

Comprehensive and Professional Solutions for all Heritage Related Matters  
**CK 2006/014630/23** **VAT NO.: 4360226270**

**A DESKTOP HERITAGE IMPACT ASSESSMENT REPORT  
FOR THE SALENE ZEERUST PROSPECTING RIGHTS APPLICATION  
ON VARIOUS FARMS NORTH OF ZEERUST  
RAMOTSHERE MOILOA MAGISTERIAL DISTRICT, NORTHWEST PROVINCE**

For:

***Prescali Environmental Consultants (Pty) Ltd  
PO Box 2544  
Montana Park  
0159***

REPORT: **APAC021/100**

by:

***A.J. Pelser  
Accredited member of ASAPA***

***November 2021***

**P.O. BOX 73703  
LYNNWOOD RIDGE  
0040  
Tel: 083 459 3091  
Fax: 086 695 7247  
Email: [apac.heritage@gmail.com](mailto:apac.heritage@gmail.com)**

Member: AJ Pelser BA (UNISA), BA (Hons) (Archaeology), MA (Archaeology) [WITS]

**©Copyright**

**APELSE ARCHAEOLOGICAL CONSULTING**

**The information contained in this report is the sole intellectual property of APELSE Archaeological Consulting. It may only be used for the purposes it was commissioned for by the client.**

**DISCLAIMER:**

**Although all efforts are made to identify all sites of cultural heritage (archaeological and historical) significance during an assessment of study areas, the nature of archaeological and historical sites are as such that it is always possible that hidden or subterranean sites, features or objects could be overlooked during the study. APELSE Archaeological Consulting can't be held liable for such oversights or for costs incurred as a result thereof.**

**Clients & Developers should not continue with any development actions until SAHRA or one of its subsidiary bodies has provided final comments on this report. Submitting the report to SAHRA is the responsibility of the Client unless required of the Heritage Specialist as part of their appointment and Terms of Reference**

A handwritten signature in black ink, appearing to be 'J. de' or similar, located below the disclaimer text.

## SUMMARY

APelser Archaeological Consulting (APAC) was appointed by Prescali Environmental Consultants (Pty) Ltd, on behalf of Salene Manganese (Pty) Ltd, to conduct a Desktop-based Heritage Impact Assessment for their Salene Zeerust Prospecting Rights Application (PRA). The study and project area is situated on various farms in the Ramotshere Moiloa Magisterial District of the Northwest Province, north of the town of Zeerust and south of the Madikwe Game Reserve.

Background research indicates that there are a number of known cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls and that it is highly likely that similar sites & features will be present on the study and application area. This report discusses the results of the background research and provides recommendations on the way forward at the end.

**From a Cultural Heritage point of view it is however recommended that the proposed Salene Manganese Zeerust PRA be allowed to continue, taking into consideration the mitigation measures and recommendations put forward at the end of the report.**

## CONTENTS

1. INTRODUCTION .....	5
2. TERMS OF REFERENCE .....	5
3. LEGISLATIVE REQUIREMENTS .....	5
4. METHODOLOGY .....	9
5. DESCRIPTION OF THE AREA & PROJECT .....	9
6. DISCUSSION .....	14
7. CONCLUSIONS AND RECOMMENDATIONS .....	20
8. REFERENCES .....	21
APPENDIX A: DEFINITION OF TERMS: .....	23
APPENDIX B: DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE .....	24
APPENDIX C: SIGNIFICANCE AND FIELD RATING: .....	25
APPENDIX D: PROTECTION OF HERITAGE RESOURCES: .....	26
APPENDIX E: HERITAGE IMPACT ASSESSMENT PHASES .....	27

## 1. INTRODUCTION

APelser Archaeological Consulting (APAC) was appointed by Prescali Environmental Consultants (Pty) Ltd, on behalf of Salene Manganese (Pty) Ltd, to conduct a Desktop-based Heritage Impact Assessment for their Salene Zeerust Prospecting Rights Application (PRA). The study and project area is situated on various farms in the Ramotshere Moiloa Magisterial District of the Northwest Province, north of the town of Zeerust and south of the Madikwe Game Reserve.

Background research indicates that there are a number of known cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls and that it is highly likely that similar sites & features will be present on the study and application area.

The client indicated the location and boundaries of the study & application area and the assessment concentrated on this portion.

## 2. TERMS OF REFERENCE

The Terms of Reference for the study was to:

1. Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the portion of land that will be impacted upon by the proposed development;
2. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value;
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. Review applicable legislative requirements;

***It should be noted that No Field-Based Assessment was conducted as part of this Appointment and that the results and recommendations made in this report are based on the scrutiny of previous research and assessments in the area, as well as archival research and aerial images of the study area.***

## 3. 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).

### **3.1. The National Heritage Resources Act**

According to the Act 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 of scientific or technological value.

**The National Estate includes the following:**

- a. Places, buildings, structures and equipment of cultural significance
- b. Places to which oral traditions are attached or which are associated with living heritage
- c. Historical settlements and townscapes
- d. Landscapes and features of cultural significance
- e. Geological sites of scientific or cultural importance
- f. Sites of Archaeological and paleontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, paleontological, meteorites, geological specimens, military, ethnographic, books etc.)

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment (AIA) only looks at archaeological resources. An HIA must be done under the following circumstances:

- a. The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed 5 000m<sup>2</sup> or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m<sup>2</sup>
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

### **Structures**

Section 34 (1) of the Act states that no person may demolish any structure or part thereof which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

A structure means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

Alter means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

### **Archaeology, palaeontology and meteorites**

Section 35(4) of the Act deals with archaeology, palaeontology and meteorites and states that no person may, without a permit issued by the responsible heritage resources authority (National or Provincial):

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological 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 paleontological material or object, or any meteorite;
- d. bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and paleontological 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 (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.**

### **Human remains**

Graves and burial grounds are divided into the following:

- a. ancestral graves
- b. royal graves and graves of traditional leaders

- c. graves of victims of conflict
- d. graves designated by the Minister
- e. historical graves and cemeteries
- f. 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 to) 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)**.

### **3.2. 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.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.



## **4. METHODOLOGY**

### **4.1. Survey of literature**

A survey of available literature was undertaken in order to place the development area in an archaeological and historical context. The sources utilized in this regard are indicated in the bibliography.

### **4.2. Field survey**

The field assessment section of the study is normally conducted according to generally accepted HIA practices and aimed at locating all possible objects, sites and features of heritage significance in the area of the proposed development. The location/position of all sites, features and objects is determined by means of a Global Positioning System (GPS) where possible, while detail photographs are also taken where needed.

***No Field Work was undertaken as part of this Assessment.***

### **4.3. Oral histories**

People from local communities are sometimes interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all circumstances. When applicable, the information is included in the text and referred to in the bibliography.

### **4.4. Documentation**

All sites, objects, features and structures identified are documented according to a general set of minimum standards. 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.

## **5. DESCRIPTION OF THE AREA & PROJECT**

The study and Prospecting Rights Application Area is located on various farms and farm portions in the Ramotshere Moiloa Magisterial District of the Northwest Province, and north of the town of Zeerust & south of the Madikwe Game Reserve. Salene Manganese (Pty) Ltd is applying for a Prospecting Right over these areas and as part of this application Environmental Authorization is required. A Desktop Heritage Impact Assessment was requested as part of this.

There are three separate areas that form part of the PRA. The 1<sup>st</sup> is the area of Driekop 14JP, with the 2<sup>nd</sup> and 3<sup>rd</sup> ones termed the Northern and Southern areas respectively. The Northern area comprises the following farms:

1. Roodekopjesfontein 15JP

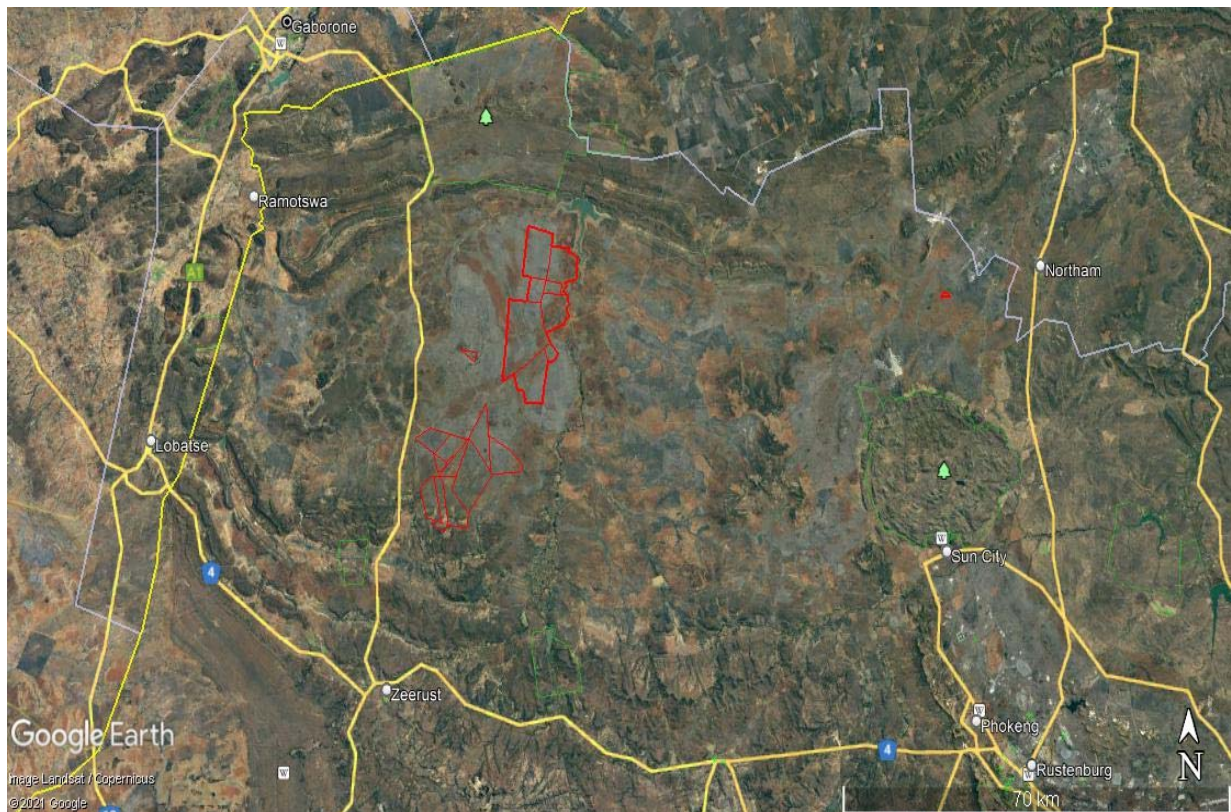
2. Zelikatskop 16JP
3. Knapdaar 26JP
4. Farm No.10 902JP
5. Schoonlaagte 935KP
6. Nooitgedacht 938KP
7. Barbed or Farm No.6 939KP
8. Leewkopje 952KP

The Southern Area comprises the following farms:

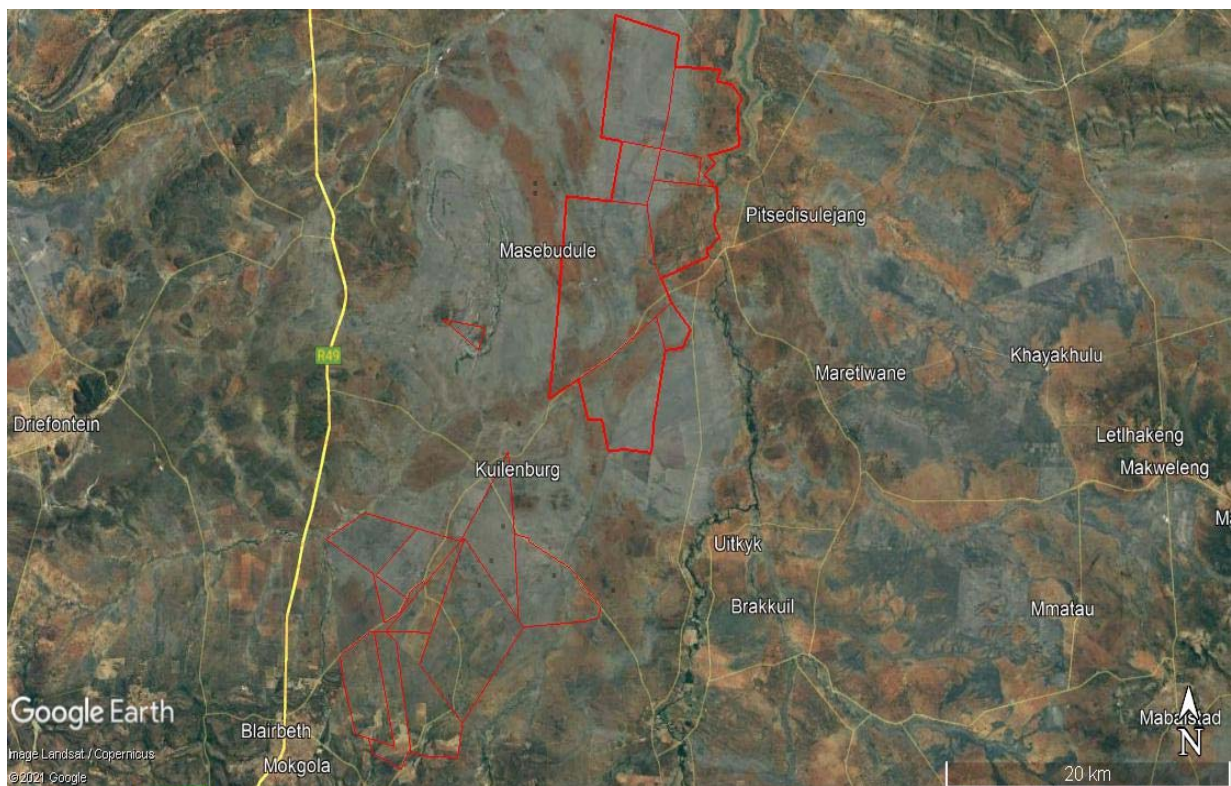
1. Magdalena's Kuil 37JP
2. Kuilenburg 39JP
3. Siglio 42JP
4. Doornlaagte 51JP
5. Metfordt Park 52JP
6. Vriendschap 53JP
7. Koedoespoort 64JP
8. Koedoespoort 68JP

The topography and general landscape of the study area can't be described from a personal observation perspective as no physical fieldwork was undertaken for this study. However, based on aerial images (Google Earth) of the various areas (farms & farm portions) some description is possible. The Driekop 14JP area has been fairly heavily disturbed already through mining activities (Marico Chrome Mine), while large sections of the other two areas have been altered and impacted through past and current agricultural actions that include ploughing/crop growing and livestock grazing. In general these areas have a fairly flat and open topography, although there are some rocky outcrops, ridges and small hills present.

The areas are also characterized by a Bushveld/Thornveld-type of landscape and vegetation, with sections not impacted by any development. It is assumed that these areas would be fairly densely vegetated. There is also some game farms located in the PRA area. A number of rivers, streams and their tributaries also run through these areas, some creating deep gullies and erosion dongas. These include the Madikwene, Kgabana La Thukhwi and Sehubyane. A few farmsteads and related homesteads are dotted across the areas, while formal and more informal settlements and townships are also located in and around the area.



**Figure 1: General location of the study & application areas in red polygons (Google Earth 2021).**



**Figure 2: A closer view of the location and footprints of the 3 areas (Google Earth 2021).**





**Figure 3: Closer view of the Driekop 14JP area (Google Earth 2021).**



**Figure 4: Closer view of the Southern area (Google Earth 2021).**



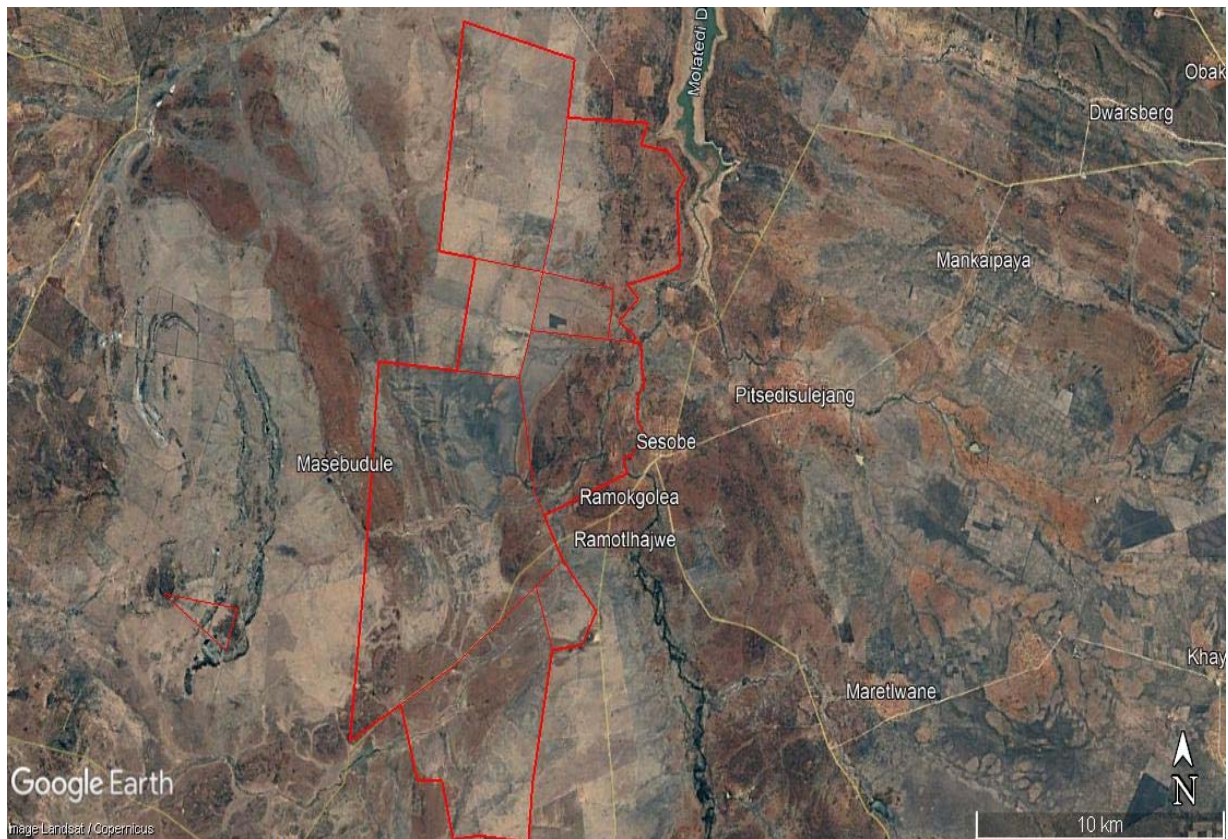


Figure 5: Closer view of the Northern Section (Google Earth 2021).

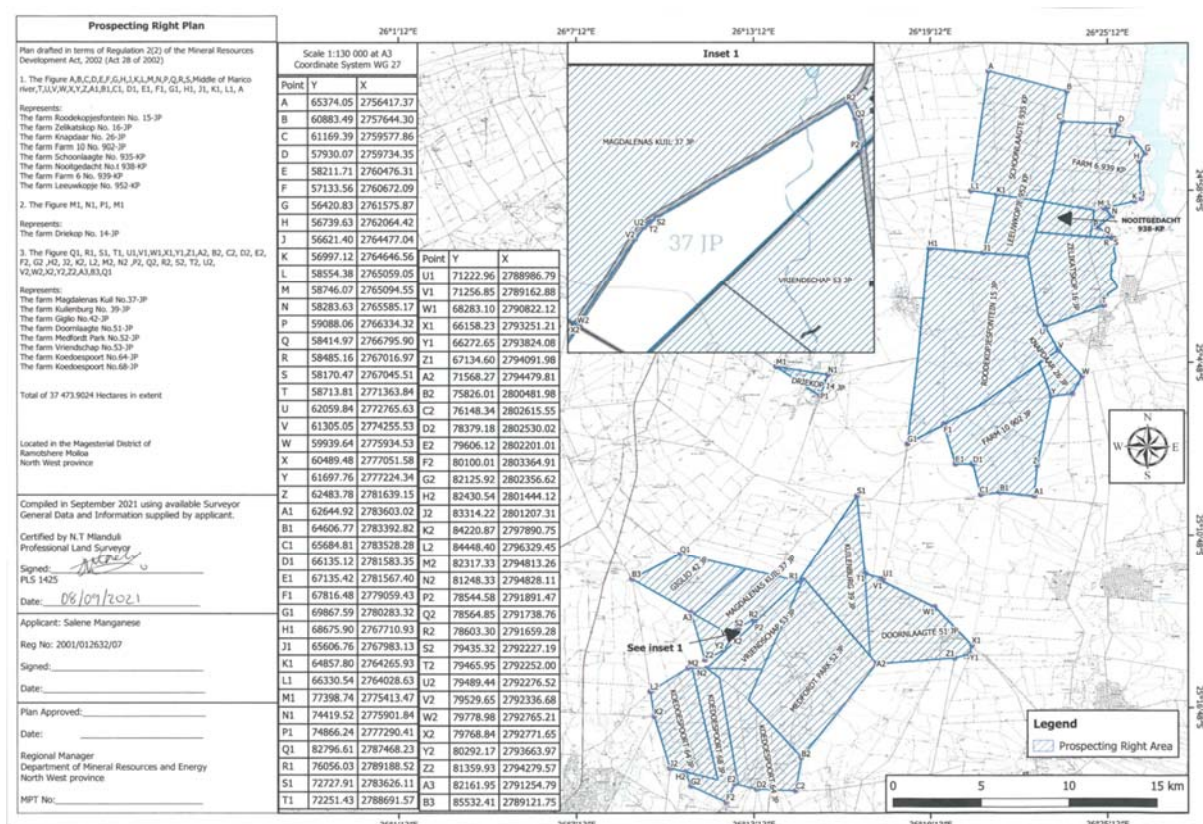


Figure 6: The Prospecting Rights Application Plan (courtesy Prescali Environmental Consultants (Pty) Ltd).

## 6. DISCUSSION

The Stone Age is the period in human history when lithic (stone) material was mainly used to produce tools. In South Africa the Stone Age can be divided into basically three periods. It is however important to note that dates are relative and only provide a broad framework for interpretation. A basic sequence for the South African Stone Age (Lombard et.al 2012) is as follows:

Earlier Stone Age (ESA) up to 2 million – more than 200 000 years ago

Middle Stone Age (MSA) less than 300 000 – 20 000 years ago

Later Stone Age (LSA) 40 000 years ago – 2000 years ago

It should also be noted that these dates are not a neat fit because of variability and overlapping ages between sites (Lombard et.al 2012: 125).

There are some known Stone Age sites in the study area, including rock art (engravings) sites located in the larger geographical area a few kilometers west of Zeerust and near Groot Marico to the east of Zeerust (Bergh 1999: 5). A number of individual MSA/LSA stone tools were also identified in the area of Zeerust during recent assessments by the author (Pelser 2013 & 2016).

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal artifacts. In South Africa it can be divided into two separate phases (Bergh 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.

In a band stretching roughly from Brits in the east to Zeerust in the west there are many known Iron Age sites (Bergh 1999: 7-8). These all belong to the Later Iron Age (Bergh 1999:8-9). No EIA sites are known to occur in the area (Bergh 1999: 6). By the end of the 18th century the Ba Hurutshe stone walled sites (capitals) were located at Kaditshwene and Tshwenyane north of Zeerust (Bergh 1999: 106). Prof. J.Boeyens of UNISA did extensive archaeological research on this and other sites in the region (Boeyens 2003). A number of Late Iron Age stone walled sites and features were also located during a recent assessment in the Zeerust area by the author (Pelser 2013: 15-16; 18-20).

During earlier times the area was settled by the Fokeng. In the 19th century this group inhabited this area with other Tswana groups including the Kwena and the Po (Bergh 1999:

9-10). During the *difaqane* these people moved further to the west, but they returned later on (Bergh 1999: 11).

Tom Huffman's research work shows that Iron Age sites, features or material could possibly be found in the area. This could include the so-called Uitkomst facies of the Urewe Tradition dating to between AD1650 and AD1820 (Huffman 2007: 171); Rooiberg facies of the same tradition dating to between AD1650 and AD1750 (p.175); Olifantspoort facies of Urewe dating to between AD1500 and AD1700 (p.191); the Madikwe facies of the Urewe Tradition dating to between AD1500 & AD1900 (p.193) and finally the Buispoort facies of the same tradition dating to between AD1700 and AD1840 (Huffman 2007: 203).

Early travelers have moved through this part of the Northwest Province. This included David Hume in 1825, Robert Scoon and William McLuckie in 1829 and Dr Robert Moffat and Reverend James Archbell in 1829 (Bergh 1999: 12, 117-119). Hume again moved through this area in 1830 followed by the expedition of Dr. Andrew Smith in 1835 (Bergh 1999: 13, 120-121). In 1836 William Cornwallis Harris visited the area. The well-known explorer Dr. David Livingstone passed through this area between 1841 and 1847 (Bergh 1999: 13, 119-122).

A number of battles were fought in the larger area during the Anglo-Boer War (1899-1902), including the battle of Kleinfontein on the 5th of September 1901 and the battle of Marico River on the 24th of October 1901 (Bergh 1999: 54).

With no physical field assessments conducted in the study and Prospecting Rights Area it is difficult to determine if any sites, features or material of cultural heritage origin or significance are located here and if there will be any impacts on such sites as a result of the planned prospecting and any resultant future mining. It needs to be mentioned here as well that large sections of the area have been extensively impacted by mining (Driekop 14JP), while others have been impacted heavily by recent past and current agricultural activities. If any sites, features or material of archaeological and/or historical origin and significance did exist in these specific areas it would have been substantially disturbed or destroyed as a result of these activities.

It is evident from the desktop study that archaeological/historical sites and finds do occur in the larger geographical landscape within which the specific study area is located. Based on this it is very possible that open-air Stone Age sites could be found in the area, especially in the form of varying densities of stone tool scatters around the many streams and rivers in the area. Erosion dongas caused by these are the likely areas that will host these types of sites. The possibility of Iron Age sites (especially stone-walled Late Iron Age sites) in the areas can also not be excluded, specifically close to and around rocky ridges and hills. Recent historical sites and features that could be present in the area includes historic farmsteads/homesteads and farm laborer houses. Informal farm cemeteries and more formal graveyards associated with these farmsteads and rural villages in and around the area is also a possibility. This could also include previously unknown and unmarked graves.



Google Earth images of the area were scrutinized to see if any possible sites or features are visible, and some could be identified from these. Although open-air Stone Age sites and material could obviously not be identified from these aerial images, various farmsteads and related structures, recent settlements, as well as Late Iron Age stone-walling (e.g. on Zelikatskop 16JP) could be recorded. This should only be seen as examples of the types of sites that could be present in the various application areas and it is highly likely that many similar sites are distributed throughout the study area. Dense vegetation cover would make many sites and features indiscernible from the aerial images, while the subterranean nature of archaeological and historical remains should always be taken in mind.

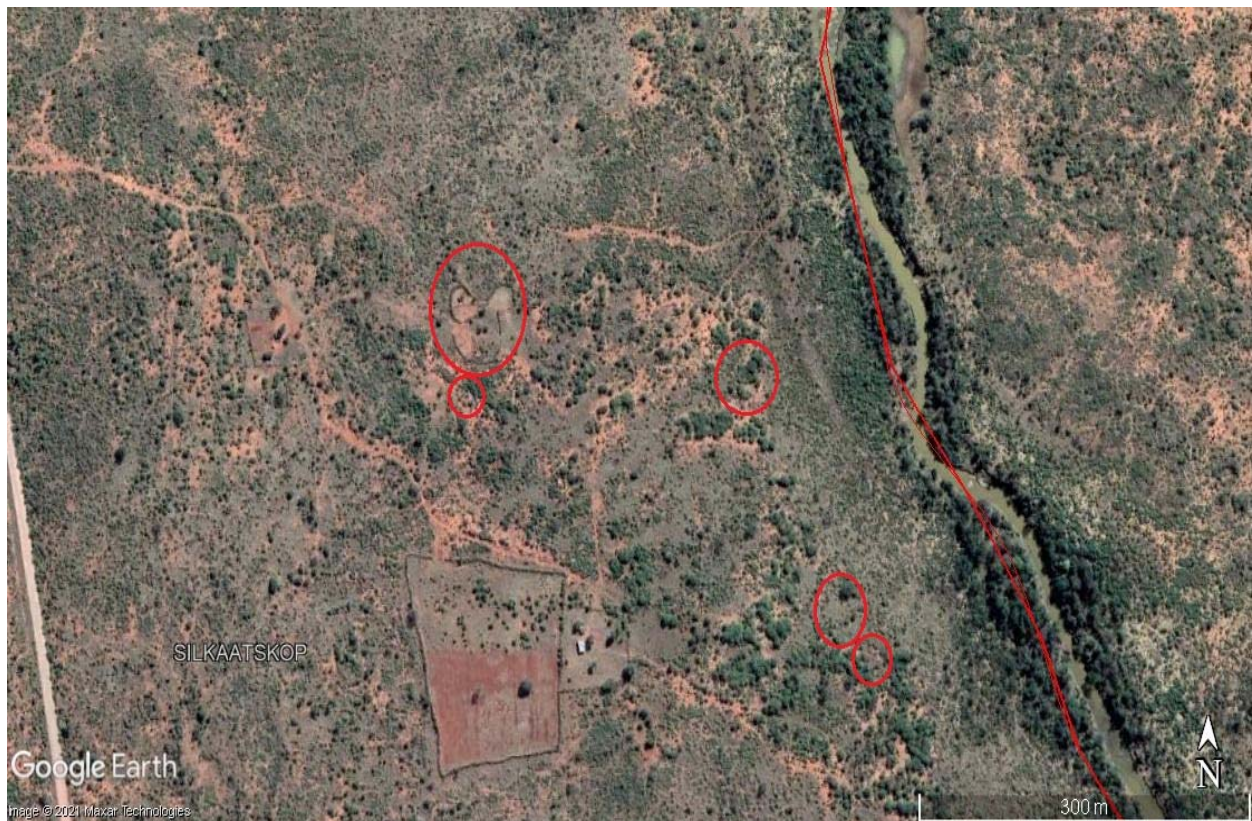


**Figure 7: The impact of fairly large-scale agricultural activities in the areas is evident from this image of Koedoespoort 64JP (Google Earth 2021). Similar agricultural impacts are also found on other farms in the area.**





**Figure 8: Structures related to recent farming activities are visible here on a portion of Zelikatskop 16JP (Google Earth 2021). With farmsteads/homesteads such as these the possibility of the close location of cemeteries & graves is always high.**



**Figure 9: This image is also from Zelikatskop 16JP. A recent (square) livestock enclosure is visible while the red circles indicate earlier and possible Late Iron Age stone-walled enclosures on the farm.**





**Figure 10: This settlement is on Doornlaagte 51JP (Google Earth). Although very recent the presence of a cemetery and unmarked graves close to the settlement needs to be taken into mind.**

Based on the desktop research and the Google Earth images studied the following can be concluded & recommended on the way forward:

1. That it is highly likely that sites, features or material of archaeological and/or historical origin or significance would be located in the study & Prospecting Rights Application areas. This could include open-air surface scatter of Stone Age tools as well as Late Iron Age stone-walled settlement sites and recent historical sites, structures and features related to farming in the area. Both formal and informal cemeteries, individual graves and previously unknown & unmarked graves could also be present.
2. That the proposed Salene Zeerust Prospecting Rights Application should be allowed to continue with the condition that once the detailed locations of Prospecting Boreholes and Trenches has been determined that detailed field-based assessments be carried out in these areas to determine the impacts of these activities on any possible cultural heritage (archaeological and/or historical) sites and remains. Any resultant proposed future mining activities and related developments and operations will have to then be assessed as well.

## **7. CONCLUSIONS AND RECOMMENDATIONS**

APelser Archaeological Consulting (APAC) was appointed by Prescali Environmental Consultants (Pty) Ltd, on behalf of Salene Manganese (Pty) Ltd, to conduct a Desktop-based Heritage Impact Assessment for their Salene Zeerust Prospecting Rights Application (PRA). The study and project area is situated on various farms in the Ramotshere Moiloa Magisterial District of the Northwest Province, north of the town of Zeerust and south of the Madikwe Game Reserve.

There are three separate areas that form part of the PRA. The 1st is the area of Driekop 14JP, with the 2nd and 3rd ones termed the Northern and Southern areas respectively.

Background research indicates that there are a number of known cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls and that it is highly likely that similar sites & features will be present on the study and application area. With no physical field assessments conducted in the study and Prospecting Rights Area it is difficult to determine if any sites, features or material of cultural heritage origin or significance are located here and if there will be any impacts on such sites as a result of the planned prospecting and any resultant future mining.

Sections of the area have been extensively impacted by mining, while others have been impacted heavily by recent past and current agricultural activities. If any sites, features or material of archaeological and/or historical origin and significance did exist in these specific areas it would have been substantially disturbed or destroyed as a result of these activities.

From the desktop study it is clear that archaeological and historical sites and finds do occur in the larger geographical landscape within which the study area is situated. It is therefore very possible that open-air Stone Age sites could occur in the area, especially in the form of open-air surface scatters of stone tool around streams and rivers in the area. Erosion dongas caused by these are the likely areas that will host these types of sites. The possibility of stone-walled Late Iron Age sites in the areas can also not be excluded, specifically close to and around rocky ridges and hills. Recent historical sites and features that could be present in the area includes historic farmsteads/homesteads and farm laborer houses. Informal farm cemeteries and more formal graveyards associated with these and rural villages in and around the area is also a possibility. This could also include previously unknown and unmarked graves.

Although open-air Stone Age sites and material cannot be identified from aerial images (Google Earth) of the area, various farmsteads and related structures, recent settlements, as well as Late Iron Age stone-walling was evident in some areas. This should only be seen as examples of the types of sites that could be present in the various application areas and it is highly likely that many similar sites are distributed throughout the study area. Dense vegetation cover would make many sites and features indiscernible from the aerial images, while the subterranean nature of archaeological and historical remains should always be taken in mind.

Finally, based on the desktop research and the Google Earth images studied the following can be concluded & recommended on the way forward:

1. **That it is highly likely that sites, features or material of archaeological and/or historical origin or significance would be located in the study & Prospecting Rights Application areas. This could include open-air surface scatter of Stone Age tools as well as Late Iron Age stone-walled settlement sites and recent historical sites, structures and features related to farming in the area. Both formal and informal cemeteries, individual graves and previously unknown & unmarked graves could also be present.**
2. **That the proposed Salene Zeerust Prospecting Rights Application should be allowed to continue with the condition that once the detailed locations of Prospecting Boreholes and Trenches has been determined that detailed field-based assessments be carried out in these areas to determine the impacts of these activities on any possible cultural heritage (archaeological and/or historical) sites and remains. Any resultant proposed future mining activities and related developments and operations will have to then be assessed as well.**

## **8. REFERENCES**

General and closer views of Study Area locations and footprints Google Earth 2021.

Prospecting Rights Application Plan: Provided by Prescali Environmental Consultants (Pty) Ltd.

Bergh, J.S. (red.). 1999. **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies**. Pretoria: J.L. van Schaik.

**Boeyens, J.C.A. 2003.** The Late Iron Age Sequence in the Marico and Early Tswana History. **The South African Archaeological Bulletin, Vol. 58, No. 178 (Dec., 2003), pp. 63-78.** South African Archaeological Society

Huffman, T.N. 2007. Handbook to the Iron Age: **The Archaeology of Pre-Colonial Farming Societies in Southern Africa**. Scottsville: University of KwaZulu-Natal Press.

Knudson, S.J. 1978. **Culture in retrospect**. Chicago: Rand McNally College Publishing Company.

Lombard, M., L. Wadley, J. Deacon, S. Wurz, I. Parsons, M. Mohapi, J. Swart & P. Mitchell. 2012. **South African and Lesotho Stone Age Sequence Updated (I)**. South African Archaeological Bulletin 67 (195): 120–144, 2012.

Pelser, A.J. 2013. **Integrated Heritage Impact Assessment (HIA) Report for a proposed 75MW Photovoltaic Solar Facility on the Remainder of Kameeldoorn 271JP, Portion 15 of Kammeldoorn 271JP & Portion 14 of Kruisrivier 270JP, Zeerust, Northwest Province.**

Unpublished Report APELSER ARCHAEOLOGICAL CONSULTING cc. APAC013/64 October 2013. For: Sharples Environmental Services cc.

Pelser, A.J. 2016. **Baseline Assessment & Heritage Impact Assessment Report for the RE Capital 2 proposed 75MW Photovoltaic Solar Facility on portions of the farms Kameeldoorn 271JP & Kruisrivier 270JP, including the NEW Alternative Expansion Areas, Zeerust, Northwest Province.** Unpublished Report APELSER ARCHAEOLOGICAL CONSULTING cc. APAC016/18. For: Atlantic Renewable Energy Partners (Pty) Ltd. April 2016.

Republic of South Africa. 1999. **National Heritage Resources Act** (No 25 of 1999). Pretoria: the Government Printer.

Republic of South Africa. 1998. **National Environmental Management Act** (no 107 of 1998). Pretoria: The Government Printer.

## **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 coincidental find of movable cultural objects.

**Object:** Artifact (cultural object).

(Also see Knudson 1978: 20).

## **APPENDIX B: DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE**

**Historic value:** Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.

**Aesthetic value:** Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.

**Scientific value:** Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period

**Social value:** Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

**Rarity:** Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.

**Representivity:** Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.



## **APPENDIX C: SIGNIFICANCE AND FIELD RATING:**

### **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.

### **Heritage significance:**

- Grade I: Heritage resources with exceptional qualities to the extent that they are of national significance
- Grade II: Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate
- Grade III: Other heritage resources of local importance and therefore worthy of conservation

### **Field ratings:**

- i. National Grade I significance: should be managed as part of the national estate
- ii. Provincial Grade II significance: should be managed as part of the provincial estate
- iii. Local Grade IIIA: should be included in the heritage register and not be mitigated (high significance)
- iv. Local Grade IIIB: should be included in the heritage register and may be mitigated (high/medium significance)
- v. General protection A (IV A): site should be mitigated before destruction (high/medium significance)
- vi. General protection B (IV B): site should be recorded before destruction (medium significance)
- vii. General protection C (IV C): phase 1 is seen as sufficient recording and it may be demolished (low significance)

## **APPENDIX D: PROTECTION OF HERITAGE RESOURCES:**

### **Formal protection:**

National heritage sites and Provincial heritage sites – Grade I and II

Protected areas - An area surrounding a heritage site

Provisional protection – For a maximum period of two years

Heritage registers – Listing Grades II and III

Heritage areas – Areas with more than one heritage site included

Heritage objects – e.g. Archaeological, palaeontological, meteorites, geological specimens, visual art, military, numismatic, books, etc.

### **General protection:**

Objects protected by the laws of foreign states

Structures – Older than 60 years

Archaeology, palaeontology and meteorites

Burial grounds and graves

Public monuments and memorials

## **APPENDIX E: HERITAGE IMPACT ASSESSMENT PHASES**

1. Pre-assessment or Scoping Phase – Establishment of the scope of the project and terms of reference.
2. Baseline Assessment – Establishment of a broad framework of the potential heritage of an area.
3. Phase I Impact Assessment – Identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.
4. Letter of recommendation for exemption – If there is no likelihood that any sites will be impacted.
5. Phase II Mitigation or Rescue – Planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
6. Phase III Management Plan – For rare cases where sites are so important that development cannot be allowed.