DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Storm water diverted around the topsoil heaps, and access roads to prevent erosion and loss of material.	5	-	Compliant	
All effluents containing oil, grease or other industrial substances are removed from site	5	-	Compliant	At the time of inspection there was no visible industrial substances.
Spills cleaned immediately and proof filed.	5	-	Compliant	No spills on site.
Mining conducted in accordance with the best Practice Guidelines for small scale mining	5	-	Compliant	
Damming of water at the mining area prevented	5	-	Compliant	
VISUAL EXPOSURE (FBAR PG NO	O 133)			
Is the contractor implementing good visual and housekeeping standards	5	-	Compliant	
Concurrent rehabilitation must be done as strip mining progress to limit the visual impact on the aesthetic value of the area.	5	-	Compliant	1 st mining strip rehabilitated
HAZARDOUS CHEMICAL MANAGEMENT (FBAR PG. NO 139-140)				
Hazardous and general waste are stored in separate containers	5	2	Compliant	Three bins are located at the entrance of the site, Client was instructed to cover all three bins.
Hazardous waste stored in a sealed, non-leaking containers This must be removed daily.	5	-	Compliant	
All containers containing hazardous closed and store only in approved areas	5	-	Compliant	



DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Always put drip trays under vehicles and machinery	5	-	Compliant	All vehicles will be serviced off site.
Upon discovery of a hydro-carbon spill (leak), work is to stop immediately and the manager is to be notified to initiate a clean-up.	5	-	Compliant	
WASTE MANAGEMENT (FBAR PO	6. NO 139)			
Site free of day-to-day litter	5	-	Compliant	Site was clean and tidy.
Waste separated into labelled containers	5	2	Compliant	Three bins are located at the entrance of site. client was instructed to put lids on all three bins.
Non-biodegradable refuse such as glass bottles, plastic bags, metal scrap, etc, should be stored in a container with a closable lid.	5	-	Compliant	
No waste stockpile area established outside the stockpiling site boundaries.	5	-	Compliant	
Vehicle maintenance conducted within the service bay area.	5	-	Compliant	
Any effluents containing oil, grease or other industrial substances to be collected in a suitable receptacle and removed from the site, either for resale or for appropriate disposal at a recognised facility.	5	-	Compliant	
Diesel bowser to be equipped with a drip tray at all times	5	-	Compliant	
POTABLE WATER AND ABLUTION FACILITIES (EMPR PG NO 145)				



DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
Ablution facilities available on site more than 200m from a watercourse	5	-	Compliant	
Chemical toilets serviced regularly by an accredited waste handling contractor	5	-	Compliant	
FIRE MANAGEMENT				
Firefighting equipment available on-site	5	-	Compliant	Firefighting equipment is kept in the loader.
No open fires at mining area allowed	5	-	Compliant	
MINE AND EQUIPMENT MANAGE	MENT (EMPR PG NO	O 193)		
Mining will be done in daylight hours	5	-	Compliant	
Mining conducted within approved footprint area	5	-	Compliant	
Incident register maintained on site	5	-	Compliant	
Emergency preparedness plan and register implemented on site	5	-	Compliant	
ACCESS ROADS, VEHICLES AND TRANSPORTING OF MATERIAL (EMPR PG NO 138)				
Storm water must be diverted around the access road and haul roads to prevent erosion.	5	-	Compliant	
Vehicular movement must be restricted to existing access routes to prevent crisscrossing of tracks through undisturbed areas.	5	-	Compliant	



DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
The existing gravel tracks, that is present on the farmland area, be utilized as internal roads in order to access the mining development.	5	-	Compliant	
EXISTING INFRASTRUCTURE				
ESKOM INFRASTRUCTURE (EMP	R PG NO 144)			
Buffers of 10 m must be implemented and maintained in respect of the two Eskom power lines to ensure that: No construction work is executed too close to any Eskom Structure or structure-supporting mechanism; No work or machinery is near to the conductors of the respective power lines; and There is an obstruction free zone around all pylons.	5	3	Non -Compliant	Client was instructed to implement the boundary and no go areas as a matter of urgency. However at the time of inspection this was still not implemented and they were again requested to do this urgently.
No stockpiling of material is allowed within the servitude areas.	5	1	Compliant	Demarcations needs to be in place to ensure no stockpiling is done in servitude areas.
TELKOM INFRASTRUCTURE (EMPR PG NO 144)				
As the Telkom mast is situated outside the proposed footprint of the mining area, the mining activities are not expected to impact the infrastructure. The mast must however be managed as a no-go area and should any damage	5	3	Non - Compliant	No Go area to be implemented with signage boards.



DESCRIPTION	COMPLIANCE SCORE	NON-COMPLIANCE SCORE	STATUS	COMMENTS
occur Telkom must immediately (within 2 hours) be notified.				
EMPLOYEE AND SAFETY MANAGEMENT (EMPR PG NO 145)				
Workers inducted and informed of EMP conditions	5	-	Compliant	
Suitable covered receptacles should be available at all times	5	-	Compliant	
Workers must have access to the correct personal protection equipment (PPE) as required by law.	5	-	Compliant	
Effective access control to prevent unauthorised entry.	5	-	Compliant	
Area fenced off with lockable gates	5	3	Non- compliant	There are 2 lockable gates. However, at the time of inspection the farm gate where animals has access to the mining area were open which poses a danger to the animals. Client is advised to section mining area off to ensure safety of animals or close gates

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

No written comments /complaints were received during the audit period February 2021.

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 89% for the month of 26 February 2021.

The Mining right was executed ("Effective Date) on the 7th of May 2019. The site commenced on the 14th of February 2020. Site induction was also done on the 14th of February 2020. The first inspection was conducted on the 27th of February 2020. At the time of inspection, no mining had started.

All ECO reports will be filed on the Greenmined Environmental website, www.greenmined.co.za.

The Swartland Municipality approved the zoning application on 21 January 2019. The Department of Environmental Affairs and Development Planning approved the Land Use Application on February 2019.

All mining activities and infrastructure will be taking place within the mining right area. At the time of inspection, the client was instructed on notice boards and boundary areas that must be implemented.

A water use application was submitted in October 2017. The outcome of this application is still outstanding. However, it has been confirmed that the application is in process and awaits signature.

Management of Dust Generation:

The fallout dust monitoring was implemented on the 14th of February 2020.

The client incorrectly placed the dust monitoring poles and was instructed to move to the poles to the provided coordinates. No inspection was done in January, first filters in February 2021.

Waste Management:

The client has placed three sealable refuge bins on site. For hazardous waste, general waste and Non- biodegradable waste. Up to date no hazardous waste was generated on site. A register must be kept on site with proof of waste removals. *An oil spill kit must be kept on site.*

Telkom Mast:

As the Telkom mast is situated outside the proposed footprint of the mining area, the mining activities are not expected to impact the infrastructure. The mast must however be managed as a no-go area and should any damage occur Telkom must immediately (within 2 hours) be notified.

Eskom:

No work is allowed within Eskom reserve areas and servitudes (132kV - 15.5 m & 11kV - 9.0 m either side of centre line);

- No stockpiling of material will be allowed within the servitude areas
- No construction work may be executed closer than 10 meters from any Eskom structure or structure-supporting mechanism;
- No work or no machinery nearer than 3.8 m to the conductors of the 132 kV and 3.0 m to the 11kV;
- Eskom must have at least a 10m obstruction free zone around all pylons; Any development which necessitates the relocation of Eskom's services will be to the account of the developer."

Access roads:

Vehicles utilising the access road must restrict speed to 40km/h.

These restrictions were erected and placed in all the areas which are highly visible.

Hauling routes for construction vehicles and machinery is clearly marked and appropriate signalling was posted.

Employee and Safety Management:

Workers were inducted and informed of EMPr conditions. All workers signed as confirmation of understanding the induction. Appropriate notification signage was erected at the mining site. This gives a clear warning to the public about the hazard around the mining site and presence of heavy vehicles and machinery.



DOCUMENT CHECKLIST:

Environmental Authorisation - Present

Mining Right - Present

Environmental Management Plan - Present

Confirmation of Contractors

Awareness of EA Conditions - Present

Environmental Induction and Awareness Training - Present

Letter of Enactment to DMR - Present

Alien Vegetation Control Programme - Present

Dust Monitoring Plan
 Present

Emergency Preparedness Plan - Present

Complaints Register - Present

Waste Registers - Present

Reporting of Environmental Incidents - Present

Incidents and Accidents Register - Present

Environmental Audit Report - Present

POSITIVE FINDINGS:

- Bins were placed at entrance of site.
- Chemical toilet.

NEGATIVE FINDINGS:.

- Bins to include covers / lids
- Client still to implement clear visible boundary markers,
- Bin labels
- No go area signage boards
- Unit 4 dust pole to be moved to area on site boundary
- Farm gate- Cows walking freely close to mining area posing a danger to animals.
- Buffers of 10m must be implemented and maintained in respect of the two Eskom power lines to ensure that no
 construction work is executed close to any Eskom structure or structures supporting mechanisms. No work or
 machinery is near to the conductors of the respective power lines and there is an obstruction free zone around all
 pylons.
- A 40 m buffer area must be demarcated, sign posted and managed as no-go area around areas with natural vegetation.
- Speed limit signs to be erected



MATTERS TO BE ADDRESSED ON SITE:

- Bins to include covers / lids
- Client still to implement clear visible boundary markers,
- Bin labels
- No go area signage boards
- Unit 2 dust pole to be moved to area on site boundary
- Farm gate- Cows walking freely close to mining area posing a danger to animals.
- Buffers of 10m must be implemented and maintained in respect of the two Eskom power lines to ensure that no
 construction work is executed close to any Eskom structure or structures supporting mechanisms. No work or
 machinery is near to the conductors of the respective power lines and there is an obstruction free zone around all
 pylons.
- A 40 m buffer area must be demarcated, sign posted and managed as no-go area around areas with natural vegetation.
- · Speed limit signs to be erected

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 mining area. However, If the client wishes to continue screening an amendment must be done.

NEED FOR AMENDMENT OF THE EMPR:

N/A

FINANCIAL PROVISION:

The 2019 financial provision required to rehabilitate the processing area in accordance with the Guideline Document for the evaluation of the Quantum of Closure-related Financial Provision by a Mine and as prescribed in terms of Regulation 54 (1) is R923 967.85.

Bank Guarantee: R923 967.85

ECO SIGNATURE:

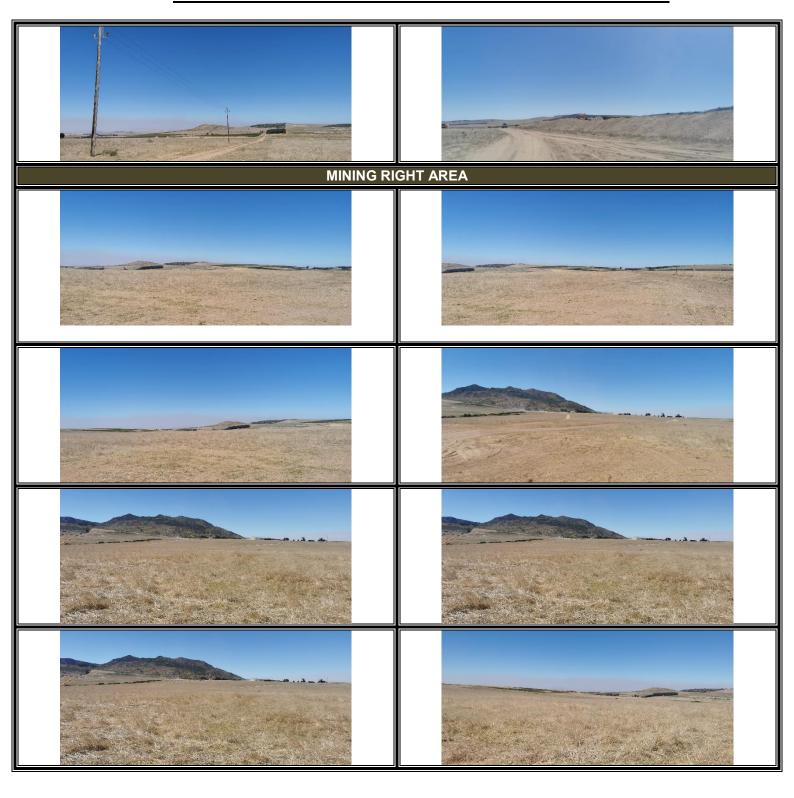
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Murchellin Saal	Assol.	26 February 2021



PHOTOGRAPHS:











ESKOM POWER LINES: Buffers of 10m must be implemented and maintained in respect of the two eskom power lines to ensure that no construction work is executed close to any eskom structure or structures supporting mechanisms. No work or machinery is near to the conductors of the respective power lines and there is an obstruction free zone around all pylons.





1ST MINING STRIP – COMPLETELY REHABILITATED







2 ND MINING STRIP – CURRENTLY IN PROCESS					
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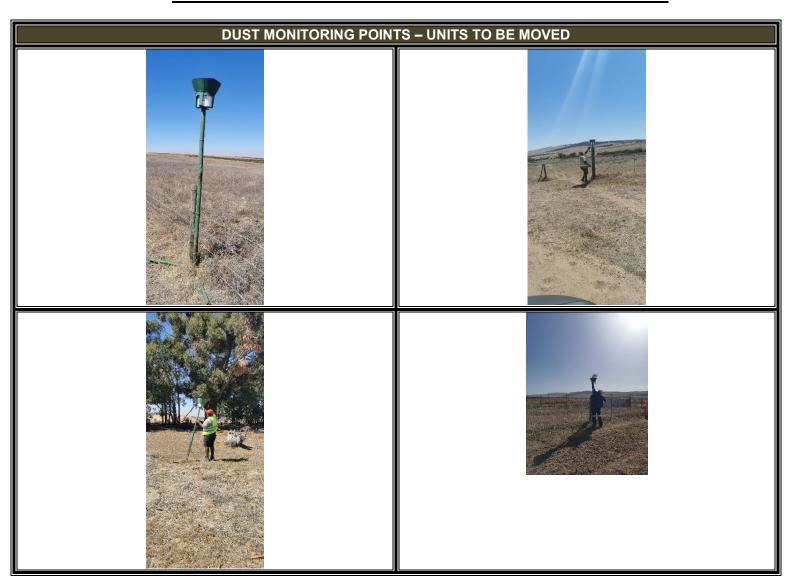












END OF FEBRUARY REPORT