

**A SURVEY OF CULTURAL RESOURCES FOR SECUNDA
COLLIERIES BLOCK 5 AND SYFERFONTEIN MINING AREA
HIGHVELD RIDGE DISTRICT, MPUMALANGA**

For:

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SUMMARY

A survey of cultural resources for Secunda Collieries Block 5 and Syferfontein mining area, Highveld Ridge District, Mpumalanga.

The aim of the survey was to locate, identify, evaluate and document the sites, objects and structures of cultural importance found within the boundaries of the areas that is to be developed.

The following recommendations are put forward in section 8 of this report:

- The relocation of all the graves, their contents and headstones, if they are to be impacted upon by the proposed development.
- The archaeological investigation and documentation of the different Late Iron Age sites, especially those that are located in the areas where the shafts are to be made.
- The documentation of the various farmsteads, if they are to be impacted upon by the development.
- The developers should be notified that archaeological sites might be exposed during the construction work. If anything is noticed, it should be reported immediately to a museum, preferably one at which an archaeologist is available, so that an investigation and evaluation of the finds can be made.

CONTENTS

SUMMARY	i
CONTENTS	ii
1. AIMS OF THE SURVEY	1
2. TERMS OF REFERENCE	1
3. DEFINITIONS	1
4. METHODOLOGY	2
5. DESCRIPTION OF THE AREA	3
6. DISCUSSION	3
7. ASSESSMENT OF IMPACT	4
8. RECOMMENDATIONS	4
9. REFERENCES	5
10. PROJECT TEAM	5
APPENDIX 1	6
APPENDIX 2	8
APPENDIX 3	25
APPENDIX 4	26

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1. AIMS OF THE SURVEY

The National Cultural History Museum was requested by **Walmsley Environmental Consultants** to survey a number of farms in the Highveld Ridge district. Sasol coal is planning to extent their mining operations in the area. The aim of the survey was to locate, identify, evaluate and document the sites, objects and structures of cultural importance found within the boundaries of the areas that is to be developed.

2. TERMS OF REFERENCE

The **Terms of Reference** for the study were to:

- 2.1 Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural resources) located in the area of the proposed development.
- 2.2 Assess the significance of the cultural resources in terms of their historical, social, religious, aesthetic and scientific value.
- 2.3 Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
- 2.4 Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources. This can include recommendations for the sustainable development and use of the identified cultural resources.
- 2.5 Develop procedures to be implemented if previously unidentified cultural resources are uncovered during the construction phase.

3. DEFINITIONS

The following aspects have a direct bearing on the survey and the resulting report:

- 3.1 **Cultural resource** is a broad, generic term covering any physical, natural and spiritual properties and features adapted, used and created by humans in the past and present. They can be, but are not necessarily identified with defined locations.

- 3.2 The **significance** of the sites and artifacts is determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. It must be kept in mind that the various aspects are not mutually exclusive, and that the evaluation of a site is done with reference to any number of these.
- 3.3 Significance is site-specific and relates to the content and context of the site. Sites regarded as having low significance have already been recorded in full and require no further mitigation. Sites with medium to high significance require further mitigation.
- 3.4 The latitude and longitude of an archaeological site are to be treated as sensitive information by the developer, and should not be disclosed to members of the public.
- 3.5 All recommendations are made with full cognisance of the relevant legislation, in this case the **National Monuments Act (No 28 of 1969, as amended)**.

4. METHODOLOGY

4.1 Preliminary investigation

4.1.1 Survey of the literature

A survey of the relevant literature was conducted with the aim of reviewing the previous research done and determining the potential of the area. In this regard, various anthropological, archaeological and historical sources were consulted - see list of references below.

4.1.2 Data sources

The **Archaeological Data Recording Centre (ADRC)**, housed at the National Cultural History Museum, Pretoria, was consulted.

4.1.3 Other sources

The topocadastral and other maps were also studied - see list of references below.

4.2 Field survey

The field survey was done according to generally accepted archaeological practices, and was aimed at locating all possible sites, objects and structures. The area was divided into blocks, making use of natural and human-made topographical elements. These blocks were then surveyed in detail by walking and driving across it. In each block, areas with a

potential for human use were investigated. Special attention was given to outcrops, cliffs were inspected for rock shelters, while stream beds and unnatural topographical occurrences such as trenches, holes and clusters of trees were investigated. In the case of the location of graves, information was in many cases also supplied by landowners.

4.3 Documentation

All sites, objects and structures identified were documented according to the general minimum standards accepted by the archaeological profession. Coordinates of individual localities were determined by means of the **Global Positioning System (GPS)**¹ and plotted on a map. This information was added to the description in order to facilitate the identification of each locality.

5. DESCRIPTION OF THE AREA

The area under investigation is situated north of the town of Trichardt, in the Highveld Ridge district of Mupmalanga. The topography of the area is mainly gently rolling highveld, with the most important geographical features the various streams crossing the area, such as the Trichhardspruit and Debeerspruit. The soil is mostly turf, which was not deemed suitable for settlement on by Iron Age people. Settlement usually took place on the various dolomite outcrops, which is also still largely the case. The current land use is mainly livestock and maize farming and very little of the original vegetation remains. The latter is classified as Themeda Veld or Turf Highveld, with no other species playing an important part (Acocks 1975:92).

6. DISCUSSION

Intensive settlement of the area under consideration took place only during the last few hundred years. Stone Age occupation seems to be totally lacking in the area. Only a few Middle Stone Age tools were identified in the various stream beds, but are viewed not to be in primary context as they could have been washed downstream.

No Early Iron Age sites were identified in the area, and it seems as if Early Iron Age people did not settle here. This is confirmed by Maggs (1984:199), who indicates that the preference these people had for selecting sites was savanna areas below 1000m.

¹ According to the manufacturer a certain deviation may be expected for each reading. Care was, however, taken to obtain as accurate a reading as possible, and then correlate it with reference to the physical environment before plotting it on the map.

Although the settlement also took place in the savanna areas during Late Iron Age times, during this period the people started to expand into the grassland areas as well (Maggs 1984:204). The identified sites would fall into this period.

The Late Iron Age sites found here conform with those identified by Maggs (1976) for the southern highveld area (southern Transvaal, northern Orange Free State) as Type V sites. These are known to occur as far north as Suikerbosrand and Pretoria, and from this line eastward. However, they have not yet been comprehensively surveyed in this latter area. They originated as part of the Sotho/Tswana settlement of the area and can be dated to the period 1600 - 1850.

As the soil is mostly turf Iron Age settlement usually took place on the various dolomite outcrops. The added benefit of choosing these locations was that it was located at the source of building material used in constructing the settlements.

A few farmsteads dating to early part of this century were identified. Some of these possibly have historical-architectural significance.

A number of abandoned homesteads are located in the areas that were investigated. These seem to belong to farm labourers and were all abandoned within the last few years. They are therefore not viewed to be of cultural or historical significance. However, some graves are located in the vicinity of some of these. It is also possible that more graves will be located close to the various existing homesteads.

Relocation of the graves becomes a matter of obtaining permission from descendants (directly), or by advertising in the newspapers about the pending move. This is followed by permission from the Department of Health of the relevant province, as well as permission from the premier of that province. A commercial firm of undertakers then relocates the graves to a mutually agreed site.

7. ASSESSMENT OF IMPACT

A large number and variety of sites were identified. Fortunately, as mining is mostly to take place below ground, the development would have NO or very LOW impact on the majority of the sites. It is only in the few cases where sites are located in areas that is to be strip mined, or where it is proposed to make the new shafts, that the impact would be HIGH. In this latter regard, the impact would be immediate. Suitable mitigation should therefore take place before any construction starts.

8. RECOMMENDATIONS

Based on what was found and its evaluation, it is recommended that the proposed development can continue, but only after suitable mitigation measures for the identified sites and structures are implemented. This consists of:

- 8.1 The relocation of all the graves, their contents and headstones, if they are to be impacted upon by the proposed development.
- 8.2 The archaeological investigation and documentation of the different Late Iron Age sites, especially those that are located in the areas where the shafts are to be made.
- 8.3 The documentation of the various farmsteads, if they are to be impacted upon by the development.
- 8.4 The developers should be notified that archaeological sites might be exposed during the construction work. If anything is noticed, it should be reported immediately to a museum, preferably one at which an archaeologist is available, so that an investigation and evaluation of the finds can be made.

9. REFERENCES

Acocks, J.P.H. 1975. *Veld types of South Africa*. Memoirs of the Botanical Survey of South Africa, No. 40. Pretoria: Botanical Research Institute.

Holm, S.E. 1966. *Bibliography of South African Pre- and Protohistoric archaeology*. Pretoria: J.L. van Schaik.

Maggs, T.M.O'C. 1976. **Iron Age communities of the Southern Highveld**. Occasional Publications of the Natal Museum, No. 2. Pietermaritzburg: Natal Museum.

Maggs, T. 1984 Iron Age settlement and subsistence patterns in the Tugela River basin, Natal. In Hall, M., Avery, G., Avery, D.M., Wilson, M.L. & Humphreys, A.J.B. (eds.) *Frontiers: Southern African Archaeology Today*. BAR International Series 207. Pp. 194-206.

Van Warmelo, N.J. 1977. *Anthropology of Southern Africa in Periodicals to 1950*. Pretoria: Government Printer.

10. PROJECT TEAM

J van Schalkwyk - principal investigator

APPENDIX 1: STANDARDIZED SET OF CONVENTIONS USED TO ASSESS THE IMPACT OF PROJECTS ON CULTURAL RESOURCES

Significance of impact:

- high where it would have a "no-go" implication on the project regardless of any mitigation
- moderate where the impact could have an influence which will require modification of the project design or alternative mitigation
- low where the impact will not have an influence on or require to be significantly accommodated in the project design
- no impact where there is no impact at all

Spatial scale

- international
- national
- regional
- 5 km radius
- 2 km radius
- mining area

Time scale

- long term (more than 20 years)
- medium term (6-20 years)
- short term (0-5 years)

Degree of certainty:

- Definite: More than 90% sure of a particular fact. Substantial supportive data to verify assessment
- Probable: More than 70% sure of a particular fact, or of the likelihood of that impact occurring
- Possible: Only more than 40% sure of a particular fact, or of the likelihood of an impact occurring
- Unsure: Less than 40% sure of a particular fact, or the likelihood of an impact occurring

Status of the impact:

With mitigation and the resultant recovery of material, a negative impact can be turned positive. Describe whether the impact is positive (a benefit), negative (a cost) or neutral

Recommended management action:

For each impact, the recommended practically attainable mitigation actions which would result in a measurable reduction of the impact, must be identified. This is expressed according to the following:

- 1 = no further investigation/action necessary
- 2 = controlled sampling and/or mapping of the site necessary

- 3 = test excavation and/or mapping
- 4 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary
- 5 = preserve site at all costs

Legal requirements:

Identify and list the specific legislation and permit requirements which potentially could be infringed upon by the proposed project, if mitigation is necessary.

APPENDIX 2: SURVEY RESULTS²

[Previous site numbers relate to other known sites on a particular ¼ degree sheet already documented in the ADRC, and does not necessarily refer to sites occurring on or close to the specific area of development.]

1. Site number: 2629AC3

Location: Tweedraai 139IS: S 26°26'49.2"; E 29°12'51.2" [X 2926138.792; Y - 21366.195]

Description: Informal cemetery containing ± 10 graves, of which 3 have headstones. Inscriptions are basically illegible. Might be related to no. 2 below.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: If relocation is necessary: permits and notification

2. Site number: 2629AC4

Location: Tweedraai 139IS: S 26°26'49.4"; E 29°12'57.2" [X 2926145.224; Y - 21532.415]

Description: Ruins of old structure, possibly homestead. Might be related to no. 1 above.

Discussion: Very little remains of this structure and it would produce little information of significance.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

3. Site number: 2629AC5

Location: Spandow 121IS: S 26°25'23.2"; E 29°10'53.9" [X 2923487.180; Y -18120.126]

Description: Informal cemetery, containing ± 50 graves, identified by small cairns.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

² See Appendix 1 for an explanation of the conventions used in assessing the cultural remains.

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: If relocation is necessary: permits and notification

4. Site number: 2629AC6

Location: Zwakfontein 120IS: S 26°22'38.9"; E 29°11'31.2" [X 2918432.442; Y - 19161.273]

Description: Informal cemetery, containing \pm 20 graves, identified by small cairns.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: If relocation is necessary: permits and notification

5. Site number: 2629AC7

Location: Zwakfontein 120IS: S 26°22'39.9"; E 29°11'33.3" [X 2918463.303; Y - 19219.442]

Description: Number of privit (?) trees planted in rectangular format.

Discussion: This probably was an old cattle kraal.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

6. Site number: 2629AC8

Location: Zwakfontein 120IS: S 26°22'30.8"; E 29°11'30.7" [X 2918183.150; Y - 19147.782]

Description: Old rubbish dump. One of a number in the vicinity.

Discussion: These features most likely date the middle part of the century and can probably be related to the features identified in no. 4 & 5 above.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

7. Site number: 2629AC9

Location: Riversdale 119IS: S 26°22'23.9"; E 29°13'13.5" [X 2917975.362; Y - 21997.988]

Description: Informal cemetery, containing \pm 60 graves, some with headstones. It is located quite close to an old farmstead.

Discussion: The farmstead is of recent origin and not of any significance. This area is to be strip mined and the graves will have to be relocated.

Significance of impact: High
Degree of certainty: Definite
Status of impact: Negative
Recommended management action: Relocation of graves
Legal requirements: Permits and notification

8. Site number: 2629AC10

Location: Riversdale 119IS: S 26°22'18.5"; E 29°13'19.6" [X 2917809.471; Y - 22167.382]

Description: Informal cemetery, containing \pm 10 graves, marked with cairns.

Discussion: Some uncertainty exists if these are really graves. This area is to be strip mined and if these features are graves, they will have to be relocated.

Significance of impact: High
Degree of certainty: Probable
Status of impact: Negative
Recommended management action: Relocation of graves
Legal requirements: Permits and notification

9. Site number: 2629AC11

Location: Syferfontein 115IS: S 26°24'35.4"; E 29°14'50.8" [X 2922027.094; Y - 24687.631]

Description: Informal cemetery, containing \pm 5 graves, one with a headstone.

Discussion: This area is to be strip mined and the graves will have to be relocated.

Significance of impact: High
Degree of certainty: Definite
Status of impact: Negative
Recommended management action: Relocation of graves
Legal requirements: Permits and notification

10. Site number: 2629AC12

Location: Zwakfontein 120IS: S 26°23'50.4"; E 29°11'52.3" [X 2920633.698; Y - 19745.595]

Description: Three, possibly more, graves (le Roux) with headstones in a formal cemetery.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low
Degree of certainty: Definite
Status of impact: Neutral
Recommended management action: 1 = no further investigation/action necessary
Legal requirements: If relocation is necessary: permits and notification

11. Site number: 2629AC13

Location: Zwakfontein 120IS: S 26°23'10.7"; E 29°11'56.8" [X 2919412.143; Y - 19869.436]

Description: Informal cemetery, containing \pm 25 graves marked with cairns.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: If relocation is necessary: permits and notification

12. Site number: 2629AC14

Location: Zwakfontein 120IS: S 26°23'27.0"; E 29°10'58.4" [X 2919911.366; Y - 18249.902]

Description: Rudimentary stone walling amongst outcrop of dolerite. Rubbish dumps occur in the area. This site probably dates to the turn of the century and originated as farm labourers houses. It also might date to the Late Iron Age, but without further investigation it is difficult to confirm.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: NMC permit

13. Site number: 2629AC15

Location: Zwakfontein 120IS: S 26°23'26.4"; E 29°11'43.8" [X 2919894.749; Y - 19508.349]

Description: Informal cemetery, containing \pm 25 graves marked with cairns and brick and cement structures.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: If relocation is necessary: permits and notification

14. Site number: 2629AC16

Location: Zwakfontein 120IS: S 26°22'56.8"; E 29°11'57.1" [X 2918984.392; Y - 19878.413]

Description: Formal cemetery, containing \pm 6 graves (Smit & Zietsman).

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: If relocation is necessary: permits and notification

15. Site number: 2629AC17

Location: Tweedraai 139IS: S 26°26'41.7"; E 29°13'16.8" [X 2925909.182; Y - 22075.841]

Description: Possible graves, marked by cairns.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: If relocation is necessary: permits and notification

16. Site number: 2629AC18

Location: Tweedraai 139IS: S 26°27'09.2"; E 29°13'18.8" [X 2926749.436; Y -22135.344]

Description: Remains of old farmstead. Possibility of graves in the area.

Discussion: Very little remains of this structure and it would produce little information of significance.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: If relocation is necessary: permits and notification

17. Site number: 2629AC19

Location: Tweedraai 139IS: S 26°26'43.0"; E 29°14'04.9" [X 2925951.556; Y - 23411.174]

Description: Informal cemetery with ± 80 graves. Most are marked with cairns and 8 have headstones.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: If relocation is necessary: permits and notification

18. Site number: 2629AD3

Location: Syferfontein 115IS: S 26°24'26.8"; E 29°15'49.7" [X 2921765.673; Y - 26320.520]

Description: Old farmstead. House is built of corrugated iron. Also outbuildings and garden and orchards.

Discussion: This structure seems to be older than 50 years and is therefore protected by the Monuments Act. It is located in the area of one of the possible shafts and will therefore be impacted upon by the development.

Significance of impact: High

Degree of certainty: Definite

Status of impact: Negative

Recommended management action: 3 = test excavation and/or mapping

Legal requirements: NMC permit

19. Site number: 2629AD4

Location: Van Schalkwyksrust 118IS: S 26°23'47.5"; E 29°15'27.1" [X 2920554.967; Y - 25696.591]

Description: Informal cemetery consisting of ± 7 graves, mostly of the Cilliers family. This feature is most probably related to no. 17 below.

Discussion: Some of the headstones are older than 50 years. Place is unkempt. This feature is actually located just outside the mining areas and will not be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

20. Site number: 2629AD5

Location: Syferfontein 115IS: S 26°23'44.8"; E 29°15'23.1" [X 2920471.655; Y - 25585.888]

Description: Ruins of old structure, possibly farmstead. This feature is most probably related to no. 19 above.

Discussion: Very little information would be recovered from this site. This feature is actually located just outside the mining areas and will not be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

21. Site number: 2629AD6

Location: Holfontein 149IS: S 26°24'40.9"; E 29°19'18.0" [X 2922212.713; Y - 32092.343]

Description: Formal cemetery containing ± 10 graves with headstones, mostly of the Erasmus family. Place is still in use and is well kept.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: If relocation is necessary: permits and notification

22. Site number: 2629AD7

Location: Syferfontein 115IS: S 26°24'49.3"; E 29°15'12.5" [X 2922456.030; Y - 25288.180]

Description: Formal cemetery containing ± 100 graves, some with headstones. Most of these graves were relocated during development by Sasol Mining in recent times.

Discussion: This area is to be strip mined, but it is doubtful if this will be done after the graves were relocated to this area.

Significance of impact: Low

Degree of certainty: Possible

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: If relocation is necessary: permits and notification

23. Site number: 2629AD8

Location: Frischgewaagd 142IS: S 26°26'51.6"; E 29°16'07.6" [X 2926222.866; Y - 26807.304]

Description: One grave with headstone and inscription dating to 1928. This feature is located amongst circular stone structures possibly dating to the Late Iron Age. The LIA walling probably dates to the last 200 years and can possibly be related to the Sotho/Tswana speaking people.

Discussion: This site is located close to the area of one of the possible shafts and will therefore be impacted upon by the development.

Significance of impact: High

Degree of certainty: Definite

Status of impact: Negative

Recommended management action: 3 = test excavation and/or mapping

Legal requirements: NMC permit

24. Site number: 2629AD9

Location: Frischgewaagd 142IS: S 26°26'51.2"; E 29°16'12.5" [X 2926204.685; Y - 26943.097]

Description: Four graves marked with cairns. Just east of that, there are a number of circular stone structures that might be the foundations of old houses. These probably date to the early part of the century and can be related to the graves.

Discussion: This site is located close to the area of one of the possible shafts and will therefore be impacted upon by the development.

Significance of impact: High

Degree of certainty: Definite

Status of impact: Negative

Recommended management action: Relocation of graves; 3 = test excavation and/or mapping.

Legal requirements: If relocation is necessary: permits and notification

25. Site number: 2629AD10

Location: Frischgewaagd 142IS: S 26°26'45.5"; E 29°16'22.9" [X 2926036.032; Y - 27231.586]

Description: Circular structures of stone. Possibly the foundations of houses dating to the middle part of this century.

Discussion: This site is located close to the area of one of the possible shafts and will therefore be impacted upon by the development.

Significance of impact: High

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

26. Site number: 2629AD11

Location: Frischgewaagd 142IS: S 26°26'28.0"; E 29°16'30.6" [X 2925497.929; Y - 27446.068]

Description: Informal cemetery containing ± 50 graves, of which 5 have headstones.

Discussion: This site is located close to the area of one of the possible shafts and will therefore be impacted upon by the development.

Significance of impact: High

Degree of certainty: Definite

Status of impact: Negative

Recommended management action: Relocation of graves

Legal requirements: If relocation is necessary: permits and notification

27. Site number: 2629AD12

Location: Frischgewaagd 142IS: S 26°26'34.4"; E 29°16'32.7" [X 2925695.012; Y - 27503.830]

Description: Circular structures of stone. Possibly the foundations of houses dating to the middle part of this century. These can probably be related to the graves in no. 26 above.

Discussion: This site is located close to the area of one of the possible shafts and will therefore be impacted upon by the development.

Significance of impact: High

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

28. Site number: 2629AD13

Location: Frischgewaagd 142IS: S 26°26'44.2"; E 29°16'14.8" [X 2925995.551; Y - 27007.258]

Description: Circular structures of stone, typical of Late Iron Age structures. The LIA walling probably dates to the last 200 years and can possibly be related to the Sotho/Tswana speaking people.

Discussion: This site is located close to the area of one of the possible shafts and will

therefore be impacted upon by the development.

Significance of impact: High

Degree of certainty: Definite

Status of impact: Negative

Recommended management action: 3 = test excavation and/or mapping

Legal requirements: NMC permit

29. Site number: 2629AD14

Location: Frischgewaagd 142IS: S 26°26'57.8"; E 29°15'40.5" [X 2926405.967; Y - 26056.129]

Description: Circular structures of stone, typical of Late Iron Age structures. The LIA walling probably dates to the last 200 years and can possibly be related to the Sotho/Tswana speaking people.

Discussion: This site is located close to the area of one of the possible shafts and will therefore be impacted upon by the development.

Significance of impact: High

Degree of certainty: Definite

Status of impact: Negative

Recommended management action: 3 = test excavation and/or mapping

Legal requirements: NMC permit

30. Site number: 2629AD15

Location: Frischgewaagd 142IS: S 26°27'09.2"; E 29°15'39.7" [X 2926756.754; Y - 26033.253]

Description: Old homestead, with a number of other structures, possibly labourer houses, in the vicinity. Not much information would be gained from this structure.

Discussion: This site is located close to the area of one of the possible shafts and will therefore be impacted upon by the development.

Significance of impact: High

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

31. Site number: 2629AD16

Location: Frischgewaagd 142IS: S 26°26'42.7"; E 29°15'47.1" [X 2925947.791; Y - 26237.145]

Description: Circular structures of stone, typical of Late Iron Age structures. The LIA walling probably dates to the last 200 years and can possibly be related to the Sotho/Tswana speaking people.

Discussion: This site is located close to the area of one of the possible shafts and will therefore be impacted upon by the development.

Significance of impact: High

Degree of certainty: Definite

Status of impact: Negative

Recommended management action: 3 = test excavation and/or mapping

Legal requirements: NMC permit

32. Site number: 2629AD17

Location: Frischgewaagd 142IS: S 26°26'21.9"; E 29°15'25.0" [X 2925306.446; Y - 25628.904]

Description: An old farmstead consisting of a house built partly of corrugated iron and outbuildings. Two sets of graves are located close by, one to the south (2 graves) and the other to the west (3 graves) of the house.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

33. Site number: 2629AD18

Location: Frischgewaagd 142IS: S 26°26'19.6"; E 29°15'20.6" [X 2925235.421; Y - 25507.135]

Description: Two graves located close to the cattle dip.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

34. Site number: 2629AD19

Location: Frischgewaagd 142IS: S 26°25'49.9"; E 29°15'46.7" [X 2924322.871; Y - 26232.154]

Description: Circular structures of stone, dating to the Late Iron Age. Some ash heaps also occurs. The LIA walling probably dates to the last 200 years and can possibly be related to the Sotho/Tswana speaking people.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

35. Site number: 2629AD20

Location: Klipkraal 114IS: S 26°25'13.7"; E 29°17'00.9" [X 2923213.194; Y -28290.608]

Description: Informal cemetery with \pm 50 graves. Of these, 5 have headstones and 15 are marked with cement.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

36. Site number: 2629AD21

Location: Klipkraal 114IS: S 26°25'30.3"; E 29°17'25.3" [X 2923714.405; Y -28965.126]

Description: Grave, marked with cement, located south of the farmstead.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

37. Site number: 2629AD22

Location: Frischgewaagd 142IS: S 26°25'37.4"; E 29°16'49.8" [X 2923941.879; Y -27981.424]

Description: Two graves marked with cairns. Approximately 50 m to the north there are the remains of labourer houses that can possibly be related to the graves.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

38. Site number: 2629AD23

Location: Klipkraal 114IS: S 26°25'14.5"; E 29°17'26.0" [X 2923239.364; Y -28986.106]

Description: Informal cemetery containing \pm 20 graves marked with cairns.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

39. Site number: 2629AD24

Location: Klipraal 114IS: S 26°24'03.1"; E 29°18'12.4" [X 2921041.944; Y -30277.090]

Description: Informal cemetery containing \pm 50 graves marked with cairns. One have a headstone.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

40. Site number: 2629AD25

Location: Klipkraal 114IS: S 26°23'43.6"; E 29°18'22.4" [X 2920445.573; Y -30555.668]

Description: Informal cemetery containing \pm 5 graves marked with bricks and cement.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

41. Site number: 2629AD26

Location: Klipkraal 114IS: S 26°23'36.8"; E 29°18'15.9" [X 2920235.880; Y -30376.000]

Description: Old farmstead with outbuildings. These structure seems to be older than 50 years and are therefore protected by National Monuments Act.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

42. Site number: 2629AD27

Location: Klipkraal 114IS: S 26°24'19.1"; E 29°18'15.5" [X 2921534.540; Y -30361.847]

Description: Informal cemetery containing \pm 100 located in a poplar-grove. Most are marked by cairns.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

43. Site number: 2629AD28

Location: Klipkraal 114IS: S 26°23'33.2"; E 29°17'43.9" [X 2920116.872; Y -29489.302]

Description: A single grave, marked with a slab of cement, amongst some bluegum trees.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

44. Site number: 2629AD29

Location: Klipkraal 114IS: S 26°23'53.2"; E 29°17'08.8" [X 2920730.169; Y -28515.037]

Description: Informal cemetery, containing \pm 10 graves marked with cairns. Two have headstones.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

45. Site number: 2629AD30

Location: Klipkraal 114IS: S 26°23'52.5"; E 29°17'01.4" [X 2920714.328; Y -28309.968]

Description: Two cairns of stones, possibly indicating graves.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

46. Site number: 2629AD31

Location: Klipkraal 114IS: S 26°24'14.8"; E 29°16'36.8" [X2921399.117; Y -27626.663]

Description: Informal cemetery, containing \pm 15 graves, of which 5 have headstones. Just upslope of this there are remains of stone structures and rubbish dumps. This is most probably the remains of old labourer houses and possibly dates to the early part of this century.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

47. Site number: 2629AD32

Location: Weltevreden 116IS: S 26°23'49.4"; E 29°16'29.3" [X 2920604.672; Y - 27412.177]

Description: Informal cemetery containing \pm 40 graves marked with cairns. Three have headstones.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

48. Site number: 2629AD33

Location: Holfontein 149IS: S 26°24'33.6"; E 29°18'50.3" [X 2921986.164; Y - 31325.229]

Description: Informal cemetery containing \pm 80 graves marked with cairns.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

49. Site number: 2629AD34

Location: Holfontein 149IS: S 26°24'45.6"; E 29°18'14.9" [X 2922353.106; Y - 30343.285]

Description: Informal cemetery containing \pm 20 graves marked with cairns.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

50. Site number: 2629AD35

Location: Trichardtsfontein 140IS: S 26°28'17.2"; E 29°14'43.1" [X 2928846.346; Y - 24458.463]

Description: Informal cemetery (although part of an old fence is still in place) containing \pm 4 graves marked with cairns.

Discussion: This site actually falls just outside the area that will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

51. Site number: 2629AD36

Location: Zeekoegat 141IS: S 26°27'56.1"; E 29°18'56.0" [X 2928215.362; Y - 31467.926]

Description: Informal cemetery with ± 5 graves. One of these have a headstone dating to 1980.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

52. Site number: 2629AD37

Location: Zeekoegat 141IS: S 26°27'09.3"; E 29°19'29.3" [X 2926771.219; Y - 32385.693]

Description: Concentration of rocks that include a lower grinding stone.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

53. Site number: 2629AD38

Location: Zeekoegat 141IS: S 26°28'11.2"; E 29°20'10.4" [X 2928682.210; Y - 33527.631]

Description: Remains of houses occupied by farm labourers.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

54. Site number: 2629AD39

Location: Zeekoegat 141IS: S 26°28'04.8"; E 29°18'30.4" [X 2928484.459; Y - 30758.144]

Description: One grave with headstone, with low wall of stone built around it.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

55. Site number: 2629AD40

Location: Zeekoegat 141IS: S 26°28'05.2"; E 29°18'24.1" [X 2928490.190; Y - 30580.850]

Description: Remains of houses occupied by farm labourers.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

56. Site number: 2629AD41

Location: Frischgewaagd 142IS: S 26°27'28.4"; E 29°15'59.9" [X 2927354.932; Y - 26591.630]

Description: Circular structures of stone dating to Late Iron Age.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

57. Site number: 2629AD42

Location: Frischgewaagd 142IS: S 26°27'23.4"; E 29°16'34.7" [X 2927200.016; Y - 27556.009]

Description: Informal cemetery with ± 5 graves, one of which have a headstone.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

58. Site number: 2629AD43

Location: Frischgewaagd 142IS: S 26°27'26.0"; E 29°16'42.5" [X 2927283.574; Y - 27771.910]

Description: Old farmstead with outbuildings. Currently occupied by farm labourers. It seems to be older than 50 years and is therefore protected by the National Monuments Act.

Discussion: As mining is to take place below ground in this area, it is doubtful if this feature will be impacted upon.

Significance of impact: Low

Degree of certainty: Definite

Status of impact: Neutral

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

APPENDIX 3: GLOSSARY AND ABBREVIATIONS

This section is included to give the reader some necessary background. It must be kept in mind, however, that these dates are all relative and serve only to give a very broad framework for interpretation.

STONE AGE

Early Stone Age (ESA)	2 000 000 - 150 000 Before Present
Middle Stone Age (MSA)	150 000 - 30 000 BP
Late Stone Age (LSA)	30 000 - until c. AD 200

IRON AGE

Early Iron Age (EIA)	AD 200 - AD 1000
Late Iron Age (LIA)	AD 1000 - AD 1830

HISTORICAL PERIOD

Since the arrival of the white settlers - c. AD 1830 in this part of the country

National Monuments Council (NMC)

