Archaetnos Culture & Cultural
Resource Consultants
BK 98 09854/23

A REPORT ON A HERITAGE IMPACT ASSESSMENT STUDY FOR PROPOSED MINING DEVELOPMENT ON THE REMAINING EXTENT AND PORTIONS 2, 3, 4 AND 5 OF KAPSTEWEL 436, KURUMAN REGISTRATION DISTRICT, SIYANDA DISTRICT MUNICIPALITY, NORTHERN CAPE PROVINCE

For:

AUTUMN SKIES TRADING 128 CC

REPORT: **AE939**

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SUMMARY

Archaetnos cc was requested by GCS, on behalf of Autumn Skies Trading 128 cc, to conduct a Heritage Impact Assessment Study for proposed mining development on the remaining extent and portions 2, 3, 4 and 5 of Kapstewel 436, Kuruman Registration District, Siyanda District Municipality, Northern Cape Province.

The fieldwork undertaken revealed a number of objects, features and sites of cultural (archaeological or historical) heritage significance in the area of proposed development. **The proposed development can however continue, as long as the recommendations put forward at the end of this report are implemented.**

CONTENTS

page

SUMMARY 3

CONTENTS 4

1. INTRODUCTION 5
2. TERMS OF REFERENCE 5
3. CONDITIONS AND ASSUMPTIONS 5
4. LEGAL REQUIREMENTS 6
5. METHODOLOGY 7
6. DESCRIPTION OF THE AREA 7
7. DISCUSSION 10
8. CONCLUSIONS AND RECOMMENDATIONS 17
9. REFERENCES 18

APPENDIX A 19

APPENDIX B 20

APPENDIX C 21

1. INTRODUCTION

Archaetnos cc was requested by GCS, on behalf of Autumn Skies Trading 128 cc, to conduct a Heritage Impact Assessment Study for proposed mining development on the remaining extent and portions 2, 3, 4 and 5 of Kapstewel 436, Kuruman Registration District, Siyanda District Municipality, Northern Cape Province.

The client indicated the area where the proposed development is to take place, and the survey was confined to this area.

2. TERMS OF REFERENCE

The Terms of Reference for the survey were to:

1. Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the property (see Appendix A).

2. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value (see Appendix B).

3. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.

4. Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources.

5. Recommend suitable mitigation measures should there be any sites of significance that might be impacted upon by the proposed development.

6. Review applicable legislative requirements.

3. CONDITIONS & ASSUMPTIONS

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

1. Cultural Resources are all non-physical and physical man-made occurrences, as well as natural occurrences associated with human activity. These include all sites, structure and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development. Graves and cemeteries are included in this.

2. The significance of the sites, structures 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. The various aspects are not mutually exclusive, and the evaluation of any site is done with reference to any number of these aspects.

3. Cultural significance is site-specific and relates to the content and context of the site. Sites regarded as having low cultural significance have already been recorded in full and require no further mitigation. Sites with medium cultural significance may or may not require mitigation depending on other factors such as the significance of impact on the site. Sites with a high cultural significance require further mitigation (see Appendix B).

4. The latitude and longitude of any archaeological or historical site or feature, is to be treated as sensitive information by the developer and should not be disclosed to members of the public.

5. All recommendations are made with full cognizance of the relevant legislation.

6. It has to be mentioned that it is almost impossible to locate all the cultural resources in a given area, due to factors such as vegetation and the subterranean presence of objects, features and sites. Developers should however note that the report should make it clear how to handle any other finds that might occur.

4. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

4.1 The National Heritage Resources Act

According to the above-mentioned law the following is protected as cultural heritage resources:

a. Archaeological artifacts, structures and sites older than 100 years
b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
c. Objects of decorative and visual arts
d. Military objects, structures and sites older than 75 years
e. Historical objects, structures and sites older than 60 years
f. Proclaimed heritage sites
g. Grave yards and graves older than 60 years
h. Meteorites and fossils
i. Objects, structures and sites or scientific or technological value.

Archaeology, palaeontology and meteorites

Section 35(4) of this act states that no person may, without a permit issued by the responsible heritage resources authority:

a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
d. bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.
e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency.

Human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

a. destroy, damage, alter, exhume or remove from its original position of otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
b. destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or

c. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations** (**Ordinance no. 12 of 1980**) (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act** (**Act 65 of 1983 as amended**).

Unidentified/unknown graves are also handled as older than 60 until proven otherwise.

4.2 The National Environmental Management Act

This act states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

5. METHODOLOGY

5.1 Survey of literature

A desktop study, to place any archaeological sites that might be identified during the survey in a local and general context, was undertaken. A basic description of the various periods in the archaeology of southern Africa is also given.

5.2 Field survey

The survey was conducted according to generally accepted HIA practices and was aimed at locating all possible objects, sites and features of cultural significance in the area of proposed development. If required, the location/position of any site was determined by means of a Global Positioning System (GPS), while photographs were also taken where needed.

The survey was undertaken on foot, while the area's parameters were determined by vehicle.

5.3 Documentation

All sites, objects features and structures identified are documented according to the general minimum standards accepted by the archaeological profession. Co-ordinates of individual localities are determined by means of the Global Positioning System (GPS). The information is added to the description in order to facilitate the identification of each locality.

6. DESCRIPTION OF THE AREA

The area is located on the remaining extent and portions 2, 3, 4 and 5 of Kapstewel 436, Kuruman Registration District, Siyanda District Municipality, Northern Cape Province (**Figure 1**).

Large portions of the area have been extensively disturbed through recent historical (old SAMANCOR Manganore) opencast mining activities and prospecting. Some structural remains associated with these activities are scattered throughout the area. Surrounding properties situated within the same vegetation type are mostly used for mining and livestock farming purposes. The survey concentrated

to a large degree on the relatively undisturbed areas, while a number of possible shelters were also investigated for possible human utilization.

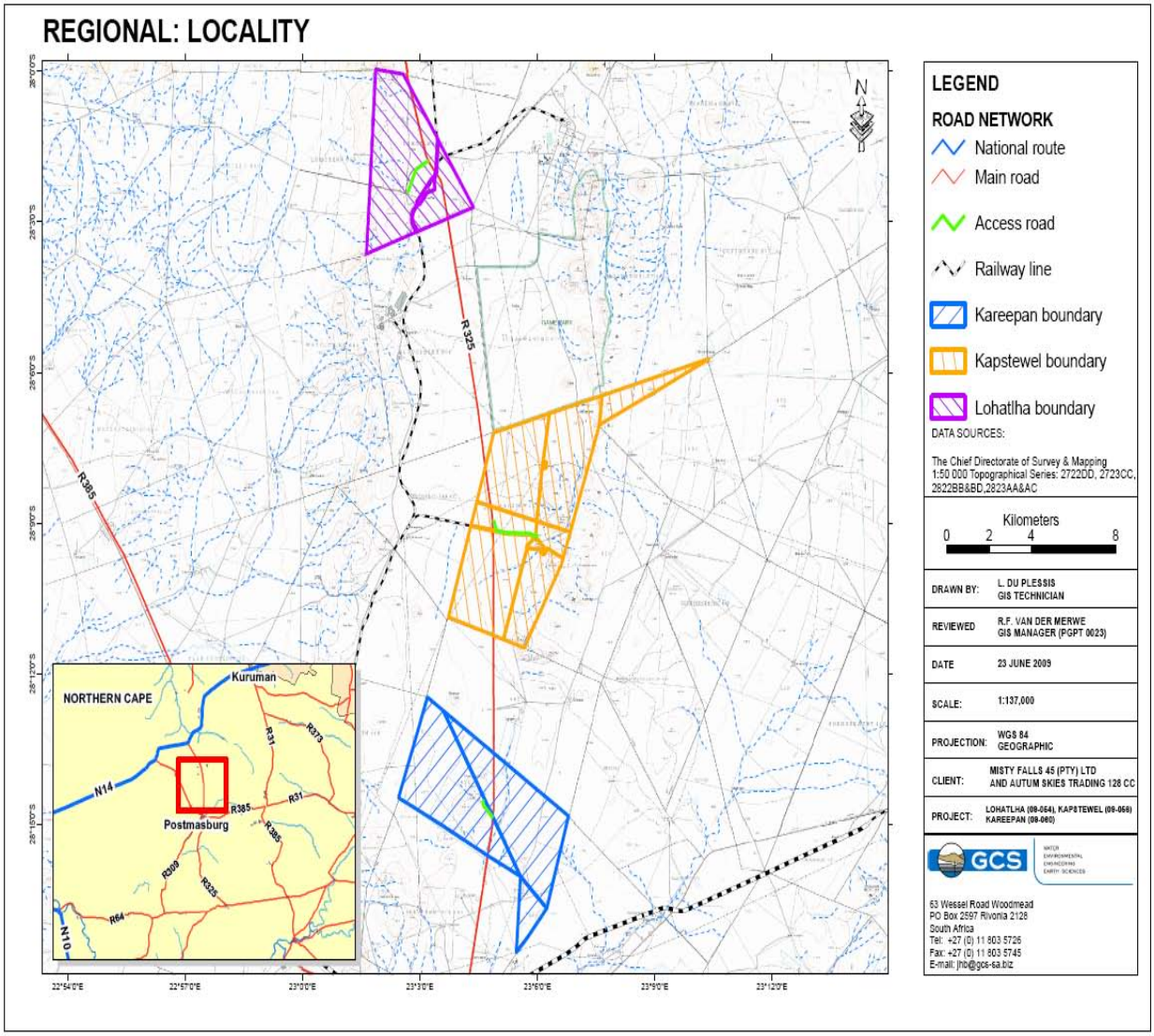

Figure 1: Location of the area – the orange block indicates Kapstewel

Figure 2: General view of undisturbed portions of the survey area

Figure 3: Another view of the survey area – note the various prospecting holes and opencast mining areas

Figure 4: View of main opencast mining area – old SAMANCOR Manganore mine

7. DISCUSSION

In order to introduce the reader to the archaeology of the South Africa, a short background to the various time periods relevant to southern African archaeology is given.

7.1 Stone Age

The Stone Age is the period in human history when lithic material was mainly used to produce tools (Coertze & Coertze 1996: 293). In South Africa the Stone Age can be divided in three periods. It is however important to note that dates are relative and only provide a broad framework for interpretation. The division for the Stone Age according to Korsman & Meyer (1999: 93-94) is as follows:

Early Stone Age (ESA) 2 million – 150 000 years ago
Middle Stone Age (MSA) 150 000 – 30 000 years ago
Late Stone Age (LSA) 40 000 years ago – 1850 - A.D

A number of Stone Age sites are known in the general geographical area, including Wonderwerk Cave near Kuruman and the Kathu Pan and Kathu Townlands sites (Mitchell 2002:59-70), dating to between the ESA and LSA. Stone tools were found scattered over the area during the survey, evidence that Stone Age people were active in the area. Some stone tools were also found during the survey of one of the other application areas (Kareepan/Pensfontein).

A number of possible caves or shelters/overhangs were also investigated in the area to see whether or not these were utilized or inhabited during the Stone Age or later periods. No evidence of occupation or use, in the form of tools or other cultural material, or rock art, was visible. However, the possibility of this should no be discounted.

Figure 5: A Stone Age flake-tool from the area

Figure 6: View of the area from one of the possible shelters.
The old SAMANCOR mining operations on Kapstewel is visible in the distance

7.2 Iron Age

The Iron Age is the name given to the period of human history when metal was mainly used to produce artifacts (Coertze & Coertze 1996: 346). In South Africa it can be divided in two separate phases according to Van der Ryst & Meyer (1999: 96-98), namely:

Early Iron Age (EIA) 200 – 1000 A.D.
Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) however indicates that a Middle Iron Age should be included. His dates, which now seem to be widely accepted in archaeological circles, are:

Early Iron Age (EIA) 250 – 900 A.D.

Middle Iron Age (MIA) 900 – 1300 A.D.
Late Iron Age (LIA) 1300 – 1840 A.D.

One possible, small, Iron Age site was found in the area during the survey, although it is difficult to determine at this stage. If any major sites existed they might have been completely destroyed by recent historical mining activities. The closest known Iron Age sites in the wider geographical area include Doornfontein, Blinkklipkop (near Postmasburg) and the well-known Dithakong near Kuruman (Mitchell 2002: 346).

7.3 Historical Age

The historical age started with the first recorded oral histories in the area. It includes the moving into the area of people that were able to read and write. This included the expeditions of Anderson (1799), Truter and Somerville (1801), Lichtenstein (1805), Cowan & Donovan (1808), Burchell (1811) and Moffat & Archbell (1829) (Bergh 1999: 12-13 & 117-120).

A number of recent, historical sites were located. These all related to recent mining activities and prospecting in the study area.

Site 1 (S 28.13266 E 23.11854)

This site contains the remains of an old mining complex. There are various prospecting trenches, mine buildings and an ore crushing facility. Scrap metals, building rubble and old vehicle parts scatter the area. The site is probably less than 60 years of age and is deemed of low significance. The documentation (recording and photographs taken) done during the survey is seen as sufficient mitigation measures.

Probability of Impact: Possible
Extent of Impact: Local (up to 5k from the project site)
Duration of Impact: Long-term
Intensity of Impact: Medium

Significance of Impact: Moderate

Site 1: Ore crushing facility

Site 1: Ore dump

Site 2 (S 28.14171 E 23.11661)

This is a site with some low stone walled features, possibly dating to either the Iron Age or to earlier Later Stone Age hunter-gatherers. There are at least 3 circular and semi-circular features that might represent either windbreaks for shelters or dwellings. No artifacts were identified. The exact function or age of these features is unknown at this stage, and more investigation is needed. **The site is deemed to be of medium to high significance, and some mitigation measures need to be implemented should mining operations take place in this area. This will include mapping and drawing.**

Probability of Impact: Probable
Extent of Impact: Local (up to 5k from the project site)
Duration of Impact: Long-term
Intensity of Impact: Medium

Significance of Impact: Moderate

Site 2: One of the stone walled features on Site 2

Site 3 (S 28.14229 E 23.11664)

This is a possible grave. It is a stone packed, rectangular-shaped feature with no visible headstone. Some pieces of undecorated porcelain were found near to it. **If this is indeed an unknown grave it is of high significance. If the mining operations are to impact directly on this area, this will have to be taken into consideration and the mining plans will have to be altered in order to avoid disturbing the grave. If not possible, the grave will have to be exhumed and relocated after all necessary processes related to graves have been undertaken.**

Probability of Impact: Possible
Extent of Impact: Local (up to 5k from the project site)
Duration of Impact: Long-term
Intensity of Impact: Medium

Significance of Impact: Moderate

Site 3: Possible grave

Site 4 (S 28.14735 E 23.11530)

The site contains at least 9 circular (stone-lined) depressions, stretched in a row along an old mine prospecting road. The function or exact age of these features is unknown, but it is possible that it is related to the recent historic mining activities in the area and that it represents a mine camp where tents were pitched. The linear layout of the site does not conform to the Iron Age and its location next to the road does seem to favor the mine camp conclusion. Bottles and other cultural material found in the vicinity also seems to date the site to the 1960's/70's. The site has low significance, as it most probably is less than 60 years of age. The documentation done during the survey is deemed sufficient enough mitigation.

Probability of Impact: Possible
Extent of Impact: Local (up to 5k from the project site)
Duration of Impact: Long-term
Intensity of Impact: Medium

Significance of Impact: Moderate

Site 4: One of the circular depressions on the site

Site 4: Old Pepsi bottle

Site 5 (NO GPS location)

This is an old farm stead, with a number of buildings and features on it. It is less than 60 years of age and not very significant. It will be revamped and used as part of the new mining infrastructure. mpacted on by the mining activities. The documentation (recording and photographs taken) done during the survey deemed sufficient.

Probability of Impact: Definite
Extent of Impact: Site
Duration of Impact: Long-term
Intensity of Impact: Medium

Significance of Impact: Moderate

Site 5

Site 6 (S 28.15434 E 23.10222; S 28.15394 E 23.10295; S 28.15448 E 23.10101; S 28.15612 E 23.10101)

This site represents the old mine offices and complex of the old SAMANCOR Manganore mining operations. It contains various buildings and features. This could be re-used for the new mining operations. It is less than 60 years of age (dating to around the 1970's to 1990's). It has low cultural heritage significance and the documentation done during the survey is sufficient enough to be regarded as mtitgation.

Probability of Impact: Definite
Extent of Impact: Site
Duration of Impact: Long-term
Intensity of Impact: Medium

Significance of Impact: Moderate

Site 7 (S 28.15708 E 23.09991)

This site is related to Site 6 and contains the remains of the SAMACOR mining operations, including conveyor belts and the old railway line. The railway line will be revamped and used during the new mining operations. The documentation (recording and photographs taken) done during the survey is deemed sufficient.

Probability of Impact: Definite
Extent of Impact: Site
Duration of Impact: Long-term
Intensity of Impact: Medium

Significance of Impact: Moderate

8. CONCLUSIONS AND RECOMMENDATIONS

In conclusion it is possible to say that the assessment of the area was conducted successfully. The area has been extensively disturbed through recent historical opencast mining operations and prospecting and many of the sites recorded are related to this. These sites are of low heritage significance and no mitigation measures are needed. Two site, Site 2 and Site 3 has medium to high significance is needed should the mining operations extend into the area where they are located.

Site 2 is a possible Iron Age or earlier Stone Age site, and mitigation would include detailed mapping and drawing and further research. Site 3, a possible grave and has high significance if indeed it is a grave. If possible it should be avoided, but if not then it should be exhumed and relocated after all necessary legal processes has been followed. Both these sites and the mitigation involved should be handled by archaeologists specializing in these aspects.

It is however recommended that the proposed development can continue, taking into consideration the above recommendations. T**he subterranean presence of archaeological or historical objects, features or sites should also always be considered. If any of these are uncovered during any construction work or other development activities a professional archaeologist should be called in to investigate.**

REFERENCES

1:50 000 Topographical Map location of development:: Map provided by client (GCS)

Aerial view of location of development area (Appendix C): produced on Google Earth – Provided by client (GCS)

Site distribution (Appendix C): Produced on Google Earth

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Appendix A

Definition of terms:

Site: A large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artifacts, found on a single location.

Structure: A permanent building found in isolation or which forms a site in conjunction with other structures.

Feature: A coincidal find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).

Appendix B

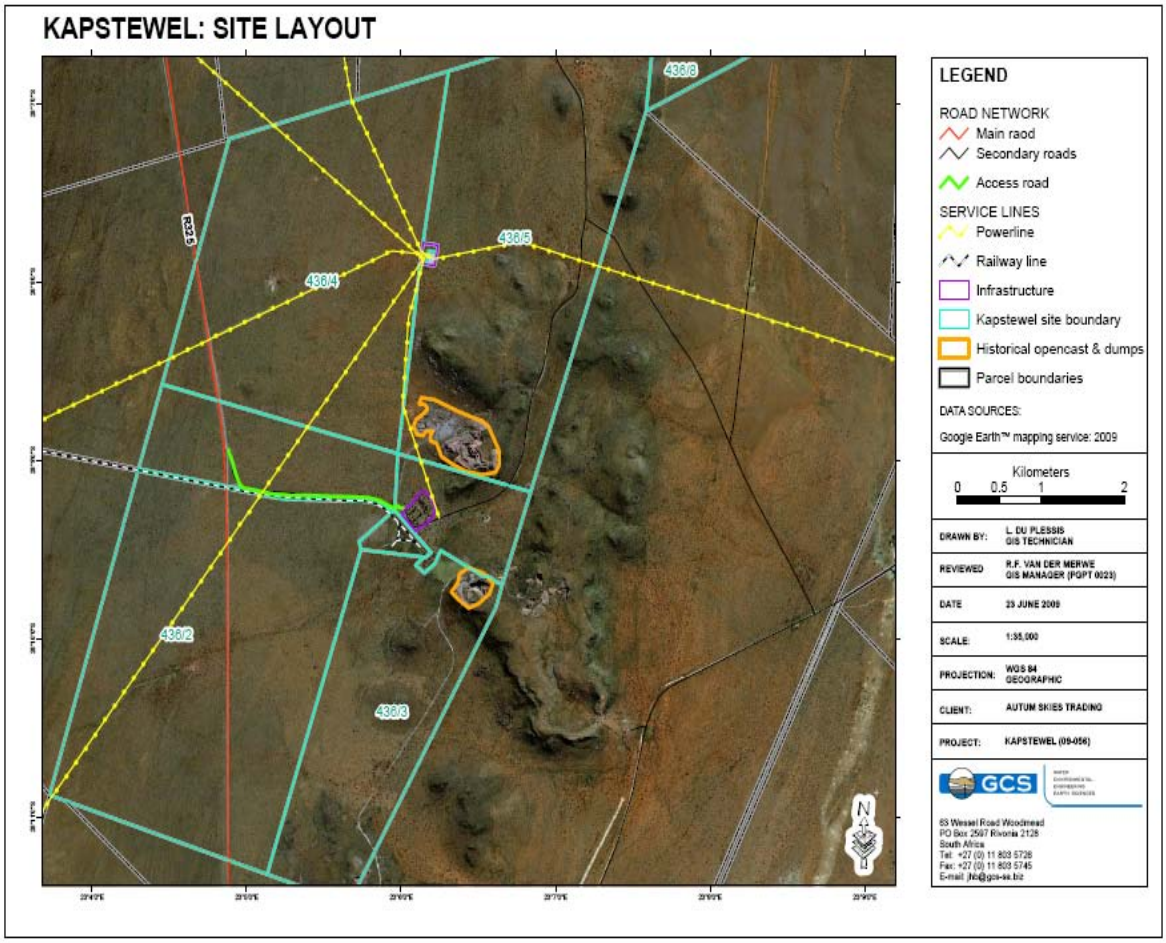
Cultural significance:

- Low — A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.

- Medium — Any site, structure or feature being regarded less important due to a number of factors, such as date and frequency. Also any important object found out of context.

- High — Any site, structure or feature regarded as important because of its age or uniqueness. Graves are always categorized as of a high importance. Also any important object found within a specific context.

Appendix C – Aerial view of the location of the survey area and site distribution




R325
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Site 2
Site 3
Site 4
Site 6
Site 7
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