

**A SURVEY OF CULTURAL RESOURCES IN THE
PROPOSED MINING AREA ON THE FARM
HOEKFONTEIN 432JQ, ODI 1 DISTRICT**

For:

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SUMMARY

A survey of cultural resources for the proposed mining area on the farm Hoekfontein 432JQ, Odi 1 District.

The aim of the survey was to locate, identify, evaluate and document sites, objects and structures of cultural importance found within the boundaries of the area in which the proposed development is to take place.

A large number of archaeological sites occur in the area. It is therefore recommended, in section 7 of this report, that

- Development can only continue if suitable mitigation measures are applied to the various archaeological sites. Prospecting activities (middle August) have already damaged a Late Iron Age site. This situation is not acceptable and should be condemned.
- 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.
- A lot of local people are using the area for resources such as fire wood, hunting game, collecting herbs and using the area for grazing of their cattle. Their activities should be acknowledged and compensated for if necessary.
- Religious groups of diverse origin use the mountain in religious activities. These activities should be acknowledged and considered during mining activities.

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1. AIMS OF THE SURVEY

The National Cultural History Museum was requested by **Ekokonsult** to survey an area in which it is planned to quarry norite. This area is located on the farm Hoekfontein 432JQ, east of Brits in the Odi 1 district of North West Province. The aim of the survey was to locate, identify, evaluate and document 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 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 subdivided into an imaginary grid, using the most obvious topographical features such as valleys and ridges. Each block of the grid was then surveyed for the potential for human use. 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.

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 surveyed is located on a section of the farm Hoekfontein 432JQ in the Odi 1 district of North-West Province. The area features a small mountain range and has a very broken topography. The geology is made up of gabbro, hyperite and norite of the Bushveld Igneous Complex. Some syenite, gabbro and diabase dykes occur sporadically in the area.

The vegetation of the study area is classified by Acocks (1978:48-49) as Sourish Mixed Bushveld. This is a rather open savanna with **Acacia caffra** the dominant tree, in a fairly tall and dense grassveld dominated by **Cymbopogon**, **Hyparrhenia** and **Themada**.

6. DISCUSSION

6.1 Stone Age

Stone Age tools were found to occur throughout the area. These are mostly Middle Stone Age in origin and occur without exception as surface material and as such they are considered to be disturbed out of context. These objects and sites are therefore

judged not to pose any obstacle to the proposed development.

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.

One small shelter containing rock paintings of approximately 6 animals and one human figure was discovered. Unfortunately, the paintings are very faded and not much can be seen. This site, however, is in danger of being impacted by the proposed development and appropriate mitigation measures should be taken.

6.2 Iron Age

Stone walled sites dating to the Late Iron Age, were identified throughout the area. Some of these are judged to be insignificant. However, a few are quite extensive and show stone walling, terracing, pottery, slag and faunal remains as surface indicators. The sites are mostly located on the saddle of the various valleys or in valleys self, on the east facing slopes, although exceptions do occur. The size of the sites in this latter category might be an indication of their importance. Agricultural terracing usually occur lower down in the valleys.

These sites form part of the Tswana settlement of the larger geographical area and they can probably be linked with other sites not located in the area under consideration, eg. Van Schalkwyk (1994) and Pistorius & Steyn (1995). They date most probably to within the last 300 years and might still have emotional and historical significance to current Tswana communities. They were most probably abandoned with the arrival of the Ndebele of Mzilikazi during the early part of the 19th century.

Without detailed mapping, it is difficult to establish the relationship of each site to the next. It is postulated that they are mostly contemporary and could have functioned as different wards, ruled by a headman for each of the larger complexes.

The sites were probably abandoned early in the 19th century.

6.3 Historic

A few structures that might date to historical times were identified. All of these, however, are also located within some of the Iron Age sites and as such are treated as part of the larger complex.

7. RECOMMENDATIONS

A large number of archaeological sites occur in the area. It is therefore recommended that:

- Development can only continue only if suitable mitigation measures are applied

to the various archaeological sites. Prospecting activities (middle August) have already damaged a Late Iron Age site. This situation is not acceptable and should be condemned.

- 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.

In addition

- A lot of local people are using the area for resources such as fire wood, hunting game, collecting herbs and using the area for grazing of their cattle. Their activities should be acknowledged and compensated for if necessary.
- Religious groups of diverse origin use the mountain in religious activities. These activities should be acknowledged and considered during mining activities.

8. REFERENCES

8.1 Unpublished sources

8.1.1 Data base

Archaeological Data Recording Centre, (former) Tvl section, National Cultural History Museum, Pretoria.

8.2 Published sources

8.2.1 Books and journals

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

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Rasmussen, R.K. 1978. **Migrant kingdom: Mzilikazi's Ndebele in South Africa**. London: Rex Collins.

Van Riet Lowe, C. n.d. **The distribution of Prehistoric rock engravings and paintings in South Africa**. Archaeological Survey, Archaeological Series No. 7.

Van Schalkwyk, J.A. 1994. **A survey of cultural resources in the Akasia Municipal area**. Unpublished report. Pretoria: National Cultural History Museum.

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

8.2.2 Maps

1: 50 000 Topocadastral maps - 2527DB

9. PROJECT TEAM

J van Schalkwyk

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

Significance of impact:

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

Certainty of prediction:

- 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 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary
- 4 = 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: 2527DB18

Location: Hoekfontein 432JQ: S 25°35'31.0"; E 27°55'40.1"

Description: Extensive site with circular stone walling. Lots of pottery occurs on the site. A rectangular structure built with bricks, also occurs.

Discussion: The site probably have a multi-component habitation, with the stone walling dating to the Late Iron Age and the rectangular structure dating to recent times.

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: NMC Permit

2. Site number: 2527DB19

Location: Hoekfontein 432JQ: S 25°35'39.3"; E 27°55'41.9"

Description: Rudimentary stone walling, dating probably to the Late Iron Age. No other context can be seen.

Discussion: This probably forms part of a larger complex.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

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

Legal requirements: None

3. Site number: 2527DB20

Location: Hoekfontein 432JQ: S 25°35'44.6"; E 27°55'36.1"

Description: Rudimentary stone walling, dating probably to the Late Iron Age. No other context can be seen.

Discussion: This probably forms part of a larger complex.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

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

Legal requirements: None

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

4. Site number: 2527DB21

Location: Hoekfontein 432JQ: S 25°36'05.5"; E 27°55'41.8"

Description: Rudimentary stone walling, dating probably to the Late Iron Age. No other context can be seen.

Discussion: This probably forms part of a larger complex.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

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

Legal requirements: None

5. Site number: 2527DB22

Location: Hoekfontein 432JQ: S 25°36'04.1"; E 27°55'48.2"

Description: Rudimentary stone walling, dating possibly to the Late Iron Age. This is possibly a large cattle kraal.

Discussion: Might be linked to the next site.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: NMC Permit

6. Site number: 2527DB23

Location: Hoekfontein 432JQ: S 25°35'54.7"; E 27°55'52.5"

Description: Stone walling dating possibly to the Late Iron Age.

Discussion: Might be linked to the previous site.

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: NMC permit

7. Site number: 2527DB24

Location: Hoekfontein 432JQ: S 25°36'06.7"; E 27°56'02.0"

Description: Circular walls of stones, dating possibly to the Late Iron Age.

Discussion: Might still be part of the complex indicated under the previous two numbers.

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: NMC permit

8. Site number: 2527DB25Location: Hoekfontein 432JQ: S 25°35'47.4"; E 27°56'13.0"Description: Circular walls of stones, some as high as 1,5 metres, dating possibly to the Late Iron Age.Discussion: Similar to most of the sites in the areaSignificance of impact: MediumCertainty of prediction: DefiniteStatus of impact: NegativeRecommended management action: 2 = controlled sampling and/or mapping of the site necessaryLegal requirements: NMC permit9. Site number: 2527DB26Location: Hoekfontein 432JQ: S 25°35'50.4"; E 27°56'16.5"Description: Stone walling in the form of terracing.Discussion: Possibly part of the previous number.Significance of impact: MediumCertainty of prediction: DefiniteStatus of impact: NegativeRecommended management action: 2 = controlled sampling and/or mapping of the site necessaryLegal requirements: NMC permit10. Site number: 2527DB27Location: Hoekfontein 432JQ: S 25°35'52.2"; E 27°56'22.9"Description: Stone walling in the form of terracing.Discussion: Possibly part of the previous two sites.Significance of impact: MediumCertainty of prediction: DefiniteStatus of impact: NegativeRecommended management action: 2 = controlled sampling and/or mapping of the site necessaryLegal requirements: NMC permit11. Site number: 2527DB28Location: Hoekfontein 432JQ: S 25°35'56.4"; E 27°56'24.6"Description: Circular stone walls, some forming terracing, dating to the LIA. This is confirmed by the occurrence of pottery and iron slag. Some MSA artefacts also occur.Discussion: Possibly part of the previous two sites.Significance of impact: MediumCertainty of prediction: DefiniteStatus of impact: NegativeRecommended management action: 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessaryLegal requirements: NMC permit

12. Site number: 2527DB29

Location: Hoekfontein 432JQ: S 25°36'02.2"; E 27°56'32.5"

Description: Circular stone walls, dating possibly to the LIA.

Discussion: Might still be part of the previous site.

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary

Legal requirements: NMC permit

13. Site number: 2527DB30

Location: Hoekfontein 432JQ: S 25°36'02.0"; E 27°56'36.7"

Description: Circular stone walls, dating possibly to the LIA.

Discussion: Might still be part of the previous site.

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary

Legal requirements: NMC permit

14. Site number: 2527DB31

Location: Hoekfontein 432JQ: S 25°36'03.9"; E 27°56'40.8"

Description: Circular walls of stone, some as high as 1,5 metres. Large quantities of potsherds in the area.

Discussion: Might be the main section of a much larger site.

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary

Legal requirements: NMC permit

15. Site number: 2527DB32

Location: Hoekfontein 432JQ: S 25°35'53.3"; E 27°56'45.4"

Description: Low stone wall forming terracing. Some pottery.

Discussion: Can possibly be related to the previous site.

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: NMC permit

16. Site number: 2527DB33

Location: Hoekfontein 432JQ: S 25°35'36.3"; E 27°56'43.1"

Description: Stone walls forming terracing on the basal contour of the mountain, possibly dating to the LIA.

Discussion: These walls are not as well defined as others in the area.

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: NMC permit

17. Site number: 2527DB34

Location: Hoekfontein 432JQ: S 25°35'34.5"; E 27°56'41.1"

Description: Site with potsherds and hut dagha on the basal contour of the mountain. The decorations on the potsherds (comb stamping) is typical of the LIA in the area. Some rudimentary stone walling in the vicinity.

Discussion:

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary

Legal requirements: NMC permit

18. Site number: 2527DB35

Location: Hoekfontein 432JQ: S 25°35'34.7"; E 27°56'38.9"

Description: Recent structure built of cement and and stone. It is located amongst circular stone walling on the basal contour of the mountain.

Discussion: This might be a multi-component site.

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: NMC permit

19. Site number: 2527DB36

Location: Hoekfontein 432JQ: S 25°35'35.4"; E 27°56'30.8"

Description: Low, circular stone walls of uncertain dating.

Discussion: The walling here seems to be of poor quality

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Negative

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

Legal requirements: None

20. Site number: 2527DB37

Location: Hoekfontein 432JQ: S 25°35'35.9"; E 27°56'27.7"

Description: Low, circular walls of stone, dating probably to the Late Iron Age.

Discussion: Might be part of a larger complex.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Negative

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

Legal requirements: None

21. Site number: 2527DB38

Location: Hoekfontein 432JQ: S 25°35'30.4"; E 27°56'11.9"

Description: Circular walls of stone, dating to the Late Iron Age.

Discussion: This might be part of a larger complex

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Negative

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

Legal requirements: None

22. Site number: 2527DB39

Location: Hoekfontein 432JQ: S 25°35'35.0"; E 27°56'00.4"

Description: Very rudimentary walls of stone, of uncertain dating.

Discussion: This might be part of a larger complex

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Negative

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

Legal requirements: None

23. Site number: 2527DB40

Location: Hoekfontein 432JQ: S 25°35'52.3"; E 27°56'15.3"

Description: Circular walls of stone, as well as terracing

Discussion: Might form part of a larger complex

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: NMC permit

24. Site number: 2527DB41

Location: Hoekfontein 432JQ: S 25°35'39.9"; E 27°56'19.6"

Description: MSA material as well as LIA pottery

Discussion: Road for prospecting was made through this site.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: NMC permit

25. Site number: 2527DB42

Location: Hoekfontein 432JQ: S 25°35'50.5"; E 27°56'31.2"

Description: Small shelter containing some San rock paintings

Discussion: The paintings are very weathered and not of good quality any more. It is, however, one of the few rock art sites in the area, which make it very important.

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 3 = preserve site if possible, otherwise extensive salvage excavation

Legal requirements: NMC permit

26. Site number: 2527DB43

Location: Hoekfontein 432JQ: S 25°35'57.2"; E 27°56'28.4"

Description: Terracing and circular structures of stone

Discussion: Forms part of a big settlement spread out over the top part of the valley

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: NMC permit

27. Site number: 2527DB44

Location: Hoekfontein 432JQ: S 25°35'45.4"; E 27°56'35.7"

Description: Circular structures and terracing of stone on the slope and basal contour of the mountain.

Discussion: Probably part of the previous site

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: NMC permit

28. Site number: 2527DB45

Location: Hoekfontein 432JQ: S 25°35'46.8"; E 27°56'52.9"

Description: Terracing of stone on the basal contour of the mountain.

Discussion: Probably part of the next site

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: NMC permit

29. Site number: 2527DB46

Location: Hoekfontein 432JQ: S 25°35'52.5"; E 27°57'01.9"

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

Discussion: Living site, probably related to the previous site

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: NMC permit

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 1840 in this part of the country

National Monuments Council (NMC)

30. Site number: 2527DB47

Location: Hoekfontein 432JQ: S 25°36'09.2" E 27°57'08.8"

Description: Circular walls of stone as well as terracing, located at the head of a valley.

Discussion: Possibly part of the terracing lower down in the valley

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: NMC permit

31. Site number: 2527DB48

Location: Hoekfontein 432JQ: S 25°36'05.3" E 27°57'21.7"

Description: Small circular structure of stone situated on a prominent hill top. This might be a sentry post of some kind.

Discussion: No other structures or feature can directly be associated with this structure.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: NMC permit

32. Site number: 2527DB49

Location: Hoekfontein 432JQ: S 25°35'58.4" E 27°57'22.3"

Description: Circular walls of stone, with a lot of ash

Discussion:

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary

Legal requirements: NMC permit

33. Site number: 2527DB50

Location: Hoekfontein 432JQ: S 25°35'51.9" E 27°57'16.8"

Description: Concentration of magnetite

Discussion: This seems to be a natural occurrence. No signs of smelting activities could be found in the vicinity

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

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

Legal requirements: None

34. Site number: 2527DB51

Location: Hoekfontein 432JQ: S 25°35'45.1" E 27°57'24.4"

Description: Circular walls of stone and terracing on the basal contour of the mountain.

Discussion:

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: NMC permit

35. Site number: 2527DB52

Location: Hoekfontein 432JQ: S 25°35'55.4" E 27°57'22.5"

Description: Circular walls of stone, with lots of ash, pottery and grinding stones.

Discussion:

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary

Legal requirements: NMC permit

36. Site number: 2527DB53

Location: Hoekfontein 432JQ: S 25°36'00.1" E 27°57'34.8"

Description: Low, circular walls of stone.

Discussion:

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Negative

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

Legal requirements: None