

March 2013

First phase archaeological and cultural heritage assessment of the proposed residential developments next to and on portions of plots 52 and 38. Orania,

District: Hopetown, Province: Northern Cape.



Prepared for

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## **EXECUTIVE SUMMARY**

The owner, Dr Ben de Klerk of Lavental Trust, intends residential development on portions of plots 52 and 38 Orania. Archaeological evidence of human occupation occurs in the form of scatters of Stone Age lithic materials, as well as prehistoric and historic engravings and graffiti on the dolerite rocks of the hills overlooking the Orange River. The proposed housing scheme could influence the preservation of such remains. The aim of this study is to determine the localities of cultural materials and assess the extent of impact of the development on it. The owner expressed his willingness to cooperate with recommendations for the future management of the archaeological remains and to adapt the development plan accordingly

### **1. INTRODUCTION**

The owner, Dr Ben de Klerk, intends upmarket residential development on portions of plots 52 and 38 Orania. An EIA is required and Terra Works Environmental Consultants Bloemfontein was contracted.

This report is done in terms of the National Heritage Resources Act (25 of 1999) and will be part of the EIA.

The study area is located in the conservancy of Orania. The owner is committed to the protection of the environment, archaeological and cultural remains.

### **2. STUDY METHODOLOGY**

The area earmarked for development was investigated on foot by a twoperson team. Finds were plotted by GPS and recorded on camera.

Use was made of Dr David Morris of the McGregor Museum Kimberley for advice onsite and reports\publications from the area. This study is the first survey of rock art in Orania and its vicinity.

Note was taken of a cultural heritage study by Opperman (2012), a paleontological impact assessment by Rossouw (2012) for the adjacent farm Vluytjeskraal-Noord and a study by ESKOM (2006) as part of an environmental scoping report.

The results were used to identify the localities of cultural materials which may be endangered by the proposed development and to make recommendations. No historical buildings or paleontological materials were observed.

### 3. LOCALITY

The study area is located on a hill, overlooking the Orange River, on the north - eastern border of Orania which is situated on the R369 some 38km south – east of Hopetown (Annexure A and B). There is a pecan nut plantation at the foot of the hill and also a modern house, which is the residence of the owner, and outbuildings.

The climate is harsh semi- desert. The vegetation is Karoo with a semi-arid grassy shrub land (Naude 2013) (Annexure C). The rocks are dolerite, derived from dykes, on top of the Karoosupergroup (Parkington et al 2008).

### 4. FINDINGS

All GPS co-ordinates for the finds are on the maps and in attached shape file (GIS format) (Decimal degrees) (Annexure D and E) The following archaeological materials were found in the area of the proposed development:

#### 4.1 Artefacts

Sporadic surface finds of Stone Age artefacts occur with a low intensity of distribution. These are water washed materials from hornfels with a brown patina. Undiagnostic Stone Age materials, likely Later Stone Age, are present, in association with engravings as well as a Middle Stone Age component which is indicated by blade flakes with a small striking platform and pointed flakes with stepped flaking on the dorsal side (Annexure F), (See Annexure D findings 9 and 10)

#### 4.2 Engravings

Seventeen rock engravings were recorded by GPS within the area indicated for development (Annexure E). These included both Stone Age engravings (15) and historical graffiti.

The techniques used by the Stone Age engravers are similar to that used in the Karoo (Morris 1988) i.e. mostly pecking and scraping. Fine line technique is absent but does occur elsewhere in Orania. Pecking was used for outlining the subject and filling it in partially or completely. The degree of patination varied with the eland engravings (6) totally patinated.

**5. RECORDED ENGRAVINGS** (Annexure G1-19) (Refer to Annexure D for locations of engravings)

Engraving 1. Unidentified antelope adjacent to a human figure, patinated. (Annexure G1)

Engraving 2. Eland, pecked technique, patinated (Annexure G1)

Engraving 3. Eland, a fine engraving, pecked technique, patinated (Annexure G2)

Engraving 4. Equid? The animal is almost invisible on a photograph (Annexure G2)

Engraving 5. Aardvark? Only pecked outline (Annexure G3)

Engraving 6. Hindquarters of an antelope, pecked technique (Annexure G3)

Engraving 7. Eland, large with pecked outline (Annexure G4)

Engraving 8. Eland, pecked outline is indistinct (Annexure G4)

Engraving 11. Three scraped human figures with hats and long dresses (historical) (Annexure G5)

Engraving 12. The animal is almost invisible on a photograph (Annexure G5)

Engraving 13. Eland? Scraped and heavily patinated (Annexure G5)

Engraving 14. Ostrich, scraped and lightly patinated (Annexure G6)

Engraving 15. Antelope? (Annexure G6)

Engraving 16. Graffiti, Oorlog - Vrede 1902, scratched (Annexure G7)

Engraving 17. Graffiti, Sara wil frek oer Willem (Old Afrikaans) (Annexure G7)

Engraving 18. Eland, scraped, patinated (Annexure G8)

Engraving 19. Equid? Infill by pecking (Annexure G8)

## 6. ASSESSMENT OF IMPACT

The residential development will negatively affect the following cultural aspects:

6.1. Stone Age artefact distributions. These are thin and sporadic finds in secondary context. The impact will be low. There are larger and denser concentrations of MSA artefacts in Orania and on Vluytjeskraal-Noord an adjacent farm. (Opperman 2012).

6.2. Engravings. The rock art in the study area is an extension of a larger collection of engravings and graffiti on the adjacent hill on the eastern side (Opperman 2011). The cultural remains are important and needs protection. All the engravings located are inside or next to the plots of the residential development. The owner has agreed to adapt the development plan to accommodate the engravings. If managed correctly the development will benefit from the presence of the archaeological remains.

## 7. MITIGATION MEASURES

A management plan must be drawn up for the protection of the engravings. This must include appropriate fencing and access control and meet SAHRA'S requirements.

## 8. RECOMMENDATIONS

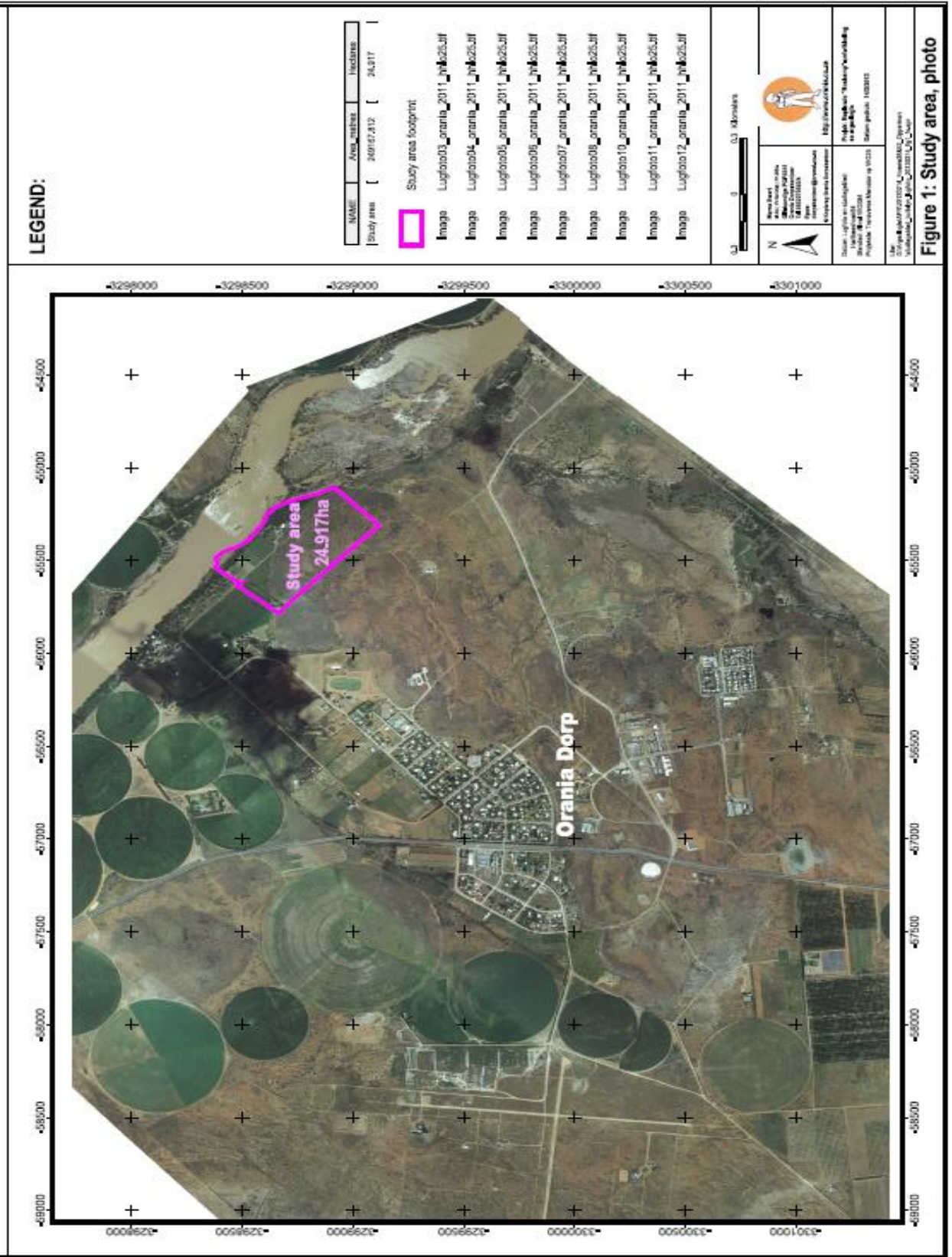
I recommend that, depending on the finds of other specialists, the proposed developments may proceed.

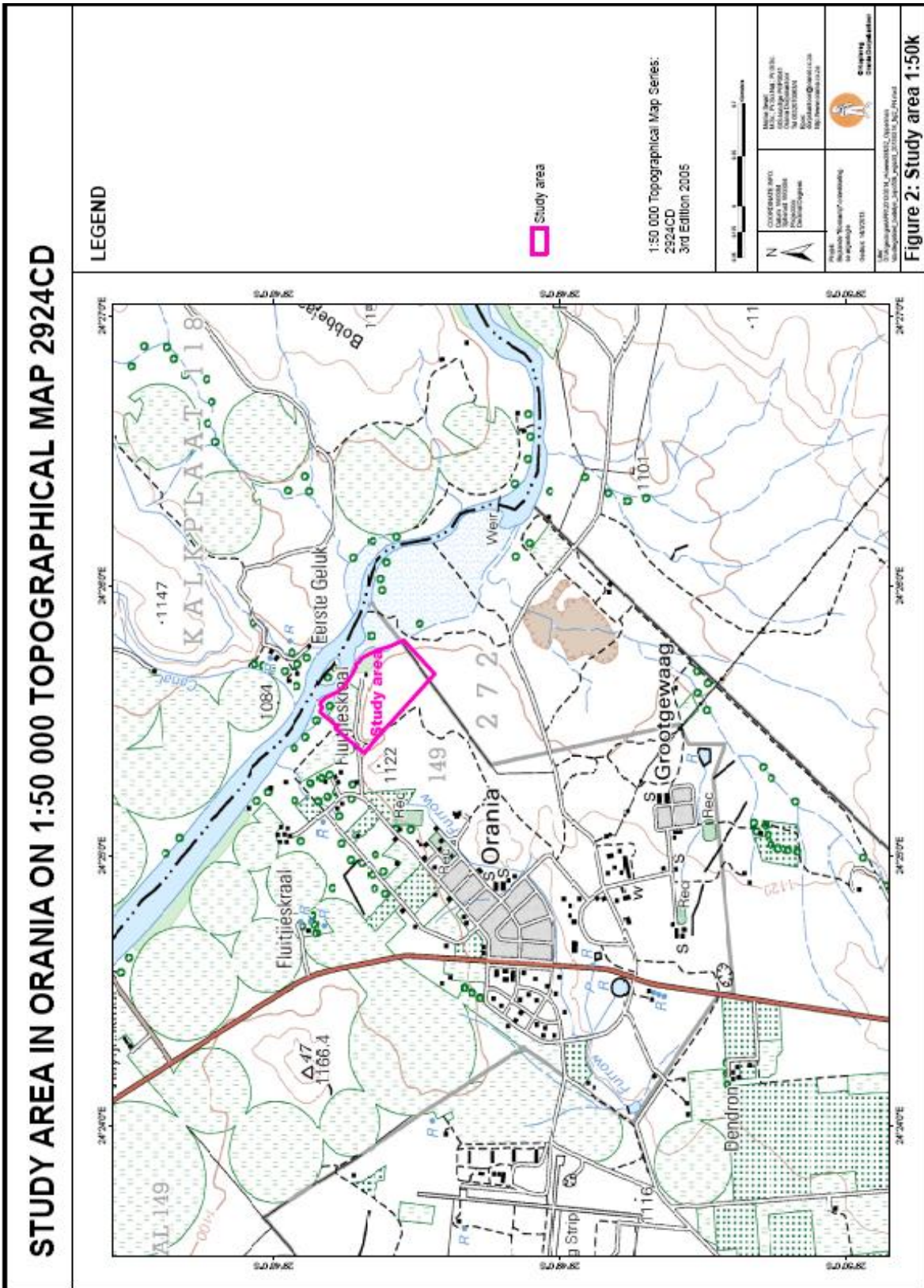
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STUDY AREA IN ORANIA ON AERIAL PHOTOS OF 27/2/2011









**VEGETATION OF THE STUDY AREA**



# LOCATION OF ARCHAEOLOGICAL FINDINGS in TOPOGRAPHY ON PLOTS 38 & 52 AND ADJACENT AREA

## LEGEND:

Plot borders

Plot No.	Plot Area
H038	3.208
H052	5.700
Adjacent area	3.267

Artificial  
Engineering

Layer Name	Type	Symbol	Color	Z-value
Engineering	Point	Small Circle	White	448994.00
Engineering	Point	Small Circle	White	448995.00
Engineering	Point	Small Circle	White	448996.00
Engineering	Point	Small Circle	White	448997.00
Engineering	Point	Small Circle	White	448998.00
Engineering	Point	Small Circle	White	448999.00
Engineering	Point	Small Circle	White	449000.00
Engineering	Point	Small Circle	White	449001.00
Engineering	Point	Small Circle	White	449002.00
Engineering	Point	Small Circle	White	449003.00
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Engineering	Point	Small Circle	White	449017.00
Engineering	Point	Small Circle	White	449018.00
Engineering	Point	Small Circle	White	449019.00
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Engineering	Point	Small Circle	White	449021.00
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Engineering	Point	Small Circle	White	449024.00
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Engineering	Point	Small Circle	White	449056.00
Engineering	Point	Small Circle	White	449057.00
Engineering	Point	Small Circle	White	449058.00
Engineering	Point	Small Circle	White	449059.00
Engineering	Point	Small Circle	White	449060.00

## Contours in 0.5m intervals:

- 1079 – 1080.5
- 1080.5 – 1100.5
- 1100.5 – 1112
- 1112 – 1126
- 1126 – 1138

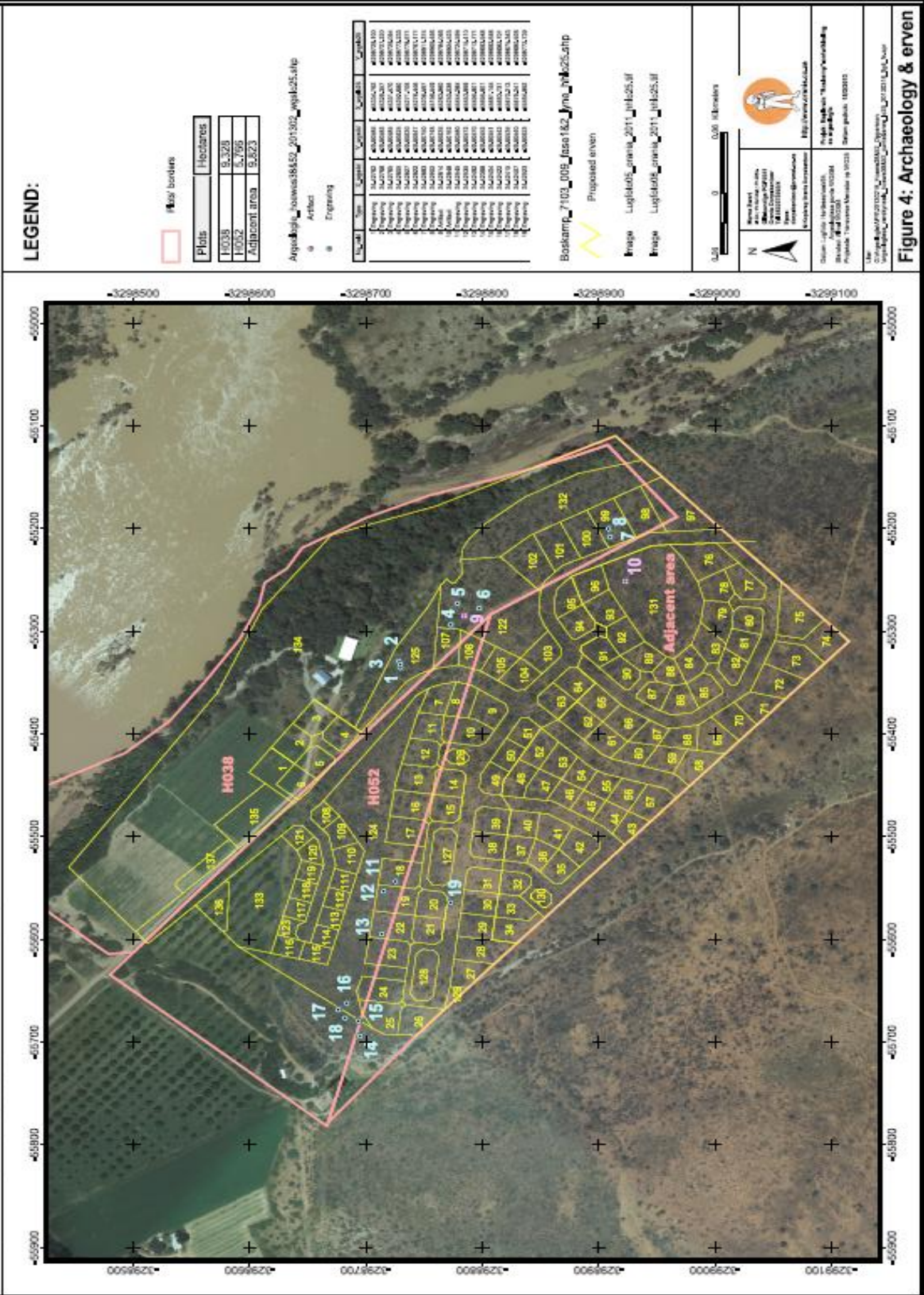


Scale: 0.5m	Scale: 0.5m
North Arrow	North Arrow
Project Name: Archaeological Findings on Plots 38 & 52 and Adjacent Area	Project Name: Archaeological Findings on Plots 38 & 52 and Adjacent Area
Client: Archaeological Survey of India	Client: Archaeological Survey of India
Prepared by: [Name]	Prepared by: [Name]
Date: [Date]	Date: [Date]

Figure 3: Topography



**LOCATION OF ARCHAEOLOGICAL FINDINGS into PLANNED DEVELOPMENT ON PLOTS 38 & 52 AND ADJACENT AREA**





**Middle Stone Age artefacts**





**ENGRAVING 1. Unidentified antelope adjacent to a human figure, patinated.**



**ENGRAVING 2. Eland, pecked technique, patinated.**





**ENGRAVING 3. Eland, a fine engraving, pecked technique, patinated.**

**ENGRAVING 4. Equid? The animal is almost invisible on a photograph.**





**ENGRAVING 5. Aardvark? Only pecked outline.**



**ENGRAVING 6. Hindquarters of an antelope, pecked technique.**





**ENGRAVING 7. Eland, large with pecked outline.**



**ENGRAVING 8. Eland, pecked outline indistinct, patinated.**





**ENGRAVING 11. Three scraped human figures with hats and long dresses (historical).**

**ENGRAVING 12. The animal is almost invisible on a photograph.**



**ENGRAVING 13. Eland? Scraped and heavily patinated.**



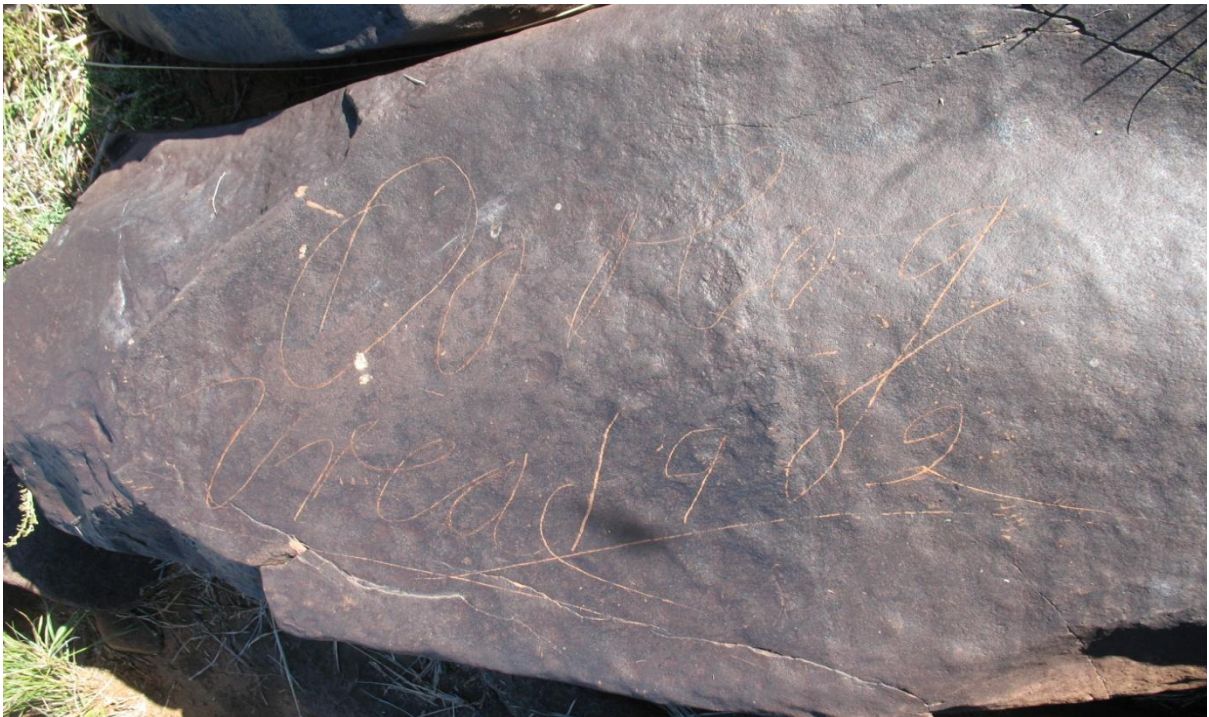


ENGRAVING 14. Ostrich, scraped and lightly patinated.



ENGRAVING 15. Antelope?





ENGRAVING 16. Graffiti, Oorlog - Vrede 1902, scratched.



ENGRAVING 17. Graffiti, Sara wil frek oer Willem (Old Afrikaans).





ENGRAVING 18. Eland, scraped, patinated.



ENGRAVING 19. Equid? Infill by pecking.