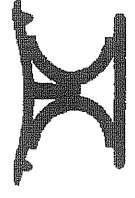


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5 September 2011

**CULTURAL HERITAGE RESOURCES
IMPACT ASSESSMENT OF THE PROPOSED
NEW FLUORSPAR MINE
ON THE FARMS KROMDRAAI 209JR AND
NAAUPOORT 208JR, NOKENG, GAUTENG
PROVINCE**

1. DEFINITION

The broad generic term *Cultural Heritage Resources* refers to any physical and spiritual property associated with past and present human use or occupation of the environment, cultural activities and history. The term includes sites, structures, places, natural features and material of palaeontological, archaeological, historical, aesthetic, scientific, architectural, religious, symbolic or traditional importance to specific individuals or groups, traditional systems of cultural practice, belief or social interaction.

2. PROTECTED SITES IN TERMS OF THE NATIONAL HERITAGE RESOURCES ACT, ACT NO. 25 OF 1999

The following are the most important sites and objects protected by the National Heritage Act:

- a. Structures or parts of structures older than 60 years.
- b. Archaeological sites and objects.
- c. Palaeontological sites.

- d. Meteorites.
- e. Ship wrecks.
- f. Burial grounds.
- g. Graves of victims of conflict.
- h. Public monuments and memorials.
- i. Structures, places and objects protected through the publication of notices in the Gazette and Provincial Gazette.
- j. Any other places or objects, which are considered to be of interest or of historical or cultural significance.
- k. Geological sites of scientific or cultural importance.
- l. Sites of significance relating to the history of slavery in South Africa.
- m. Objects to which oral traditions are attached.
- n. Sites of cultural significance or other value to a community or pattern of South African history.

3. METHODOLOGY

All relevant maps and documents on the site were studied. The site was visited and visually inspected. Interviews were conducted with farm workers and farm owners.

4. RESULTS

The proposed development area is typical mixed Bushveld with low hills and valleys. The site has very dense vegetation which makes the finding of archaeological sites difficult.

Some Stone Age flakes were found in areas scraped for roads. These are out of context and of no scientific value. Some Early Stone Age cleavers and hand axes were observed in the drainage areas on the eastern part of the site at a location S25°17'4.6" & E28° 36' 21.6". These comprised a number of scattered finds rather than an assemblage of scientific importance.

On a small hill known as Plattekop where mining will take place some stone walling was found. These stonewalls are old as they are overgrown with lichens. A long stonewall with a number of openings follows the southern side of the Plattekop. The wall starts at S25° 15' 52.0" and E28° 34' 57.0" and then proceeds to S25° 15' 52.1" and E28° 34' 56.5" and S25° 15' 51.9" and E28° 34' 55.6" and ends at S25° 15' 51.0" and E28° 34' 54.1" (see photograph 1 and 2).

On the eastern side of the koppie three small semi circles with a diameter of ±8–10m were found at:

S25° 15' 52.5" and E28° 34' 58.2" (see photograph 3)
 S25° 15' 50.9" and E28° 34' 59.2" (see photograph 4)
 S25° 15' 50.3" and E28° 34' 58.5" (see photograph 5).

The site contains no visible deposit and not a single potential ash heap could be found. The surface is uneven and full of rocks. On the western and northern sides no walls occur and the natural rocks form a barrier as the cliffs drop towards the river side, thus the large stonewall and natural rocks together form a circular enclosure.

On the eastern side of the tar road the following were located:

A single clayed up structure is located at S25°16'57.0" E28°36'4". The structure is rectangular and measures approximately 12m x 4.5m. Only the walls remain up to a height of 2.5m, foundations are of ferri-crete. Due to the state of decay and the absence of any other visible cultural material no date could be assigned to the structure. The area is also severely overgrown. In general the technique used in the construction of the structure is known as "op klei" and was only used in the pioneer phase in the Transvaal during the 19th century. In later years it became quite common as a building technique amongst the Ndebele people.

Further to the east in close proximity to a drainage line a number of graves were located in two separate locations:

The first and largest cemetery occurs at S25°17'5.1" E28°36'22.9" and comprises at least 14 unmarked graves and 1 marked grave. All the graves are orientated in an east west direction. The marked grave has both an unmarked historic and a modern grave stone that was recently erected, indicating that relatives of the deceased still tend to the grave. The area is severely over grown and more graves may be present. The marked grave has the inscription: 'In loving memory of Mantlaboro Jan Modise' but contains no date. In order to obtain more info the property owner was contacted, but no additional information could be obtained. It is estimated that the graves are at least 40 years old.

The second cemetery comprising 2 graves occur at a position S25°17'7.6" E28°36'19.6". The two graves occur approximately 15 metre apart. Both graves are unmarked.

5. CONCLUSION

The Stone enclosures:

Stonewalls on Plattekop were either part of a temporary cattle or animal enclosure or could have been an initiation site. Though no initiation stone cairns (or phiri's) are present. It is clear that the site has only been used for a very short time.

The Clayed structure:

In all likely hood the structure dates to the 19th century and is interesting from a building technique point of view, but could also be of Ndebele origin.

The Cemeteries:

All graves are protected. Because graves are a very sensitive issue the mine has replaced its site layout and the graves will not be affected by mining activities.

6. EVALUATION

The Stone enclosures:

The site has no visible archaeological deposit and was most probably used for a very short period of time. Stonewalls look similar to Later Iron Age stonewalls recorded in the Dinokeng area (Küsel 2002). The site has little archaeological or heritage value and thus is only of local interest.

The Clayed structure:

The structure is of local importance.

The Cemeteries:

The Cemeteries are of local importance.

7. RECOMMENDATIONS

The Stone enclosures:

It is recommended that a Phase II Cultural Heritage Resources impact assessment is done on the site to record all archaeological features as it will be destroyed by mining. Here after an application to destroy the site may be made to SAHRA.

The Clayed structure:

It is recommended that a Phase II Cultural Heritage Resources impact assessment is done on the site to record all features. Here after an application to destroy the site may be made to SAHRA.

The Cemeteries:

The Cemeteries have statutory protection in terms of the law and can either be protected or an application for relocation made in terms of the relevant act (see attachment A). The mine has decided to retain the graves in situ. The sites have to be cleaned and fenced in for proper protection. See new map of mine layout on page 14.

8. SITE INFORMATION

Owners contact details:
Different landowners. To be updated once client buys property.
Developers contact details:
Caltlin Investments (Pty) Ltd

<p>Consultants contact details:</p> <p>M Grobler AGES Pty Ltd 012 809 3086 Postnet 74 Private Bag X07 Arcadia 0007</p>
<p>Type of development (e.g. low cost housing project, mining etc.)</p> <p>Mining development</p>
<p>Whether rezoning and/or subdivision of land is involved:</p> <p>Yes</p>
<p>Full location of Province, Magisterial District/Local Authority, property (e.g. farm, erf name and number:</p> <p>Kromdraai 209JR Naauwpoort 208JR Nokeng tsa Taemane local municipality Metsweding District Municipality Gauteng Province</p>
<p>Location map must have the polygon of the area to be surveyed on it and full geographical coordinates for all relevant points and where applicable indication of the area to be developed (footprint):</p> <p>Attached</p>
<p>If possible an aerial photograph of the specific area showing the location of all site.</p> <p>Attached</p>

9. REFERENCES

- 1/50 000 Map
- Küsel U S 2002 Cultural Heritage Resources impact assessment of the Dinokeng area Gauteng
- Huffman T N 2007 Handbook to the Iron Age.

10. PHOTOGRAPH

See pages 6 to 10

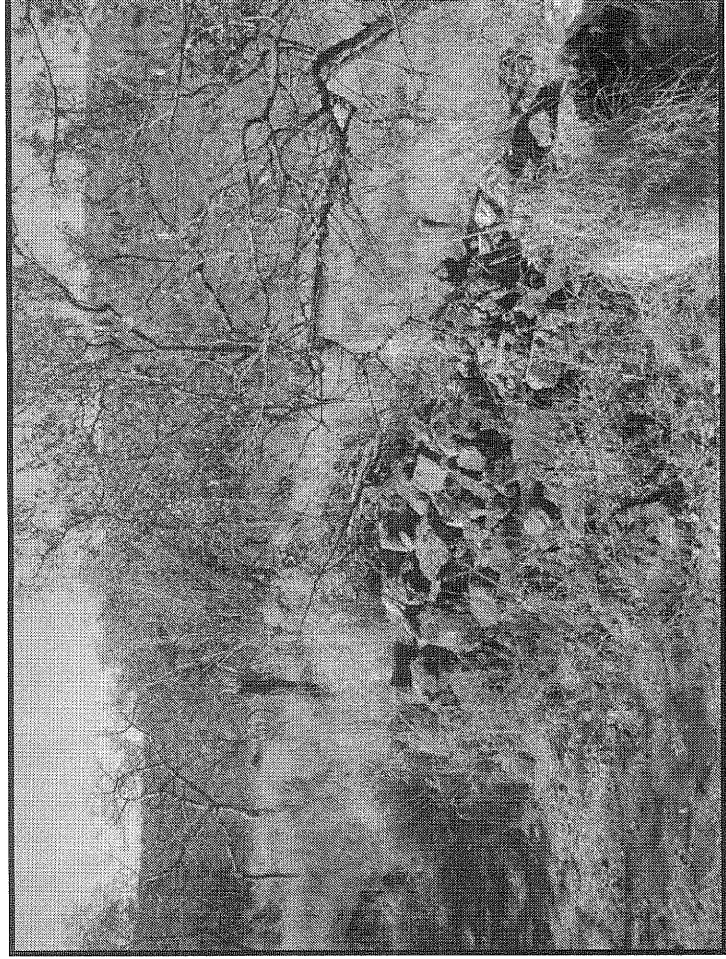
11. MAPS

See page 11 to 14

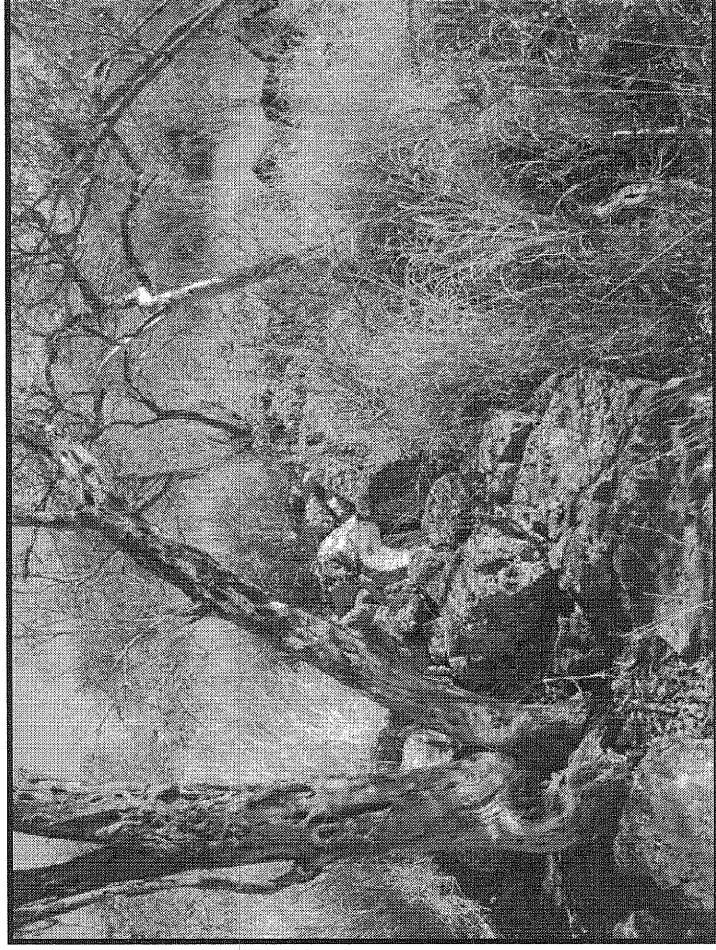
PHOTOGRAPHS



No 1. Large stonewall with lichens



No 2. One of the openings in the large wall



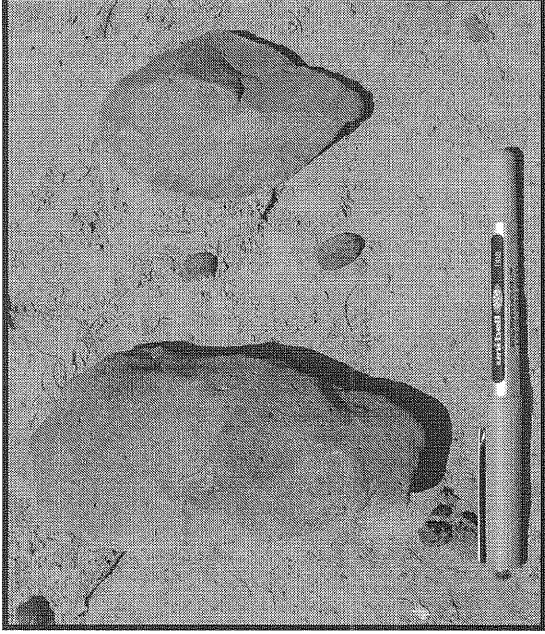
No 3. Small stonewall



No 4. Small stone circle



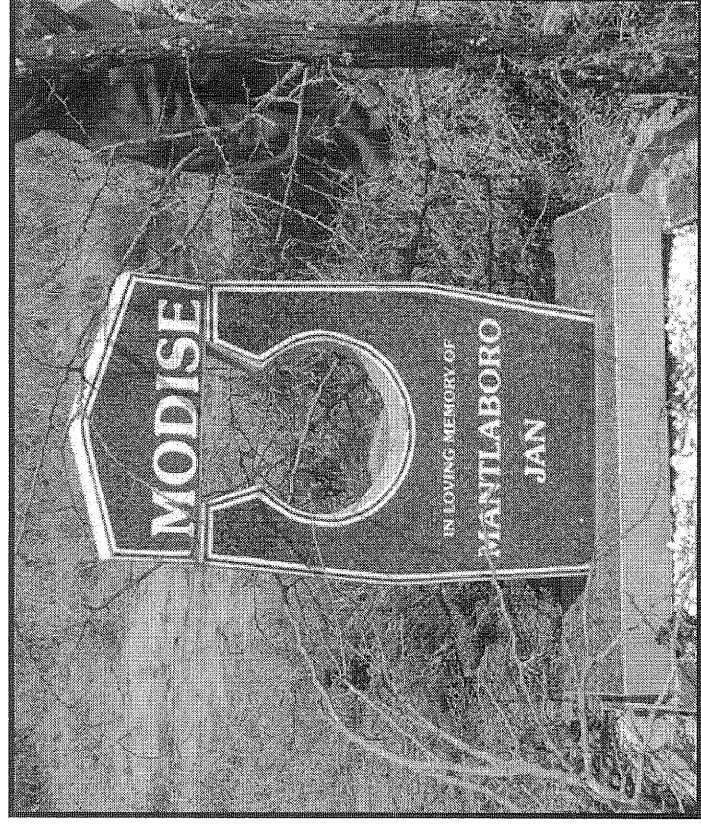
No 5. Small Stone circle



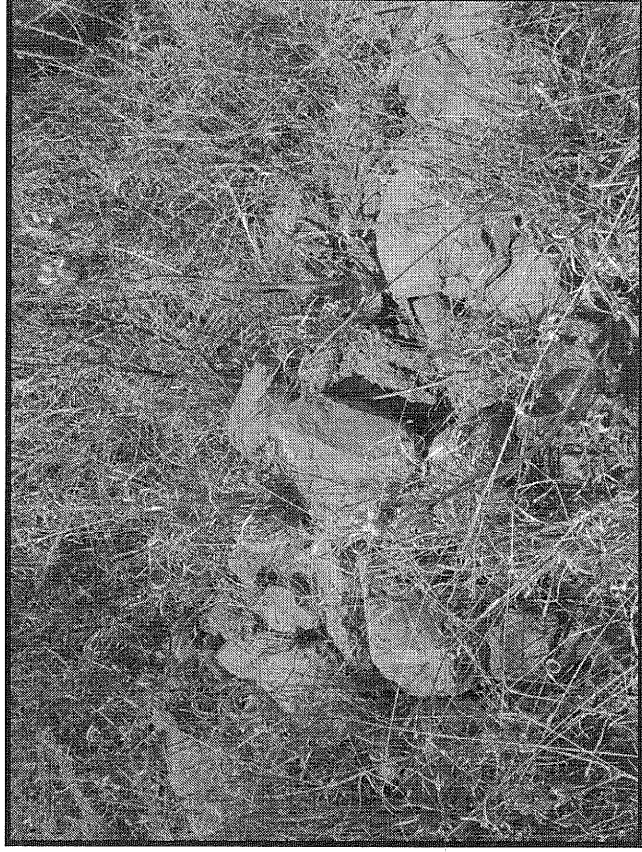
No 6. Early Stone Age artefacts



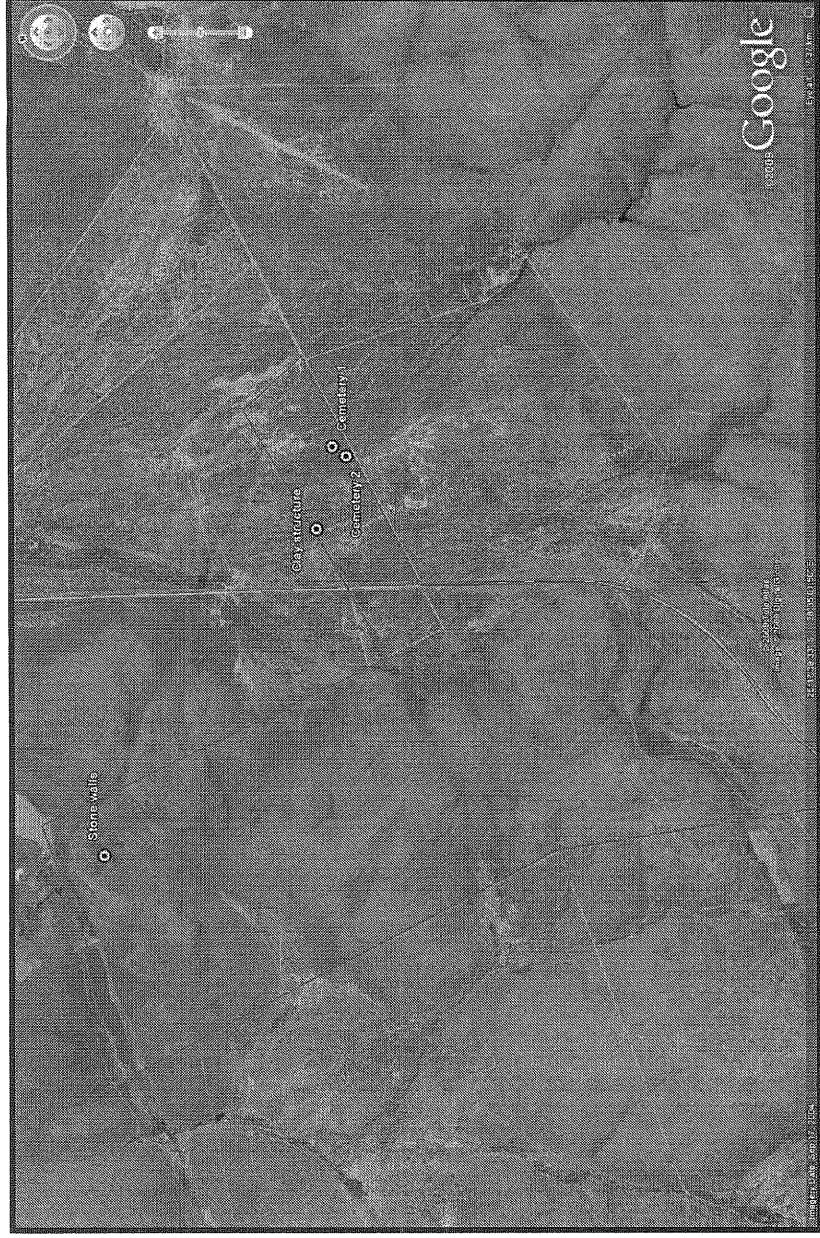
No 7. Part of the clay structure located on the eastern portion.



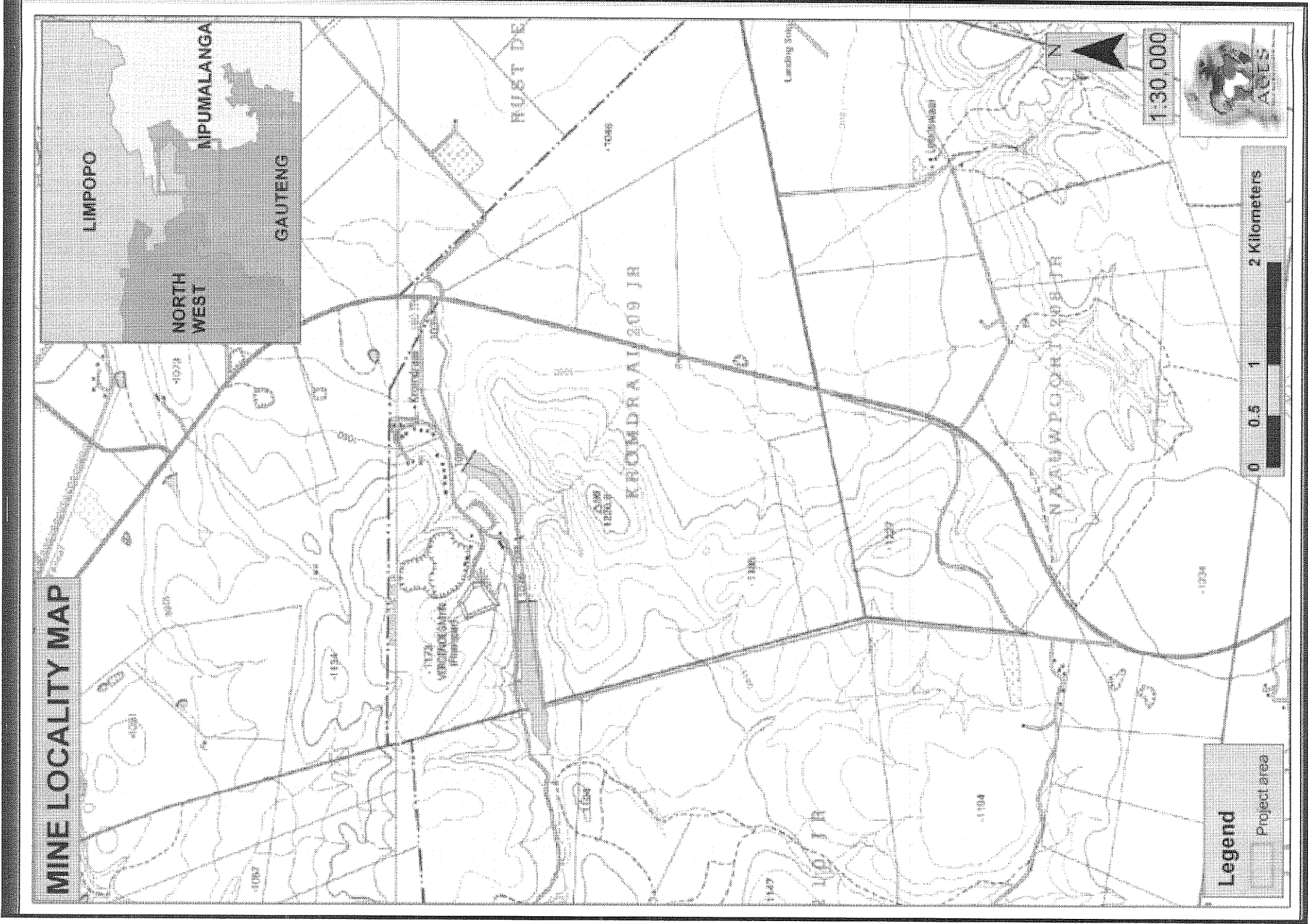
No 8. The marked grave in Cemetery 1.



No 9. An unmarked grave located in Cemetery 2.



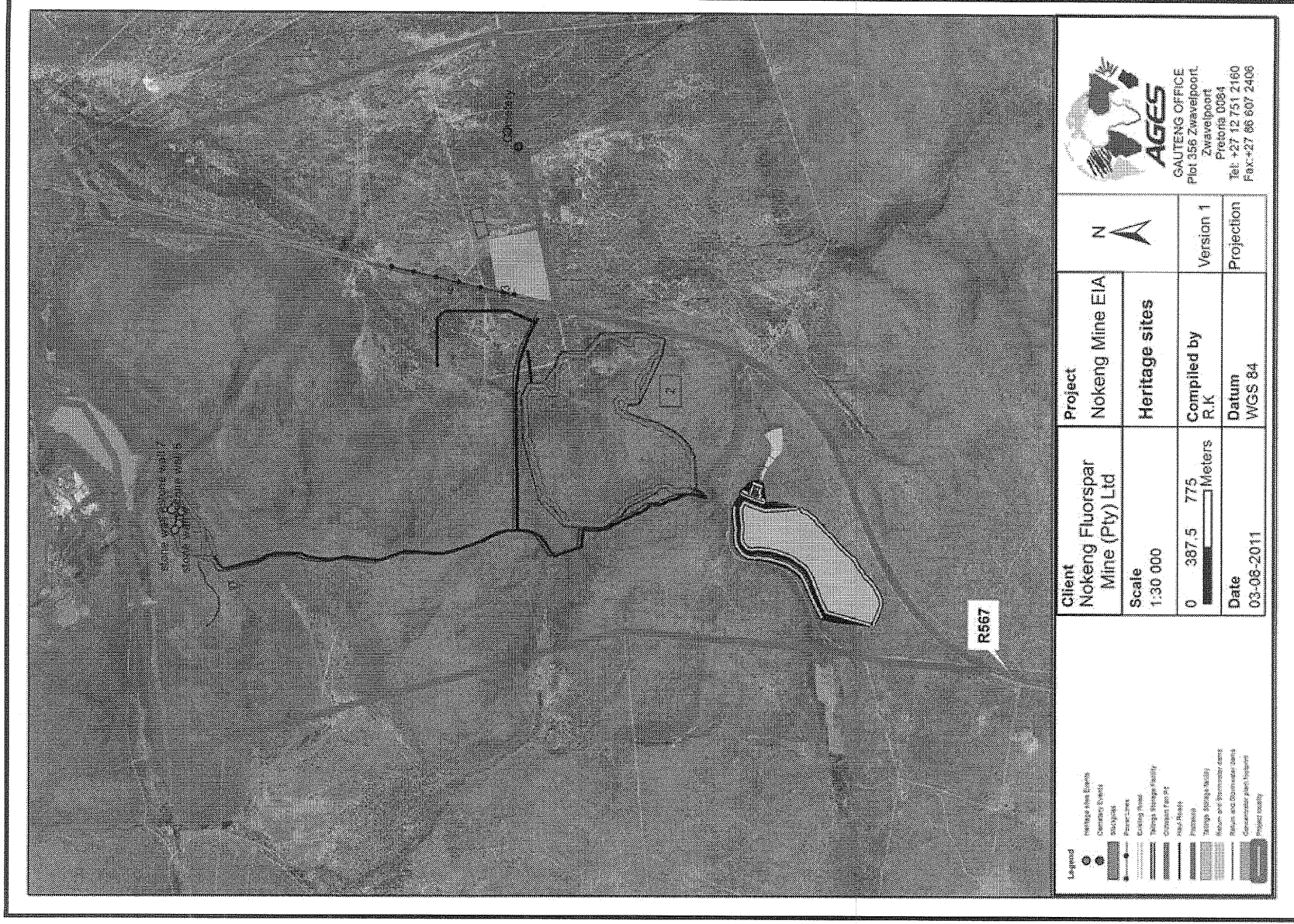
No 10. Location of Sites




Proposed mine layout



New layout of mine



Legend Heritage Site Block Contour Lines Buildings Fences Existing Road Mining Storage Facility Compact Fan Pit New Road Fences Mining Storage Facility Refuse and Stormwater tanks Refuse and Stormwater tanks Concentrator Plant layout Project layout	Client Nokeng Fluorspar Mine (Pty) Ltd	Project Nokeng Mine EIA	 N
	Scale 1:30 000	Heritage sites	
	0 387,5 775 Meters	Compiled by R.K	Projection
	Date 03-08-2011	Datum WGS 84	


AGES
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ANNEXURE A

ARCHAEOLOGY, GRAVES AND THE LAW

- 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.
- A registered undertaker can only handle human remains 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

THE PROCESS/STEPS THAT ARE TAKEN

SITE VISIT: WHAT IS DONE DURING THIS SITE VISIT?

Physical documentation of graves prior to exhumation: Photographic, GPS, Site Maps, Final counting etc...

Determining context of graves: If any, are they associated with other sites such as farmhouses/structures etc...

SITE SIGNS AND ADVERTISEMENTS

Notices (in compliance with the National Heritage Resources Act) must be placed on the site/s, indicating the intent of relocation. This must be in at least 3 languages and has to be up for a minimum of 60 days.

As part of the preliminary social consultation, newspaper ads as well as radio announcements has to be made as well
This is in order that family members/descendants, if any, can reply/come forward to indicate if any of the graves belong to them

SOCIAL CONSULTATION

If any individuals responded during initial consultation/public participation, then full social consultation undertaken. This will include speaking to individuals regarding graves, their family wishes, getting consent for relocation/reburial etc...
It could also include an Open Day/Traditional Ceremony (or more than one if necessary)

PERMIT APPLICATIONS

Undertakers permits applied for and obtained during social consultation
Only after all necessary documents, family consent obtained, landowner letter, can SAHRA Permit be applied for and obtained. A few weeks should be budgeted for this.
EXHUMATION & RELOCATION

When permits obtained physical exhumation, investigation and reburial commences

THE ARCHAEOLOGICAL INVESTIGATION OF BURIALS: DOCUMENTATION FORM

This form contains the following information for each burial:

Feature/Burial No	Site Name/No	GPS Reading	Farm
Name/No			
Province	Location of new cemetery		

It also includes information on the

Burial Type

Burial Dimensions

Grave Type

Grave Dimensions

Associated sites/features

Specimens or grave goods found

The state of preservation and percentage completeness of the human skeletal material

Sex and Age of the individual

Further Remarks

Information on the headstone and grave dressing (if any)

Photographs of each grave, headstone (if any), the skeletal remains, grave goods etc... are also taken and used in the final documentation