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HERITAGE MANAGEMENT PLAN REPORT

De Wittekrans Colliery

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CREDIT SHEET

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REPORT AUTHOR

Stephan Gaigher

SIGNED BY: STEPHAN GAIGHER



Statement of Independence

As the duly appointed representative of G&A Heritage, I Stephan Gaigher, hereby confirm my independence as a specialist and declare that neither I nor G&A Heritage have any interests, be it business or otherwise, in any proposed activity, application or appeal in respect of which the Heritage Consultant was appointed as Heritage Assessment Practitioner, other than fair remuneration for work performed on this project.

Table of Contents

1. Non-Technical Summary	4
2. Content	6
3. Background	7
3.1 Project Description	7
3.2 Project Location	7
3.3 Original Layout and Study Area	7
4. Placing the Heritage Management Plan	10
SAHRA Requirement 1	11
SAHRA Requirement 2	11
SAHRA Requirement 3	12
SAHRA Requirement 4 & 5	19
SAHRA Requirement 6	19
Construction	21
General Measures	21
Decommissioning Phase	21
Recommendations	22
Conclusion	22
Appendices	23
Appendix 1: Heritage Method Statement	23
Appendix 2: Heritage Monitoring Checklist	23
Appendix 3: Heritage Monitoring Monthly Report Framework Appendix Heritage Audit Report Framework	23
Appendix 1: Heritage Method Statement	24
Appendix 2. Heritage Monitoring Checklist	26
Appendix 3: Heritage Monthly Report Framework	27
Appendix 4: Heritage Audit Report Framework	28

Table of Figures

Figure 1. Original Mining Rights Study Area in 2010 and 2013	8
Figure 2. Final Impacted areas as of March 2013. Only areas outlined in yellow will be affected. 9 Figure 10	
Figure 4. Site 13 falls outside of the mining area indicated with the yellow line.	12
Figure 5. Location of Site 19 in relation to the mining area.....	13
Figure 6. Site 14 in terms of the mining area.....	14
Figure 7. Location of Site 15	15
Figure 8. Previously unidentified Graves.....	16
Figure 9. Previously unidentified graves.....	17
Figure 10. Previously unidentified graves.....	18
Figure 11. Location of the previously unidentified burial site	19
Figure 12. Sites 1-8, 10-12, 15-18, 20-36 shown to be outside of the final mining area.	20

Non-Technical Summary

The Heritage Management Plan (HMP) describes the management and mitigation measures that are to be implemented in order to address the heritage impacts of the proposed De Wittekrans Colliery project. In contrast to a Heritage Impact Assessment (HIA) which focuses exclusively on the management of individual or grouped sites, the HMP looks at the heritage management of the project in terms of the sites. It is more strategic than the HIA and aims to be proactive rather than reactive. These measures are required in order to ensure that the negative heritage impacts are minimised and/or prevented and positive heritage impacts are enhanced, as far as is possible. It can be seen as an extension of the HIA management guidelines.

This HMP further provides development guidelines, specifically in terms of site-specific and/or activity-specific planning and design and provides for compliance monitoring, stipulating applicable standards and timeframes, where relevant. The HMP also identifies people to undertake specific tasks, allocates responsibility and accountability, and provides for verification of the effective implementation of the Heritage Management Objectives, as identified in the Environmental and Social Management Plan (ESMP) for the De Wittekrans Colliery project.

The HMP is also compiled to span specific time-bound activities and impacts and focuses on monitoring and measurement of activities that may have detrimental heritage impacts.

Any potential future maintenance or operation activities that may be necessary within the lifecycle of the colliery in response to normal wear and tear, weathering, damage, fire etc., must be conducted in accordance with the provisions of this HMP. Any changes / expansions to the Colliery and / or any of its associated infrastructure may require further approvals from the South African Heritage Resources Agency (SAHRA) or their provincial proxy, the Mpumalanga Provincial Heritage Resources Agency (MPHRA).

It is recommended that all works during construction, operation and decommissioning be monitored by the Environmental Control Officer (ECO), where necessary with the assistance of a project Heritage Specialist, as recommended in the Environmental and Social Management Plan Report (ESMPR). Outcomes are to be recorded. Periodic site inspections by a qualified heritage practitioner is also recommended especially in the case of Site 9.

The following project specific recommendations are made;

1. All construction activities should be monitored and audited during the construction period. This can be conducted by the ECO or an adequately qualified and independent Heritage Control Officer (HCO) under supervision and periodic monitoring of a qualified heritage practitioner.
2. The recommendations regarding the management and monitoring of the Rock Art site at Site 9 as outlined in the accompanying report should be adhered to.
3. The findings and recommendations with specific reference to the Chance Finds Protocol of the attached Palaeontological Impact Assessment (PIA) should be followed.
4. All management and mitigation measures should be implemented to effectively protect heritage resources from any potential damage.

5. Further management interventions that are required are policies and strategies that address the issues related to increased accessibility to heritage resources as a result of the development (i.e. access roads, etc.). These include:
 - a) Research Policy Strategy
 - b) Colliery staff should be educated in terms of the value of heritage resources and the need for their protection and conservation
 - c) Interpretation strategy (in terms of the specific heritage significance of each site/area).
6. A framework should be developed for research within the newly accessible areas to encourage and guide further and current research.
7. Where details are lacking, these can be managed within the HMP and through consulting with a qualified heritage advisor, as necessary.

Content

The HMP is a practical document that provides guidelines for any activities proposed for the design, development, operation and maintenance of the De Wittekrans Colliery. The structure of this HMP is largely based on the requirements expressed by the South African Heritage Resources Agency (SAHRA) in their letter of Monday June 10, 2013 (Ref.9/2/214/004) in which they give the following requirements:

As such, based on the information provided in the above report, SAHRA requires the following;

1. A Palaeontological study must be undertaken to assess whether or not the development will impact upon significant palaeontological resources. Alternatively, a letter of exemption from a Palaeontologist is required to indicate that this is unnecessary. If the area is deemed sensitive or if significant heritage is identified, a full Palaeontological Report may be required.
2. The structure identified in the report as Site 13 requires further investigation before demolition is considered. This investigation take the form of a Heritage Statement and a proposed grading of the structure. It must be noted that a permit must be granted in terms of Section 34 of the NHRA by the Mpumalanga Provincial Heritage Resources Agency (B. Moduka, 013 766 5196 or bmoduk@mpg.gov.za) before destruction can take place.
3. The recommendation for exhumation and relocation of the graves at Sites 14 and 19 is endorsed. In order to proceed with this, a permit must be granted in terms of Section 36 of the NHRA by the SAHRA Burial Ground and Graves Unit (I. Masiteng, 012 362 2535 or imasiteng@sat.sahra.org.za).
4. The recommendations included in the Noise and Vibration Specialist Study as well as in the Air Quality and Dust Specialist Study with regard to the impacts of the proposed mining on the Rock Art site identified as Site 9 in the report are endorsed.
5. A detailed Conservation Management Plan must be established for Site 9 indicating monitoring protocols and reporting requirements for the conservation of the rock art at Site 9.
6. A Conservation Management Plan must be established for the remaining heritage identified within the study area (Sites 1 to 8, 10 to 12, 15 to 18 and 20 to 36) in order to manage and conserve these resources for the duration of the proposed mine.

This HMP for the proposed De Wittekrans Colliery will address the above six points individually with the goal of satisfying the outstanding requirements as expressed by SAHRA for the development of the De Wittekrans Colliery. It is important to note that the proposed mining area has changed design on several occasions since the initial design of 2010. The final design on which this study is based excluded the majority of the sites mentioned in Point 6 of the SAHRA letter above.

Background

Project Description

Menar (Mashala Henrina Coal (Pty) Ltd) is proposing the development of a new Coal Mine at De Wittekrans in the Mpumalanga Province. The proposed mining methods are conventional opencast mining, making use of the roll-over method, while the standard bord and pillar mining method will be used for the underground sections. Rehabilitation will take place on an ongoing basis.

Project Location

Menar Mining has been granted a mining right in respect of coal reserves on Portions 5, 7, 10, 11 and the remaining extents of Portions 1 and 2 of the farm De Wittekrans 218 IS, the remaining extent of Portion 1 of the farm Tweefontein 203 IS, the remaining extent of the farm Groblershoek 191 IS and all portions on the farm Groblershoop 192 IS and Israel 207 IS. The project area is situated between the towns of Ermelo and Hendrina in the Mpumalanga Province, on the western side of the N11.

Original Layout and Study Area

The original layout for the proposed colliery proposed in 2010 and 2013 and which formed the basis for the Heritage Impact Assessments (HIA's) commissioned in 2010 and 2013. The original study area included a much larger area than was eventually decided on.

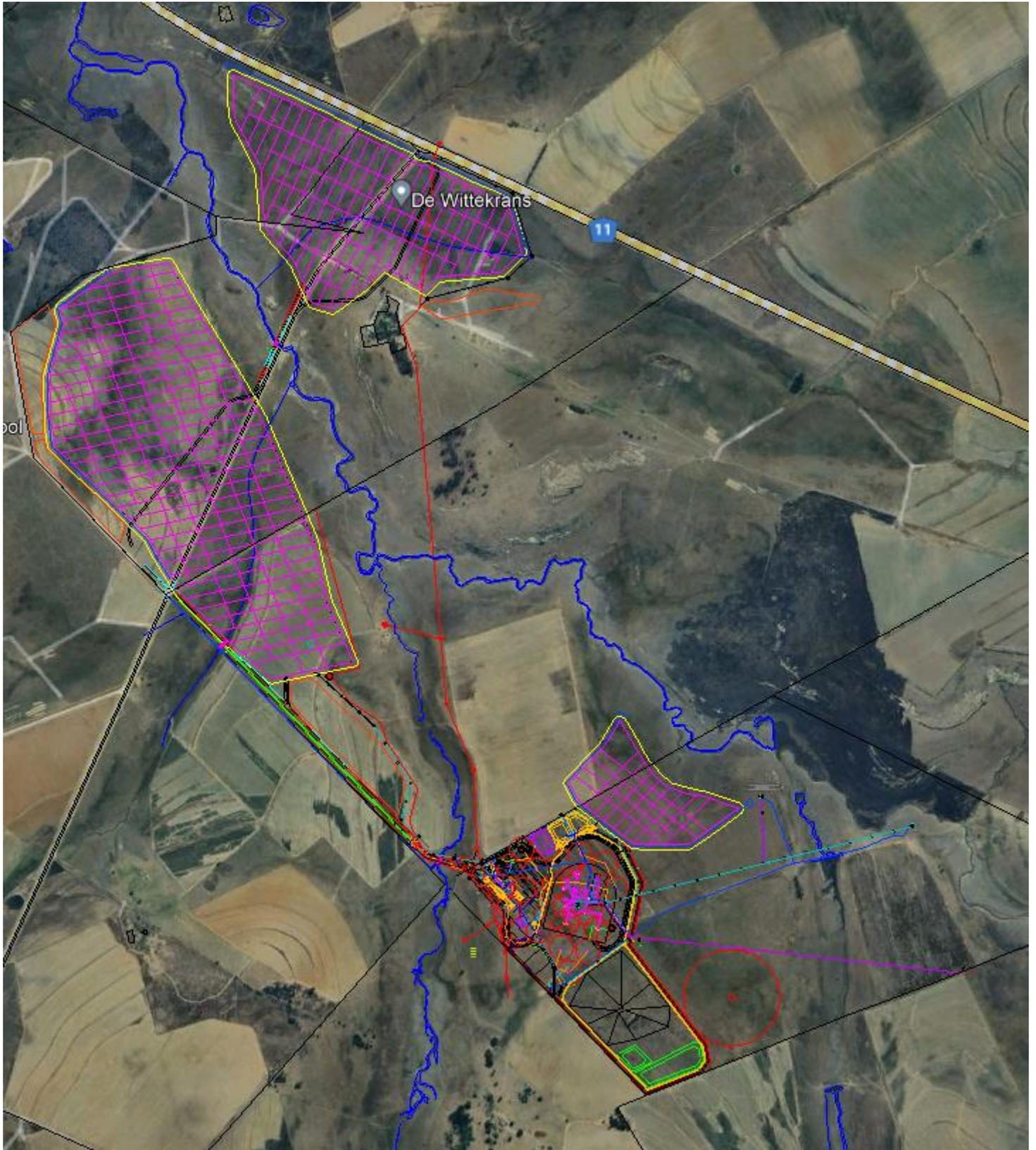


Figure 2. Final Impacted areas as of March 2013. Only areas outlined in yellow will be affected.

Placing the Heritage Management Plan

The HMP is placed amongst various management documents for the De Wittekrans Colliery project. The HMP is the net that catches all the detail during implementation and ensures that implementation of the project phases is well monitored and aligned with broader level planning, that agreements are put in place during the approval stage of planning, and to ensure monitoring of all conditions of approval.

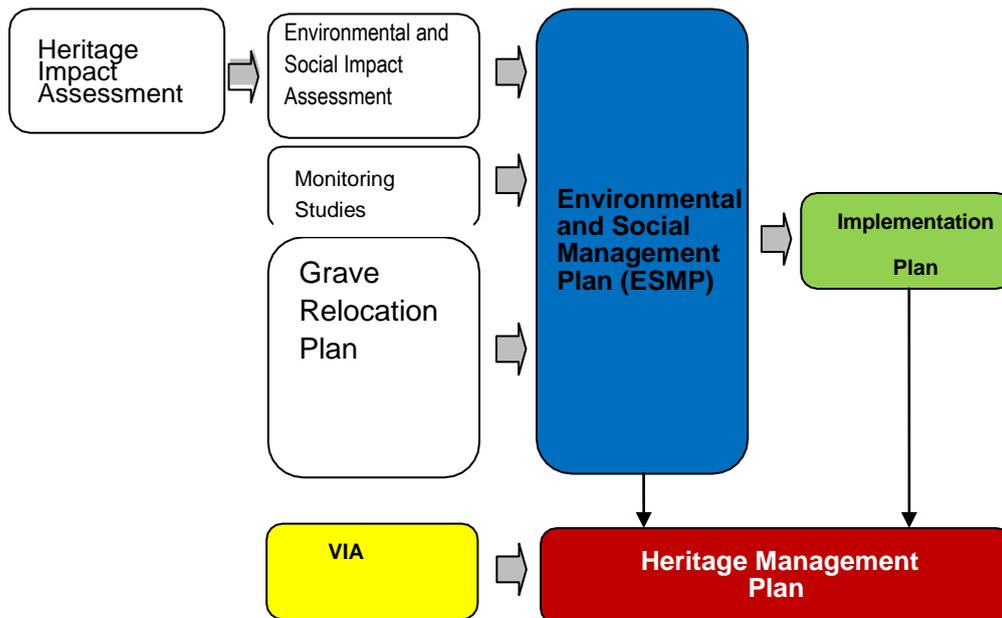


Figure 3. Position of the HMP

The HMP must remain adaptive to change and provide a framework for monitoring and mitigating impacts and feeding back into the planning process.

SAHRA Requirement 1

A Palaeontological study must be undertaken to assess whether or not the development will impact upon significant palaeontological resources. Alternatively, a letter of exemption from a Palaeontologist is required to indicate that this is unnecessary. If the area is deemed sensitive or if significant heritage is identified, a full Palaeontological Report may be required.

Response

A full field-based palaeontological report compiled by Dr Francois Durant of the South African Geological Surveys are appended to this report.

SAHRA Requirement 2

The structure identified in the report as Site 13 requires further investigation before demolition is considered. This investigation take the form of a Heritage Statement and a proposed grading of the structure. It must be noted that a permit must be granted in terms of Section 34 of the NHRA by the Mpumalanga Provincial Heritage Resources Agency (B. Moduka, 013 766 5196 or bmoduk@mpg.gov.za) before destruction can take place.

Response

Although the structure at Site 13 was indicated as being inside of the proposed mining area, the new and final layout indicates that it will fall outside of the proposed mining areas as of May 2023. The site will therefore not be directly affected by the proposed mining and the type of resource is also not prone to secondary impacts if any.



Figure 4. Site 13 falls outside of the mining area indicated with the yellow line.

SAHRA Requirement 3

The recommendation for exhumation and relocation of the graves at Sites 14 and 19 is endorsed. In order to proceed with this, a permit must be granted in terms of Section 36 of the NHRA by the SAHRA Burial Ground and Graves Unit (I. Masiteng, 012 362 2535 or imasiteng@sat.sahra.org.za).

Response:

Sites 14 and 19 was found to fall well outside of the final mining area.

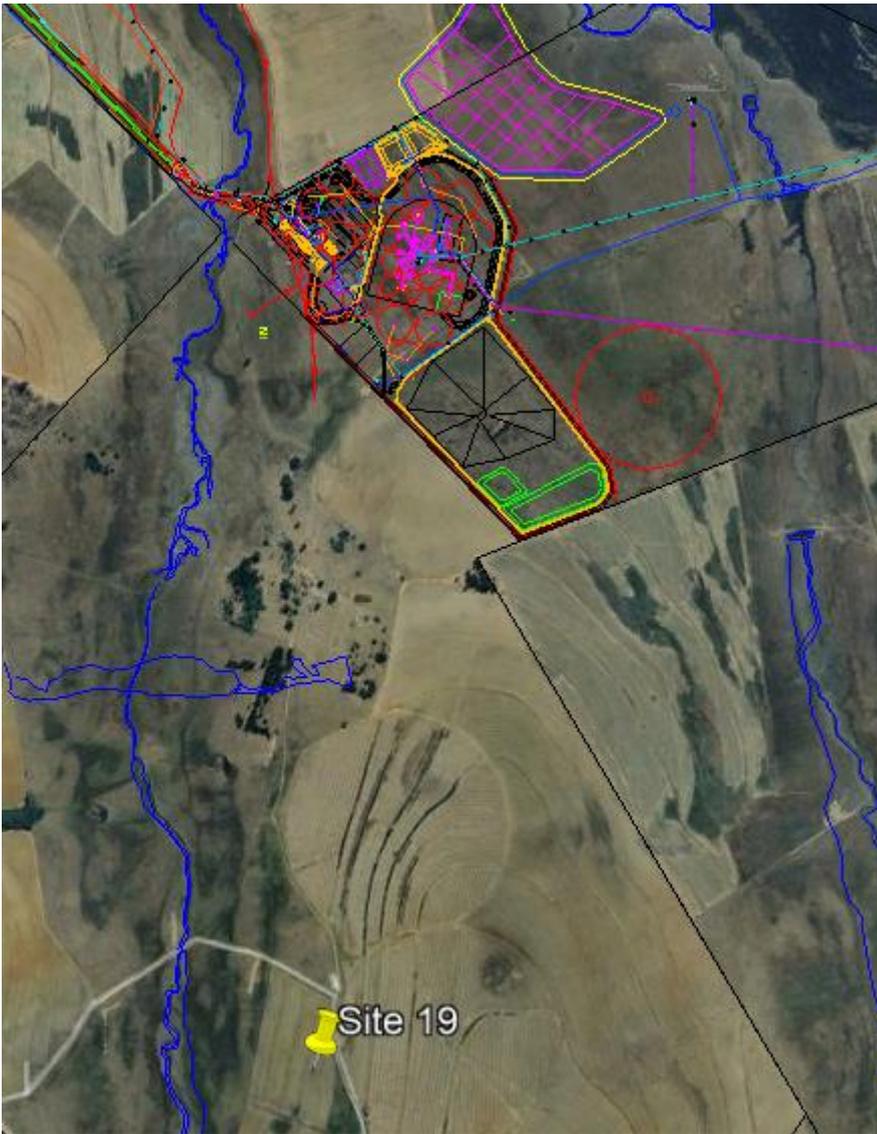


Figure 5. Location of Site 19 in relation to the mining area



Figure 6. Site 14 in terms of the mining area.

Site 15

Apart from sites 14 and 19 (which both falls outside of the final mining layout) there is another burial site, Site 15, which falls within the final mining area. Menar has appointed a grave relocation specialist and is currently in the process of relocating the graves found at this site.



Figure 7. Location of Site 15

Unrecorded Burial Site

In the process of collecting the information for this HMP a further burial site was identified that was not found by either of the 2010 or 2013 HIA studies. This site would have been within the original mining rights area, however it falls outside of the final mining area. It is only mentioned here in order that it be included in the future management of the heritage resources associated with this project.

The site is located at:

GPS: 26°15'4.80"S

29°48'29.95"E



Figure 8. Previously unidentified Graves



Figure 9. Previously unidentified graves



Figure 10. Previously unidentified graves

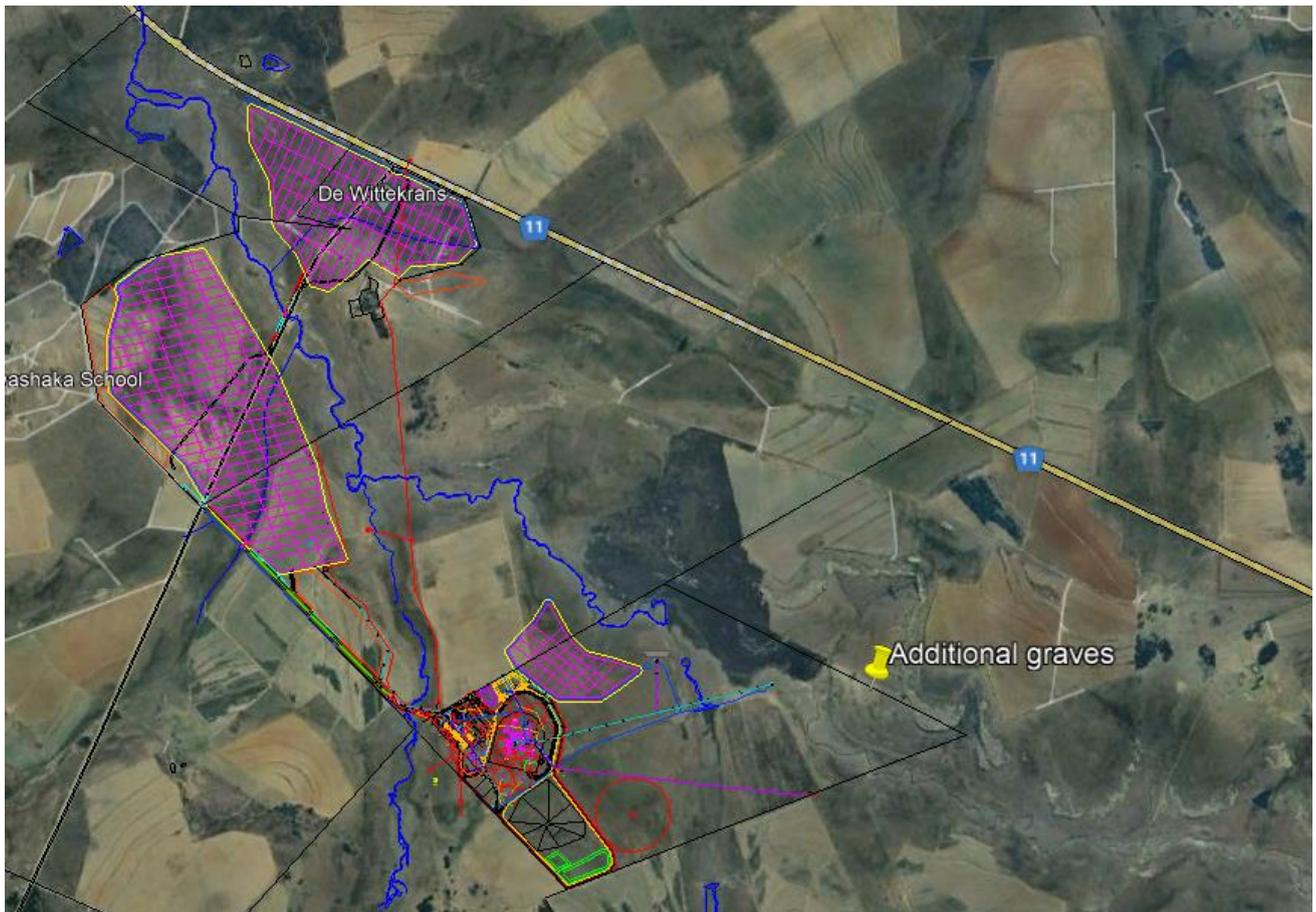


Figure 11. Location of the previously unidentified burial site

SAHRA Requirement 4 & 5

4. The recommendations included in the Noise and Vibration Specialist Study as well as in the Air Quality and Dust Specialist Study with regard to the impacts of the proposed mining on the Rock Art site identified as Site 9 in the report are endorsed.

5. A detailed Conservation Management Plan must be established for Site 9 indicating monitoring protocols and reporting requirements for the conservation of the rock art at Site 9.

Response:

A comprehensive documentation and management plan is included with this HMP. It is a standalone report compiled by a Rock Art specialist and it addresses all the requirements of the Noise and Vibration Specialist Study as well as the Dust Specialist Study with appropriate recommendations for monitoring above.

SAHRA Requirement 6

A Conservation Management Plan must be established for the remaining heritage identified within the study area (Sites 1 to 8, 10 to 12, 15 to 18 and 20 to 36) in order to manage and conserve these resources for the duration of the proposed mine.

Response:

As with the majority of sites the final mining layout excludes all of the sites mentioned above. None of the sites will be prone to secondary impacts due to their nature and therefore no further action is required to be taken.

Site 15 was discussed separately above and is currently being mitigated.

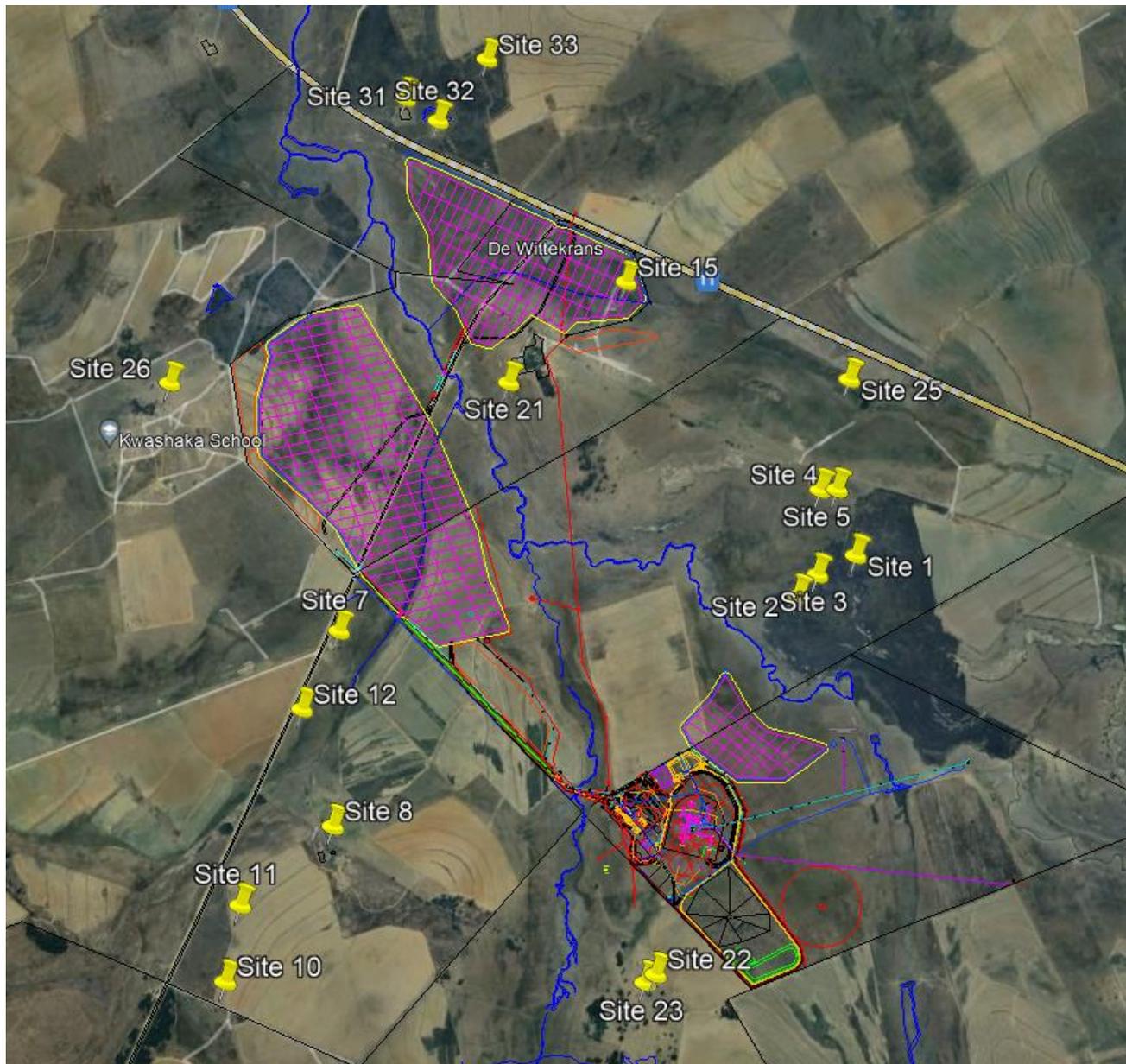


Figure 12. Sites 1-8, 10-12, 15-18, 20-36 shown to be outside of the final mining area.

Construction

General and site-specific mitigation measures relevant to the construction phase are detailed below.

General Measures

General measures are provided for the construction phase.

Table 3: General Measures: Construction and Rehabilitation

No.	General Measures: Construction and Rehabilitation
3.1	All construction activities must be regularly monitored by the Heritage Manager, ECO, and/or any other qualified person with recognised heritage training to monitor and report on construction in terms of the approved Method Statements. Site inspection should be done by the Project Heritage Manager if and when needed.
3.2	All heritage impacts that are identified during any project phase should be monitored and incorporated into current and future activities, to avoid and/or mitigate impacts on them.

Decommissioning Phase

At this stage no specific decommissioning phase has been determined and as such no management parameters can be set. When this phase has been described, it is recommended that this HMP be modified and updated to include it.

Recommendations

The HMP recommendations are focused mainly on the construction and operational phases of the De Wittekrans Colliery project. As information becomes available this HMP should be adapted to include new information and possible new sites. With the knowledge currently at hand, the recommendations for the management of heritage resources within the development footprint are as follows:

1. All activities on the project should be monitored and audited during construction. This should be conducted by the project ECO and audited by the Project Heritage Manager on a quarterly basis.
2. Any construction camps or similar infrastructure impacts should be evaluated against the known record of heritage sites and adapted to conform to the requirements of this HMP.
3. All management and mitigation measures should be implemented to effectively protect heritage resources from development damage.
4. Further management interventions that are required are policies and strategies that address the issues related to the proposed and steady increase in access to previously inaccessible areas;
 - i) Site Management Plan;
 - ii) Research Policy Strategy;
 - iii) Interpretation Strategy.
5. Information about the heritage resources must be compiled into a GIS database, for ease of access and to enhance planning, management and interpretation.
6. A revised Annual Plan should inform on management of new impacts and evaluation of the efficacy of past mitigation measures during the operational phase.
7. Where details are lacking, impact assessment can be conducted in the future. Specific on-site management of impacts on selected sites can be managed within the Heritage Management Plan and through consulting with a qualified advisor, as necessary.

Conclusion

SAHRA through a writ in 2013 indicated several conditions that should be met before permission could be granted for the continuation of the De Wittekrans Colliery. These included the management of several heritage sites identified during HIA's in 2010 and 2013. It was found that many of these sites now fall outside of the final mining development footprint, and they will not be impacted on anymore. They are for the most also not prone to secondary impacts.

Appendices

Appendix 1: Heritage Method Statement

Appendix 2: Heritage Monitoring Checklist

Appendix 3: Heritage Monitoring Monthly Report Framework Appendix

Heritage Audit Report Framework

Appendix 1: Heritage Method Statement

(To be completed on identification of significant impacts on heritage sites)

If the space provided is insufficient then attach additional sheets.

WHAT:	Activity			
WHO:	Site Foreman / contact person:		Signature:	
	Contractor:		Signature:	
	Submitted to (e.g. READ):		Approved by:	
	Date Submitted on:		Date Approved:	
WHEN:	Date works start		Date works complete	
	Rehabilitation period:		Programme restrictions (critical path, season restrictions etc.)	
	Split work Phasing:	Item	start date	end date
	Phase 1			
	Phase 2			
WHERE	Area of works – submit plan or sketch if appropriate – stockpile, detention ponds, boundaries / restriction of works, special heritage features or mitigation works, landscape features, sensitive sites, etc:			
HOW:	Route / site layout pegged:	Date available to inspect		Inspection persons required:
	Landscape concerns: (Specify items/details not covered in HMP. Refer to HMP items if required.)			
	Existing features & services affected (e.g. paths, curbing, water, electricity, etc.)			
	Sensitive heritage sites (archaeological, paleontological, etc.)			
	Sensitive visual landscape			
	Method/s of avoiding impacts			
	Method/s of mitigating impacts			
	Restricted areas (describe, No-Go areas, etc.)			

HOW	General Landscape: (specify items/details not covered in HMP. Refer to HMP items if required.)
(cont.)	Access routes and delivery routes:
	Machinery to be used:
	Earthworks & dust control:
	Concrete works:
	Storm-water control:
	Stockpiles of material:
	Refuse / rubble:
	Water quality – pumping, source & discharge points, settlement, filtration, duration, etc:
	Hydrocarbon control measures:
	I&AP notifications:
	Fire / emergency contingencies:
	Special conditions / mitigation measures (e.g. high sensitivity sites and features, etc.):
Comments:	

Appendix 2. Heritage Monitoring Checklist

(To be completed on initiation of new construction activities that could impact heritage sites)

Activity Description:			
Completed By and Position:		Date:	
No.	Monitoring Checklist Items	Response	Who is Responsible?
1.	Does the activity require approval from the relevant controlling body?		
2.	Has the activity been approved by the relevant controlling body?		
3.	Has the activity been approved by the Heritage Manager?		
4.	Have all the conditions of approval been complied with?		
5.	Does the activity comply with the provisions of the HMP?		
6.	Has a Method of Activity Form been completed by the contractor/proponent and accepted by the Site Office?		
7.	Are there any significantly negative heritage impacts associated to the activity?		
8.	Should the activity proceed?		
9.	Are there previous compliance issues and have they been remedied?		
10.	Is it necessary to issue a 'work stop order' on the activity?		
11.	How can the activity be improved to reduce negative impacts?		
12.	How can the activity be improved to enhance positive impacts?		
Additional Notes and Comments			
Required Actions			
1.			
2.			
3.			
4.			
5.			
6.			

Appendix 3: Heritage Monthly Report Framework

The following Heritage Audit Framework can be used to report on activities once they have been completed:

1. Title
2. Official Reference Number
3. Project Name
4. Project Phase
5. Activity Start Date
6. Monitoring Inspection Dates
7. Related Approvals and Management Plan/s
8. Conditions of Approval
9. Introduction
10. Monthly Compliance Statement
11. Specific Non-Compliance Issues and Remedies
12. Fines/Penalties Statement
13. Resulting Impacts (Positive and Negative)
14. Recommendations
15. Appendix 1: Monthly Photographs
16. Appendix 2: Heritage Monitoring Checklist/s

Appendix 4: Heritage Audit Report Framework

The following Heritage Audit Framework can be used to report on activities once they have been completed:

1. Title
2. Official Reference Number
3. Project Name
4. Project Phase/s
5. Activity Start and End Dates
6. Monitoring Inspection Dates
7. Final Audit Inspection Date
8. Related Approvals and Management Plan/s
9. Conditions of Approval
10. Introduction
11. Compliance Statement
12. Specific Non-Compliance Issues and Remedies
13. Fines/Penalties Statement
14. Resulting Impacts (Positive and Negative)
15. Recommendations
16. Appendix 1: Before, During and After Photographs
17. Appendix 2: Related Approvals
18. Appendix 3: Heritage Method Statement
19. Appendix 4: Heritage Monitoring Checklist