

**A SURVEY OF ARCHAEOLOGICAL RESOURCES  
IN THE WITPOORT MINING LEASE AREA, OTTOSDAL**

For:

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REPORT: 95KH02

Date of survey: March 1995

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SUMMARY

**A survey of archaeological resources in the Witpoort mining lease area, Ottosdal**

A survey of the mining lease area on the farm Witpoort 281IP was undertaken with the aim of identifying all objects, features and structures of archaeological and cultural historical importance. From this it was deduced that humans have been living in this area since the Early Stone Age, a period spanning approximately 1 500 000 years.

Most of the archaeological material seem to be located in the area that eventually will be impacted upon by mining activities. It is suggested that a policy for the conservation of these resources be developed in cooperation with a museum or university department.

OPSOMMING

**'n Opname van argeologiese hulpbronne in die Witpoort mynkonsessie gebied, Ottosdal**

'n Opname van die mynkonsessie gebied op die plaas Witpoort 281IP is gedoen met die doel om alle voorwerpe, verskynsels en strukture van argeologiese en kultuurhistoriese belang te identifiseer. Hieruit blyk dit dat die omgewing reeds sedert Vroeë

Steentydperktye deur die mens bewoon is, dit wil sê 'n periode van nagenoeg 1 500 000 jaar.

Die meerderheid van die materiaal wat geïdentifiseer is, word aangetref in die gebied wat weens mynbou-aktiwiteite vernietig gaan word. Daar word aanbeveel dat 'n beleid, in samewerking met 'n museum of universiteitsdepartement, ontwikkel word vir die bewaring van hierdie hulpbronne.

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## A SURVEY OF ARCHAEOLOGICAL RESOURCES IN THE WITPOORT MINING LEASE AREA, OTTOSDAL

### 1. AIMS OF THE SURVEY

This survey aimed to locate, identify, evaluate and document the sites, objects and structures of archaeological and cultural historical importance within the borders of the **Ceramic and Industrial Minerals** mining lease area on the farm Witpoort 281IP. The assignment was carried out on the request of Mr P Ringdahl of **Ceramic and Industrial Minerals**.

### 2. CONDITIONS AND ASSUMPTIONS

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

- The **significance** of the site and artifacts are determined by means of their historical, social, aesthetic and scientific values in relation to their uniqueness, condition of preservation and its research potential. It must be kept in mind that these various aspects are not mutually exclusive and that the evaluation of any site is done with reference to any number of these.
- Following on the former, it is not the purpose of this report to write a history of the area, based on the results of the survey, but purely to list and evaluate what was found.
- All recommendations are made with reference to the **National Monuments Act, Act 28 van 1969**, as amended.
- Only a few artifacts were collected for the purpose of illustrating the report (see Figure 2). This illustration was deemed necessary in order to supply essential background to the reader, who, in most cases, would not be familiar with the material. In terms of a permit issued by the National Monuments Commission, these artifacts will be accessioned in the collection of the National Cultural History Museum, Pretoria.

### 3. METHODOLOGY

#### 3.1 Preliminary investigation

### 3.1.1 Survey of the literature

A survey of all 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.

### 3.1.2 Data sources

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

### 3.1.3 Other sources

The relevant topocadastral and other maps were also studied.

## 3.2 Field survey

The next step was to visit the area to be surveyed. The survey team was orientated by Mr Ringdahl, of the mining company, in relation to the mining plan, beacons and borders of the survey area, security, etc.

The survey was conducted according to generally accepted archaeological practices, and was aimed at locating all possible sites and occurrences. This was done by dividing the whole area into blocks, making use of natural and man-made topographical elements. Within each block, all areas considered to have a potential for human use were investigated. As this particular site is very level and relatively small, this could be done very quickly.

## 3.3 Documentation

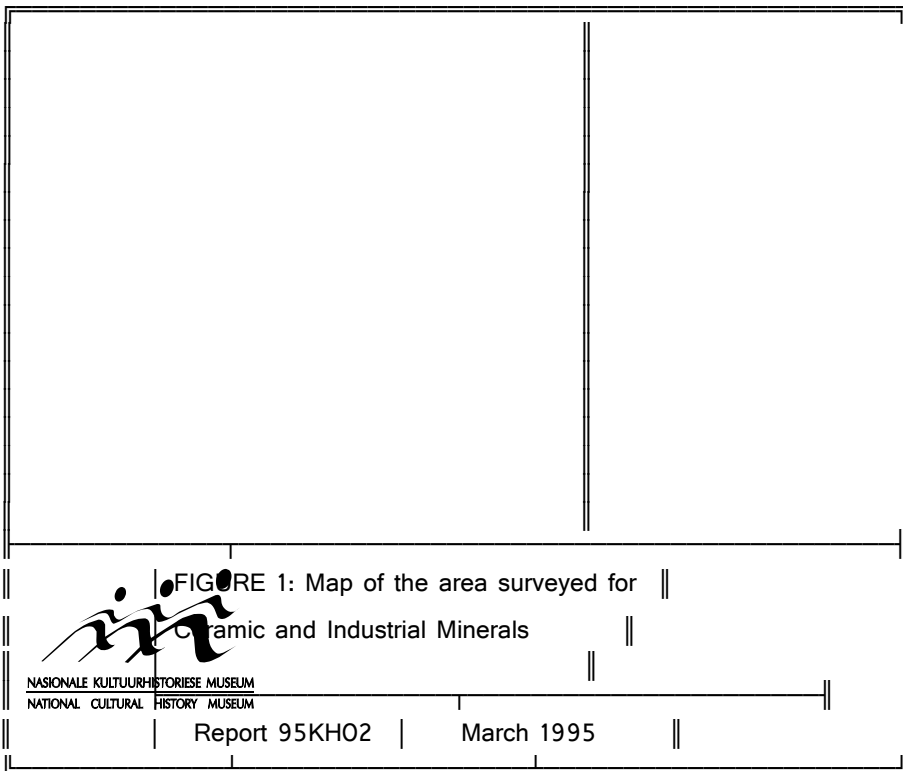
All sites, occurrences and structures identified, were documented according to the general standard accepted by the profession. The specific coordinates of the locality were determined by means of the **Global Positioning System (GPS)**<sup>1</sup> and plotted on a map. This information was added to the information already taken up in the ADRC.

## 4. DESCRIPTION OF THE AREA SURVEYED

The site surveyed is located on the farm Witpoort 281IP (26° 49' 11.6" S; 26° 03' 07.6" E - Ottosdal 2626CC) in the Lichtenburg district of North-West Province (Figure 1).

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<sup>1</sup> 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 correlating it with reference to the physical environment before plotting it on the map.



The area under consideration covers approximately 5 hectares, of which roughly 50% is vlei area. The mineral being extracted is pyrophyllite, which is used in the production of ceramics, paper, paint and other such materials. This particular area served as a small dam at some time in the past, allowing a thin layer of silt to be deposited on the site.

A section of the vlei is already being strip mined. By moving the topsoil, the pyrophyllite is exposed and then removed. As the area is located in a small stream bed and therefore susceptible to flooding, the topsoil is used to build a dyke around the mining area in order to keep the water out. Most of the Stone Age artifacts were located in the soil used for this dyke. Some were, however, also found in the profiles formed where the topsoil was removed, as well as and in parts of the vlei that will still be mined.

## 5. DISCUSSION

The site investigated seem to have an above average potential and the material found so far is deemed to be of good quality. Early (ESA or, more probably, First Transitional Phase - Fauresmith), Middle (MSA) and Later Stone Age (LSA) material was identified (Figure 2). This includes not only finished artifacts, but also cores, flakes and debris resulting from the process of manufacture. The material used in manufacturing the artifacts is mainly aplite and hornfels (ESA), chert and quartzite (MSA) and chert and brown jasper (LSA). Not all this material is locally available on the site and must, therefore, have been imported from some distance.

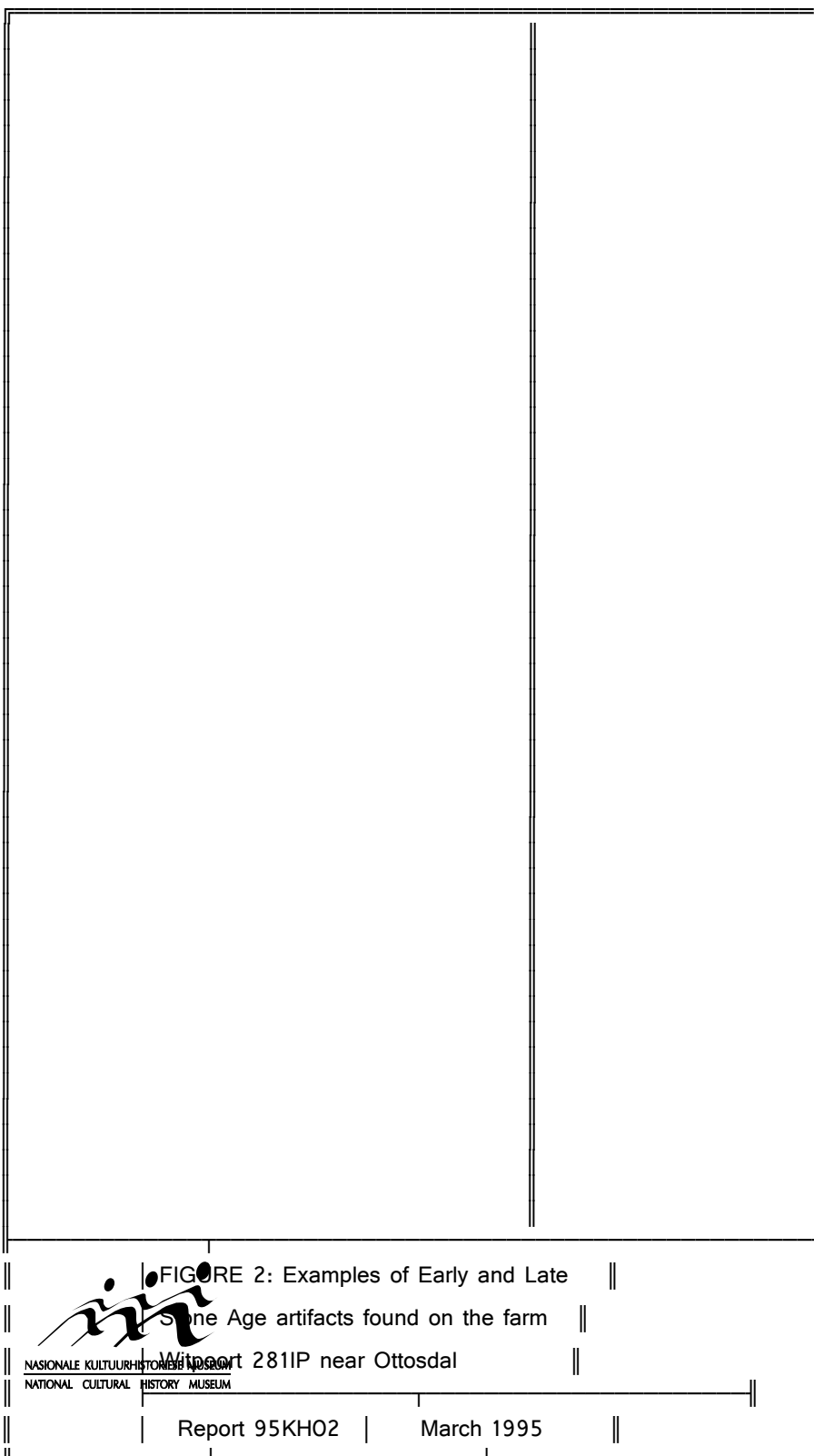
The stone artifacts gives the appearance of being 'fresh', in other words showing little sign of having been transported or rolled in water. The landscape at this point is relatively flat, giving little mechanism for transportation of the material. It is therefore concluded that it is found in situ, making this a primary site. Some exceptions do occur, mainly in the form of MSA material made of quartzite, which shows definite signs of having been rolled.

A number of pieces of bone and teeth were observed, but, being mostly surface material, these are taken to be of recent origin. No bone or charcoal was observed in the various profiles. As these materials' preservation depends on the local geochemistry, which at present is unknown and might not have been favourable, very little can be added in this regard.

## 6. CONCLUSIONS AND RECOMMENDATIONS

1. The site is deemed to have some significance for Stone Age archaeology, with the result that the strip mining will have a very high impact on the archaeological remains.





2. The LSA material is primarily located to the north of the area that will be mined. It is therefore recommended that this area be avoided at all cost during future activities. It would be possible, if money is available, to do a small excavation here, after which the area may be used for further mining activity.

3. As the least favourable solution, it is suggested that whenever a new strip is opened up, an archaeologist be brought in to conduct a quick survey and retrieve such material and related information as can be found.

4. It is, however, doubtful that this selective retrieval of so-called text book examples will be of much value. Understanding of the spatial and chronological distribution and relationships of material in the site, will contribute much to the understanding of early human settlement in this area. What is needed in this particular case is to attempt to retrieve information on the spatial relationship of the material, in an effort to reconstruct activity areas. This can be done by means of a series of test excavations.

5. As the greater part of the lease area will not be mined for some time to come, there is ample opportunity to design a strategy whereby measures to mitigate the eventual destruction of the site and the potential loss of material can be planned and implemented.

It is therefore suggested that this strategy involve the small scale archaeological testing of the site to determine its potential. This can be done in conjunction with a museum or an archaeology department at an university. At this point it is recommended that Mr Peter Beaumont of the McGregor Museum, Kimberley (Tel 0531 - 32645/6), an acknowledged expert on this particular section of the Stone Age and this type of site be contacted.

## 7. REFERENCES

### 7.1 Personal communications

Mr Peter Beaumont, McGregor Museum, Kimberley - Stone Age specialist  
 Dr Anne Thackeray, Pretoria - Stone Age specialist

### 7.2 Unpublished sources

#### 7.2.1 Data base:

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

### 7.3 Published sources

#### 7.3.1 Books and journals

Holm, S.E. 1966. Bibliography of South African Pre- and Protohistoric

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### 7.3.2 Maps

1:50 000 Topocadastral map - 2626CC Ottosdal

## 8. PROJECT TEAM

J A van Schalkwyk - survey and report

W Nothnagel - artwork

S Smith - language editing

## APPENDIX: CHRONOLOGY

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

### STONE AGE

Early Stone Age - Oldowan	2 500 000 - 1 500 000
- Acheulean	1 500 000 - 150 000
First transitional phase	250 000 - 150 000
Middle Stone Age	150 000 - 30 000 (or younger)
Late Stone Age	between 40 000 and 20 000 - c. AD 200 in Eastern and c. AD 1500 in Western South Africa

### IRON AGE

Early Iron Age	AD 200 - AD 1000
Late Iron Age	AD 1000 - AD 1830

### HISTORICAL PERIOD

Since the arrival of the white settlers - c. AD 1500 at the Cape of Good Hope and c. AD 1830 in the former Transvaal.