



PGS HERITAGE

MITIGATION PERMIT – INTERIM REPORT

**Phase 2 archaeological mitigation on sites TCHR6-TCHR10
(TFHM5-1 - TFHM5-6) for the Samancor Tubatse Ferrochrome
Smelter Plant, Fetakgomo Local Municipality, Sekhukhune
District Municipality, Limpopo Province**

Issue Date: 31 August 2023

Revision No.: 1

Project No.: 626HM

SAHRA Permit Number: 3647

SAHRA Case Nr: 18977

**PGS
HERITAGE**



+27 (0) 12 332 5305



+27 (0) 86 675 8077



contact@pgsheritage.co.za



PO Box 32542, Totiusdal, 0134

Offices in South Africa, Kingdom of Lesotho and Mozambique

Head Office:
906 Bergarend Streets
Waverley, Pretoria,
South Africa

Directors: HS Steyn, PD Birkholtz, W Fourie



Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR6-10 – Interim report	1.0	31/08/2023	Page ii

REVISION HISTORY

Version	Issue Date	Description of Changes
01	31 August 2023	First draft

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR6-10 – Interim report	1.0	31/08/2023	Page iii

ACKNOWLEDGEMENT OF RECEIPT

Report Title	MITIGATION PERMIT – INTERIM REPORT Phase 2 archaeological mitigation on sites TCHR6 and TCHR10 (TFHM5-1 to TFHM5-6) for the Samancor Tubatse Ferrochrome Smelter Plant, Fetakgomo Local Municipality, Sekhukhune District Municipality, Limpopo Province		
Control	Name	Signature	Designation
Author	Wouter Fourie		Principal Investigator Project Manager;
Co-author	Tyron Hopf		Archaeologist

CLIENT: Royal HaskoningDHV (Pty) Ltd

CONTACT PERSON: Prashika Reddy
Email: prashika.reddy@rhdhv.com

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR6-10 – Interim report	1.0	31/08/2023	Page iv

EXECUTIVE SUMMARY

PGS obtained an excavation permit from the SAHRA to collect a representative sample of the archaeological material associated with sites **TCHR4-10** for analysis to provide a record of temporal localisation, material cultural affiliation, and layout of the settlements located within each area.

A representative sample was recovered for the cultural deposits on sites **TCHR4** and **TCHR10**. The recovered archaeological data consists of material culture such as decorated pottery, faunal material, stone tools and implements, and recordings of architectural features and site plans. The recovered material is being processed at the PGS laboratory at the University of Pretoria for curation.

A report for the destruction of sites **TCHR4** and **TCHR5** was submitted in December 2022 and the subsequent destruction permit was issued under **CaseID: 20280, PermitID: 3864**.

This report covers the destruction application **TCHR6-10**.

Due to the extent of post-processing of material, this interim report is submitted as backing for the destruction application to be submitted by Tubatse Ferrochrome to ensure that the proposed construction activities can start on PV Site 5, where the archaeological complexes of **TCHR6** to **TCHR10** are situated. It is our opinion that the destruction process can continue with the backing of a SAHRA permit and the implementation of the recommendation below:

Destruction Methodology

It is recommended that during the destruction of these sites (**TCHR6** to **TCHR10**), archaeologists monitor the earthworks. This procedure was also proposed for TCHR4 and 5 and as such accepted in Permit: 3864.

The destruction process will follow the process as set out below:

- An archaeologist will be appointed to monitor the physical destruction work on site. It is envisaged that this senior archaeologist will manage a team of archaeologists and field technicians that will be during the destruction process;
- Site clearing will start with the removal of vegetation with suitable heavy machinery that could include bulldozers and TLB machines;
- The clearing will be done in a controlled and systematic strip manner;

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR6-10 – Interim report	1.0	31/08/2023	Page v

- After clearance of the vegetation, it is recommended that a grader is used to strip the topsoil in 20-30cm layers (this is dependent on the soil and subsurface conditions).
- If any archaeological material is found, the work will be stopped in the specific area of finds until the material can be recovered under the current s 35 permit conditions.
- All recovery work will be done according to SAHRA and ASAPA standards and will follow the archaeological process as already contained in **Permit CaseID: 18977, PermitID:3647.**
- As reported in this document, the recovered material will be included in the bulk samples collected from the excavation and sampling process.
- A final destruction report will be submitted on completion of the works to SAHRA.

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR6-10 – Interim report	1.0	31/08/2023	Page vi

TABLE OF CONTENT

1	INTRODUCTION	12
2	AIMS AND OBJECTIVES	12
2.1	Specialist Qualifications	12
3	LOCATION	13
4	BACKGROUND	14
5	DESCRIPTION OF AREA	15
6	METHODOLOGY	17
6.1	Specific mitigation techniques – Iron Age Sites:	17
6.2	Specific mitigation techniques – Stone Age Sites:	17
6.3	Excavation Methodology expanded on site	18
7	EXCAVATION	19
8	TFHM SITE 5 (TCHR6-10)	19
8.1	TCHR6	19
8.2	TCHR7 – TFHM5.9 - Documentation of structures	19
8.3	TCHR8 – Excavation TFHM 5.4	22
8.4	TCHR8 – Excavation TFHM 5.6	24
8.5	TCHR9 – Excavation TFHM 5.12	26
	8.5.1 Material retrieved	28
8.6	TCHR10 – Excavation TFHM 5.1	32
	8.6.1 Trench I	32
9	MATERIAL RETRIEVED	35
10	CONCLUSION	38
10.1	Destruction Methodology	38

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR6-10 – Interim report	1.0	31/08/2023	Page vii

List of Figures

<i>Figure 1 – Locality map showing the site alternatives for development.....</i>	<i>14</i>
<i>Figure 2 – Locality of the heritage resource in site 5 (TCHR6-10).....</i>	<i>16</i>
<i>Figure 3 – Locality of THFM5.9 in relation to the larger TCHR7.....</i>	<i>21</i>
<i>Figure 4 - Locality of TFHM5.4.....</i>	<i>22</i>
<i>Figure 5 – TFHM 5.4 – View of the cleared structure</i>	<i>23</i>
<i>Figure 6 – TFHM 5.4 Plan drawing of the structure</i>	<i>23</i>
<i>Figure 7 - Locality of TFHM5.6.....</i>	<i>24</i>
<i>Figure 8 – TFHM 5.6 – Cleared stone feature.</i>	<i>25</i>
<i>Figure 9 – TFHM 5.6 – Stone-lined feature</i>	<i>25</i>
<i>Figure 10 – Locality of the mitigation point within TCHR9</i>	<i>26</i>
<i>Figure 11 – View of excavation site TFHM5.12</i>	<i>27</i>
<i>Figure 12 – View of excavation site TFHM5.12 at elevation.....</i>	<i>27</i>
<i>Figure 13 – View of test pit at excavation site TFHM5.12.....</i>	<i>28</i>
<i>Figure 14 - heat map of lithic distribution at THFM5.12</i>	<i>29</i>
<i>Figure 15 - Lithics from square B2 and B3</i>	<i>30</i>
<i>Figure 16 - Lithics from square C3 and A2</i>	<i>30</i>
<i>Figure 17 - Lithics from square C2 and E1</i>	<i>31</i>
<i>Figure 18 - Locality of mitigation point within TCHR10.....</i>	<i>32</i>
<i>Figure 19 – TFHM 5.1 layer 3 before exposing the hut floor to the west.....</i>	<i>33</i>
<i>Figure 20 – TFHM 5.1 – Ceramic concentration on hut floor.....</i>	<i>33</i>
<i>Figure 21 – TFHM 5.1 layer 3 – visible hut floor</i>	<i>34</i>
<i>Figure 22 - Plan drawing of THFM5.1 hut.....</i>	<i>35</i>
<i>Figure 23 - Ceramics retrieved form surface collections and test pits close to THFM5.1 and 5.4</i>	<i>36</i>
<i>Figure 24 – Diagnostic of decorated ceramics retrieved during a site investigation</i>	<i>37</i>
<i>Figure 25 - Decorated ceramic bowl retrieved from test trench.</i>	<i>37</i>

List of Tables

<i>Table 1 – List of abbreviations used in this report</i>	<i>xi</i>
<i>Table 2 - Lithics retrieved for analysis</i>	<i>28</i>
<i>Table 3 -Artefacts retrieved for analysis.</i>	<i>35</i>

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR6-10 – Interim report	1.0	31/08/2023	Page viii

List of Appendices

- A *SAHRA Permits*
- B *Project archaeologist CV*

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR6-10 – Interim report	1.0	31/08/2023	Page ix

TERMINOLOGY AND ABBREVIATIONS

Archaeological resources

This includes:

- material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years including artefacts, human and hominid remains and artificial features and structures;
- rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10m of such representation;
- wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the republic as defined in the Maritimes Zones Act, and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation;
- features, structures and artefacts associated with military history which are older than 75 years and the site on which they are found.

Cultural significance

This means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance

Development

This means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of the heritage authority in any way result in a change to the nature, appearance or physical nature of a place or influence its stability and future well-being, including:

- construction, alteration, demolition, removal or change in use of a place or a structure at a place;
- carrying out any works on or over or under a place;
- subdivision or consolidation of land comprising a place, including the structures or airspace of a place;
- constructing or putting up for display signs or boards;
- any change to the natural or existing condition or topography of land; and
- any removal or destruction of trees, or removal of vegetation or topsoil

Early Stone Age

The archaeology of the Stone Age between 700 000 and 3 300 000 years ago.

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR6-10 – Interim report	1.0	31/08/2023	Page x

Heritage

That which is inherited and forms part of the National Estate (historical places, objects, fossils as defined by the National Heritage Resources Act 25 of 1999).

Heritage resources

This means any place or object of cultural significance and can include (but not limited to) as stated under Section 3 of the NHRA,

- places, buildings, structures and equipment of cultural significance;
- places to which oral traditions are attached or which are associated with living heritage;
- historical settlements and townscapes;
- landscapes and natural features of cultural significance;
- geological sites of scientific or cultural importance;
- archaeological and palaeontological sites;
- graves and burial grounds, and
- sites of significance relating to the history of slavery in South Africa;

Holocene

The most recent geological time period which commenced 10 000 years ago.

Late Stone Age

The archaeology of the last 30 000 years associated with fully modern people.

Late Iron Age (Early Farming Communities)

The archaeology of the last 1000 years up to the 1800's, associated with iron-working and farming activities such as herding and agriculture.

Middle Stone Age

The archaeology of the Stone Age between 30 000-300 000 years ago, associated with early modern humans.

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR6-10 – Interim report	1.0	31/08/2023	Page xi

Table 1 – List of abbreviations used in this report

Abbreviations	Description
AIA	Archaeological Impact Assessment
AMP	Archaeological Monitoring Program
ASAPA	Association of South African Professional Archaeologists
CRM	Cultural Resource Management
GPS	Global Positioning System
HIA	Heritage Impact Assessment
LSA	Late Stone Age
MSA	Middle Stone Age
NHRA	National Heritage Resources Act
PGS	PGS Heritage Pty Ltd
SAHRA	South African Heritage Resources Agency

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 12

1 INTRODUCTION

PGS Heritage (Pty) Ltd (PGS) was appointed by Royal Haskoning DHV (Pty) Ltd (RHDHV) to undertake archaeological mitigation work on the identified archaeological site TCHR4-10 (identified initially as archaeological complexes at Site 3, 4 and 5) to be impacted by the TFC Smelter - 100MW Photovoltaic (PV) Plant on the Farm Goudmyn 337 KT Portions: 0, 1, 6, 7, 10, Fetakgomo Tubatse Local Municipality, Limpopo Province.

The identified archaeological sites have low and high heritage significance respectively and are concentrated on site alternatives 3, 4 and 5. The sites were registered on SAHRIS as **TCHR4-10**, *but excavation numbering kept with the original site descriptions as per the Heritage Impact Assessment*. Areas designated as potential sites for mitigation had a grading varying between IIIC and IIIA at the highest (Fourie 2021). This report provides a summary of the mitigation work conducted on sites **TCHR6** to **TCHR10** between 1 October- 30 November 2022 under SAHRA Permit ID: 3647.

This report provides feedback on the work completed on **TCHR6-10**.

2 AIMS AND OBJECTIVES

The aim of the mitigation work is to:

- Determine the extent of the archaeological resources within the development pat; and
- Provide a representative sample of the archaeological resources that will be destroyed.

The outcome of the phase II mitigation work will ensure that an adequate record of past human activity is captured and preserved before major alterations to the immediate landscape.

2.1 Specialist Qualifications

This interim report was compiled by PGS.

The staff at PGS has a combined experience of nearly 90 years in the heritage consulting industry. PGS and its staff have extensive experience in managing mitigation processes. PGS will only undertake heritage assessment work where they have the relevant expertise and experience to undertake that work competently.

The field team consisted of:

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 13

Nicholas Fletcher, archaeologist, he holds an MA Archaeology

Tyron Hopf, archaeologist, holds a BA(Hon) in Archaeology and is currently writing up his MA dissertation. ASAPA number 549.

Wouter Fourie, the Project Coordinator and Principal archaeologist, is registered with the Association of Southern African Professional Archaeologists (ASAPA) as a Professional Archaeologist and is accredited as a Principal Investigator; he is further an Accredited Professional Heritage Practitioner with the Association of Professional Heritage Practitioners (APHP).

Henk Steyn, senior archaeologist, is registered with the Association of Southern African Professional Archaeologists (ASAPA) as a Professional Archaeologist and is accredited as a Principal Investigator.

3 LOCATION

The project area is located on portions of the farm Goudmyn 337KT and Olifantspoortje 319KT within the Fetakgomo Local Municipality of the Sekhukhune District Municipality, Limpopo Province. The sites are in and around the town of Steelpoort (**Figure 1**).

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 14

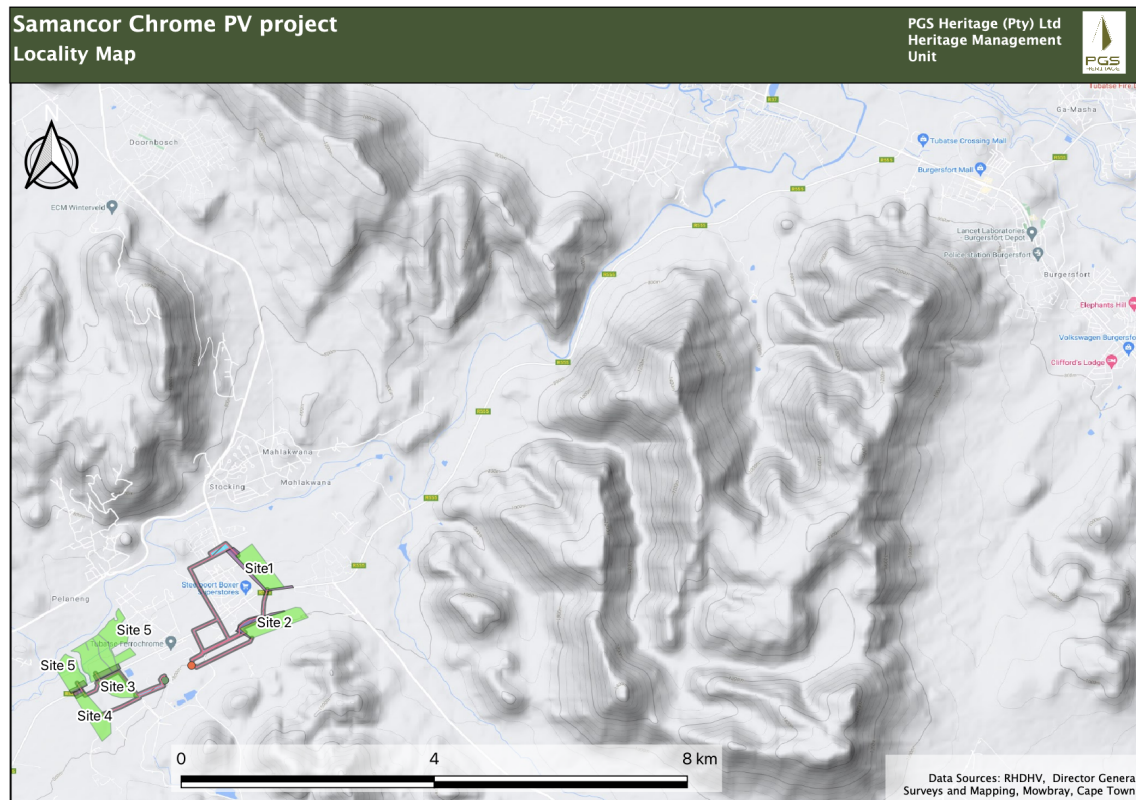


Figure 1 – Locality map showing the site alternatives for development

4 BACKGROUND

During the HIA (Fourie 2021) several heritage features and resources were identified and logged. A total of 57 points of interest were logged that resulted in the delineation and identification of 24 separate heritage sites. These consist of **five burial grounds** (Site 1-1, 1-7, 2-1, 2-2 and 2-3 this is indicated as a stone feature that could possibly be a grave) with a **High heritage significance and a heritage grading of IIIA**. The **nine historic recent structures**. These are 1-2, 1-3, 1-4, 1-5, 1-6, 2-4, 2-5, 5-5 and 5-7, vary in significance from **medium to low and a grading of IIIB**. The archaeological finds consisting of 9 archaeological sites (Site 3-1, 3-2, Site 4-1, 4-2, and Sites 5-1, 5-2, 5-3, 5-4 and 5-6) has in most cases a rating of **Medium significance and a grading varying between IIIC and IIIA at the highest**. Site 5-8 represents a possible memorial now in disuse it was rated as having a Low heritage significance but with a possible local significance.

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 15

5 DESCRIPTION OF AREA

Following the identification of several significant archaeological heritage resources at Sites 3, 4 and 5 during the HIA phase (Fourie 2021) it was deemed necessary to initiate a phase II mitigation of the archaeological sites.

The area of archaeological interest is situated directly west of the TFC smelter plant and is split into northern and southern portions by the R555 national road. A steep banked perennial stream running from the Tubatse Dam toward the Steelpoort river divides the area roughly into eastern and western portions (Error! Reference source not found. to **Figure 2**).

The general environment is characterised as a mixture of Sekhukhune Plains Bushveld and Sekhukhune Mountain Bushveld bioregions with Sekhukhune Montane Grasslands in the near vicinity (Mucina et al. 2014). The immediate area can be described as varying from veld with some thickets of trees to a dense riverine thicket in the southwest of the project area. The ground is generally rocky and sandy with a constant slight slope dipping north toward the Steelpoort river.

Structures identified during the field assessment were possible hut floors and grain bin platforms; this will be confirmed during the excavations.

The HIA recommended the documentation and excavation of the identified archaeological site before continuing with the development.

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 16

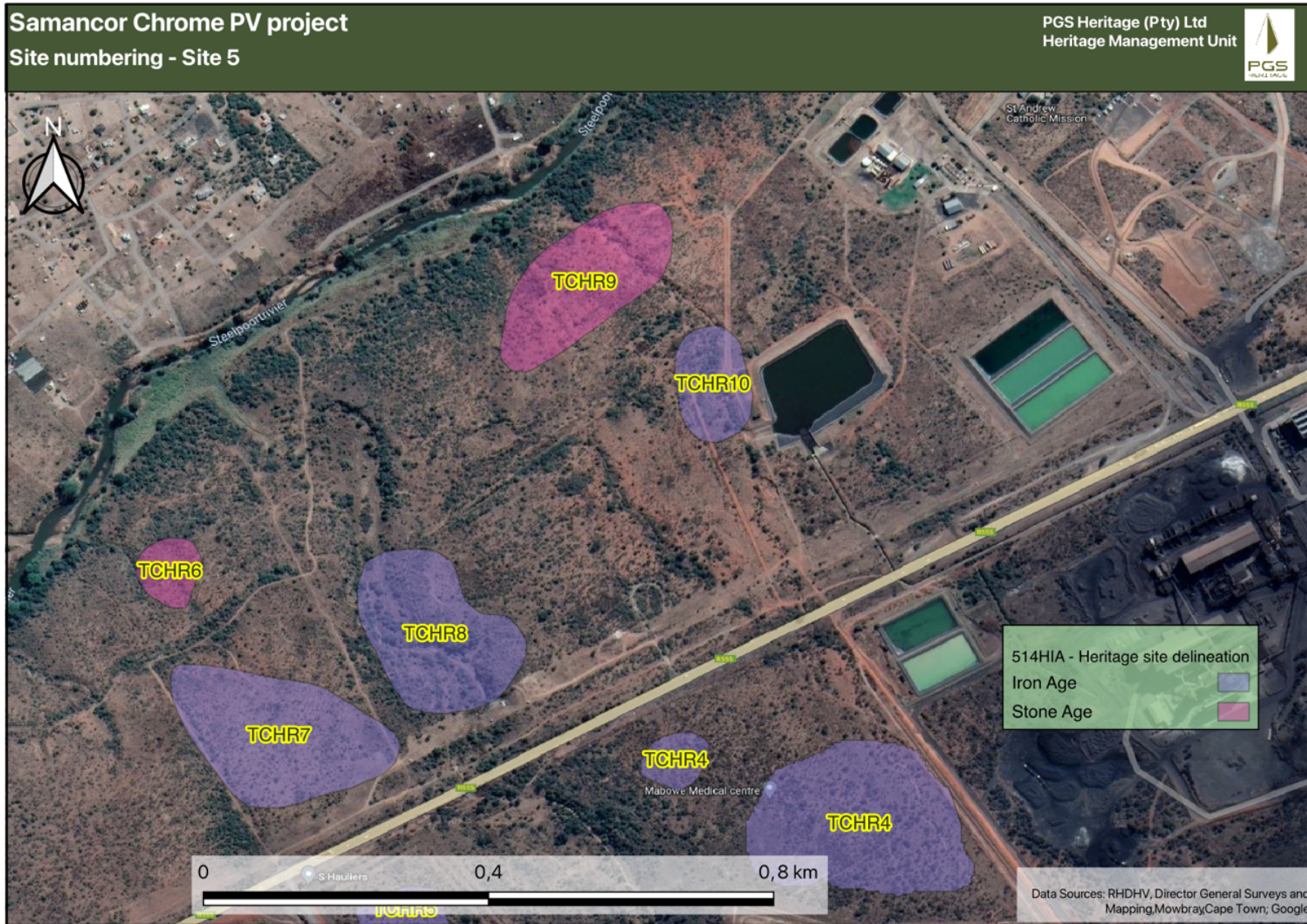


Figure 2 – Locality of the heritage resource in site 5 (TCHR6-10).

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 17

6 METHODOLOGY

The aim is to collect a representative sample of the archaeological material on-site for analysis to determine temporal localisation, cultural affiliation and possible social structure and layout of the settlement. The following was be done:

1. vegetation was cleared to expose the extent of the settlement or archaeological deposit;
2. a ground-penetrating radar (GPR) survey of the site was conducted in selected areas to determine the presence of subsurface structures such as hut structures and grain pits – Refer to GPR Methodology in section 4.1;
3. such structures were investigated through excavations conforming to archaeological techniques as described in the *ASAPA Constitution – Appendix C Minimum Standards for Practice*;

6.1 Specific mitigation techniques – Iron Age Sites:

1. The documentation and excavation techniques focused on recording, description and mapping the cultural remains present on the site as per SAHRA Permitting Policy;
2. Visible surface structures were documented through plan sketches using PGS Quality Management System (QMS) standard forms for context and stratigraphic recording;
3. A base point was utilised for each site to ensure detailed surveying of all structures and excavations for plan and layout sketches;
4. A grid sequence was utilised for referencing and localisation of all excavated squares;
5. A standard grid size of 1mx1m was used for excavations and where required smaller grid sizes were incorporated into the 1x1m standard size; and,
6. Excavations were started on 10cm spits on the vertical but reverted to excavation by cultural layer and structure identified (horizontal);

6.2 Specific mitigation techniques – Stone Age Sites:

1. The documentation and excavation techniques focussed on recording, describing and mapping the cultural remains present on the site as per SAHRA Permitting Policy;

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 18

2. The aim of the surface collection and test excavations were to collect a representative sample of the lithics contained in the identified pebble matrix;
 3. A base point was utilised for each site to ensure detailed surveying of all structures and excavations for plan and layout sketches;
 4. A grid sequence was utilised for referencing and localisation of all excavated squares;
 5. A standard grid size of 1mx1m will be used for excavations and where required, smaller grid sizes will be incorporated into the 1x1m standard size;
 6. Excavations will be started on 50mm spits to a maximum of 100mm on the vertical within the set-out excavation grids, and,
 7. Surface collections were done with a controlled grid of 2x2m that was linked with the 1mx1m excavation grids, where excavations are done on the site;
- All excavations and test pits were surveyed and geolocated with a differential GPS system;
 - All excavations were backfilled after completion of the fieldwork;
 - Where possible samples for C14 dating were collected and on completion of the excavations sent for C14 dating at a South African Facility (if available);
 - All artefacts and material collected were marked and labelled and packed for transportation to our laboratory at the University of Pretoria;
 - The material is currently being cleaned, analysed and finally accessioned for storage;
 - The material will then be submitted to the University of Pretoria's Archaeology Department for curation after completion of the field report (Refer to Curation Letter as loaded on SAHRIS); and,
 - PGS will submit a final excavation report on the SAHRIS case for the closing of the permit.

6.3 Excavation Methodology expanded on site

- The trenches were largely excavated following the single-context method whereby layers are determined naturally through changes in the deposit.
- Excavated trenches were recorded using both digital and paper-based methods. These include photographic recording, GPS, context description forms for each excavated layer, as well as plan drawings and profile drawings where necessary
- A combination of spades, hoes, mattocks, and trowels were used to excavate the deposits. Brushes, scoops, and buckets were used to remove the deposit from the trenches. The excavated material was screened and sorted through 3mm sieves.
- All artefacts were placed in bags along with the provenience information (site name, location, locus, context, and artefact type) recorded on a yellow tag.

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 19

- Features of the site as well as the excavation trenches were spatially recorded using a differential GPS. Trench co-ordinates are taken from the southwest corner.

7 EXCAVATION

Excavations and mitigation were conducted between 1 October and 25 November 2022 on sites **TCHR6 – TCHR10**. This report provides feedback on the work completed on **TCHR6 to TCHR10**.

Between 17 August and 25 November 2022 phase II mitigation work on **TCHR4-10** on PV Site 3, 4 and 5 of the planned PV plant to be erected at the Tubatse Ferrochrome Smelter were completed.

Each area contained various archaeological resources of varying heritage significance (see Fourie 2021). All Stone Age and Iron Age periods are represented to varying degrees across the three areas investigated. However, it must be noted that the compound effect of ever-intensifying activity on the land over time has taken a severe toll on the general contextual security of many of the finds.

Areas of focus selected for excavation and mapping are denoted by a decimal following the site number. Each area was extensively cleared, sampled, and recorded. Formal excavation units were generally either 2m x 2m or 1m x 1m squares. Test Pits were employed variously using both systematic and random sampling methods.

8 TFHM SITE 5 (TCHR6-10)

8.1 TCHR6

The site at **TCHR 6** was re-evaluated and in lieu of the assessment of the site and the extent of material collected at **TCHR9** it was decided not to collect any lithics at this open-air scatter.

8.2 TCHR7 – TFHM5.9 - Documentation of structures

TCHR7 extends over a steep and rocky incline that rises from a stream on the northernmost part of the site, stretching toward the upper reaches of the spur. The features and terracing are indistinct, and long, linear agricultural lines define the western slope at the top of the spur (**Figure 3**).

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 20

Despite the scarcity of cultural artefacts or deposits in the area, the majority of findings are limited to upper and lower grinders that are scattered throughout. Preliminary analysis suggests that the area is a complex palimpsest of temporal cultural periods ranging from the Late Iron Age to the historical era. The site is actively utilised, but due to extensive degradation, the archaeology is severely compromised.

The lack of cultural material and clear structures halted documentation on this site. The site conforms to the same layout patterning as on-site **TCHR5** and is seen as sufficiently documented through the work completed on **TCHR5**.

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 21

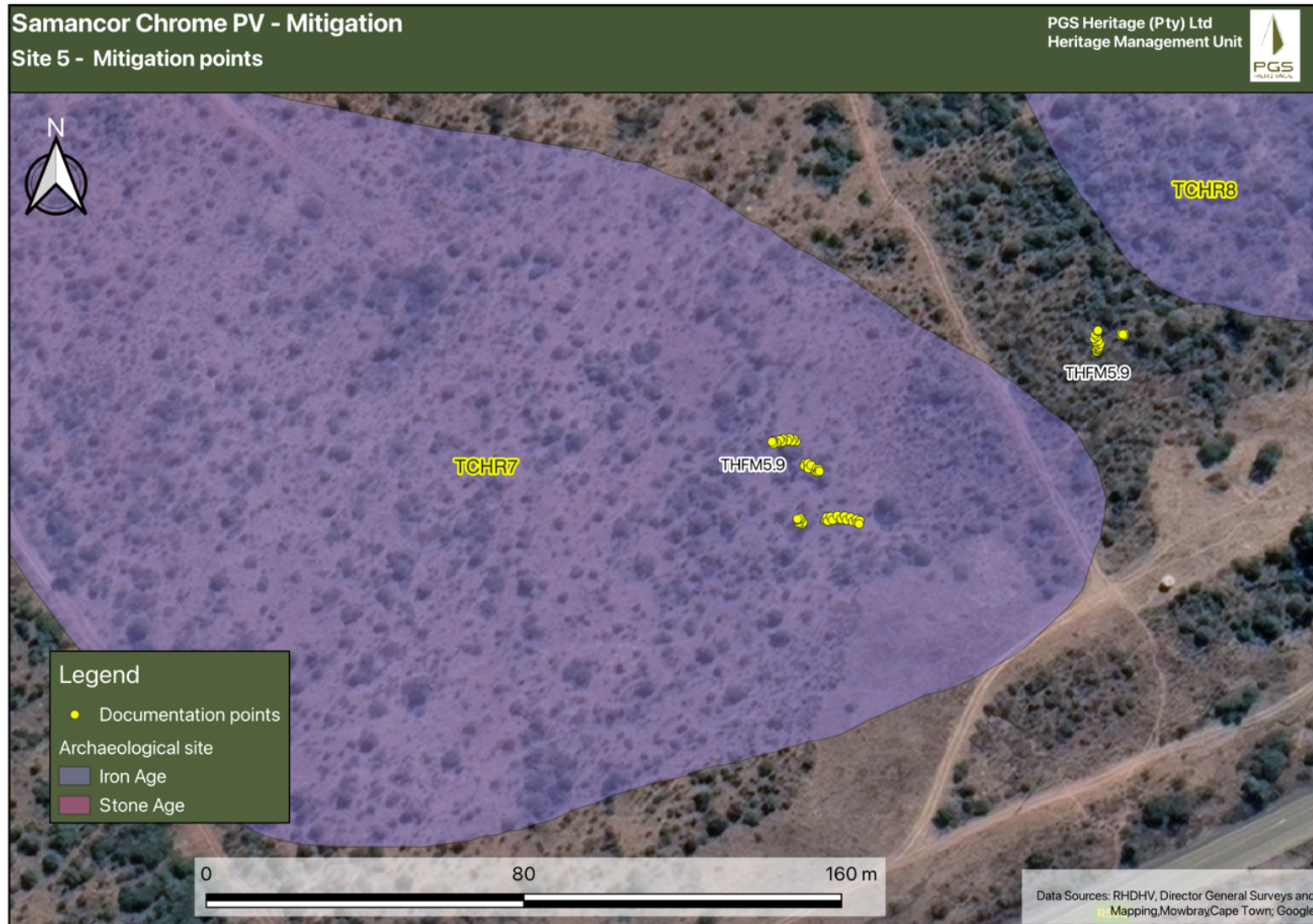


Figure 3 – Locality of THFM5.9 in relation to the larger TCHR7.

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 22

8.3 TCHR8 – Excavation TFHM 5.4

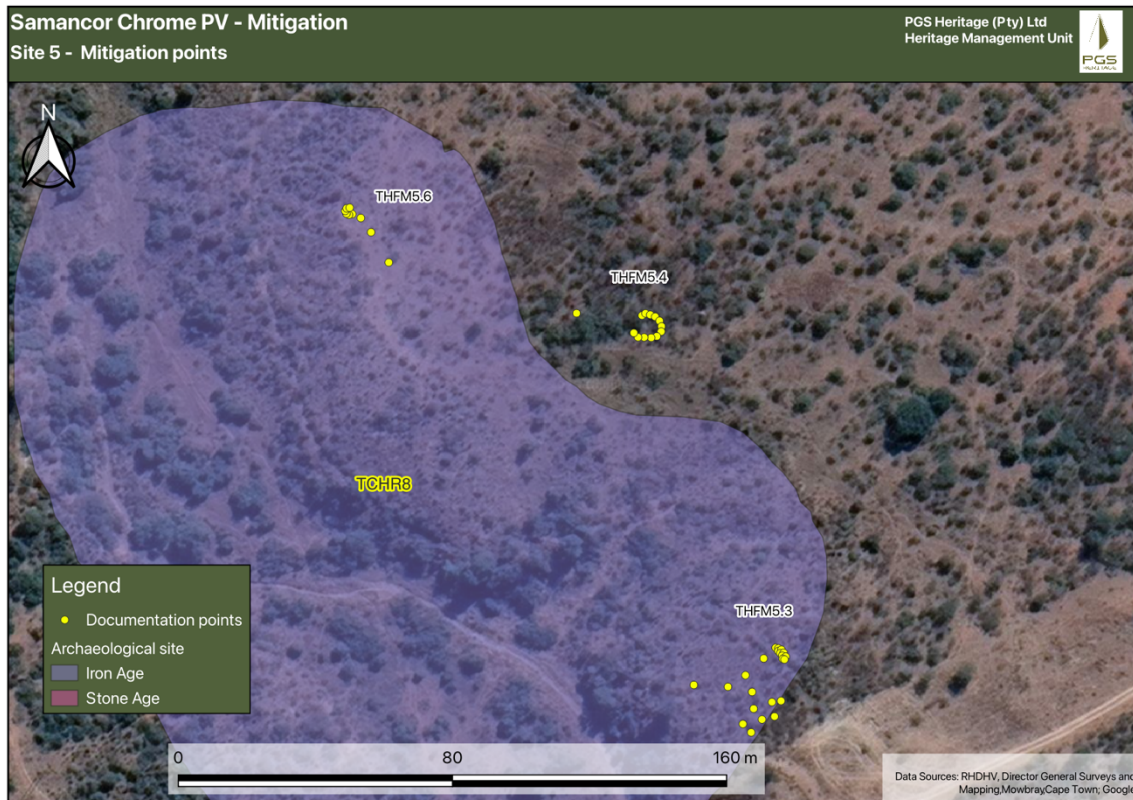


Figure 4 - Locality of TFHM5.4

This site measures approximately 10 x 10m m and comprises of a circular stone lined structure. The structure was cleared, and the central area was probed with auger test holes. No reposit were identified within the circular area (**Figure 6**).

A test trench was done in an area some 15 meters to the west of the structure, where a concentration of ceramics was identified (refer to **section 9** of this document).

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 23



Figure 5 – TFHM 5.4 – View of the cleared structure

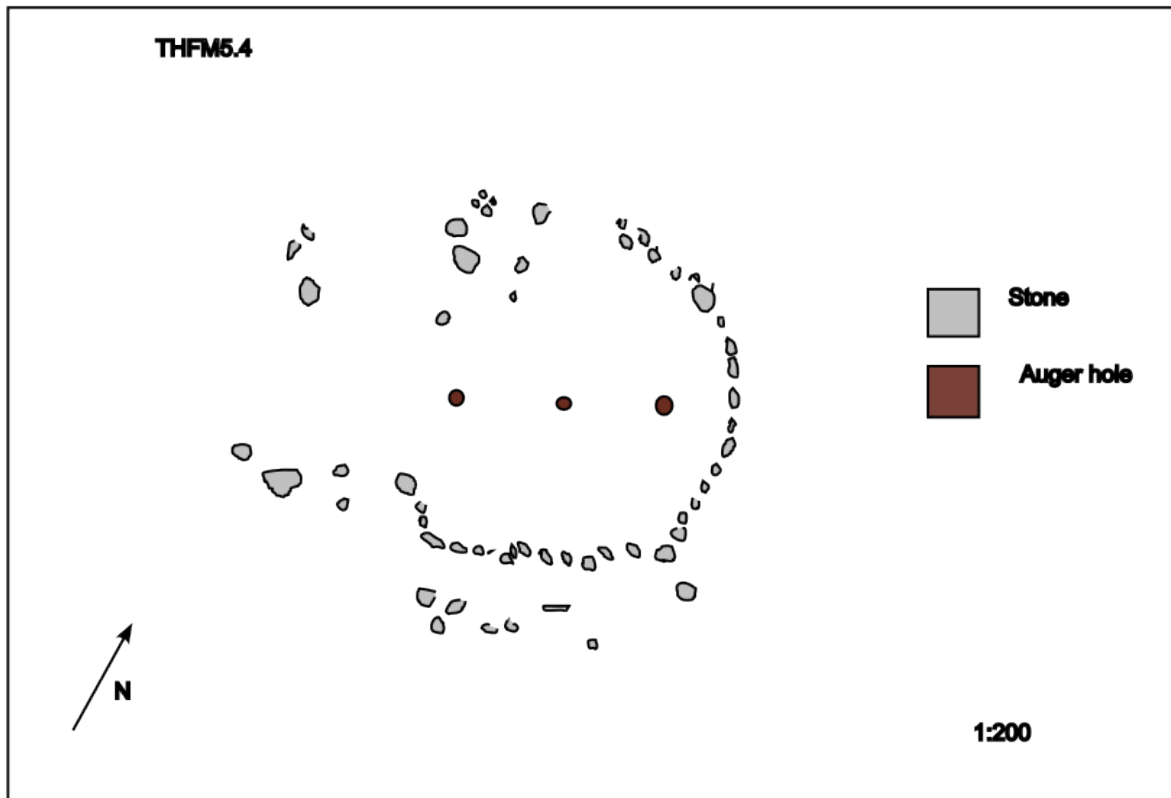


Figure 6 – TFHM 5.4 Plan drawing of the structure

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 24

8.4 TCHR8 – Excavation TFHM 5.6

Site TCHR8 is situated on the eastern banks of a tributary of the Steelpoort River (**Figure 7**). Dense vegetation cover hampered the identification of archaeological structures. The documentation of the structures and features at TFHM 5.6 and THFM 5.4 is discussed below.

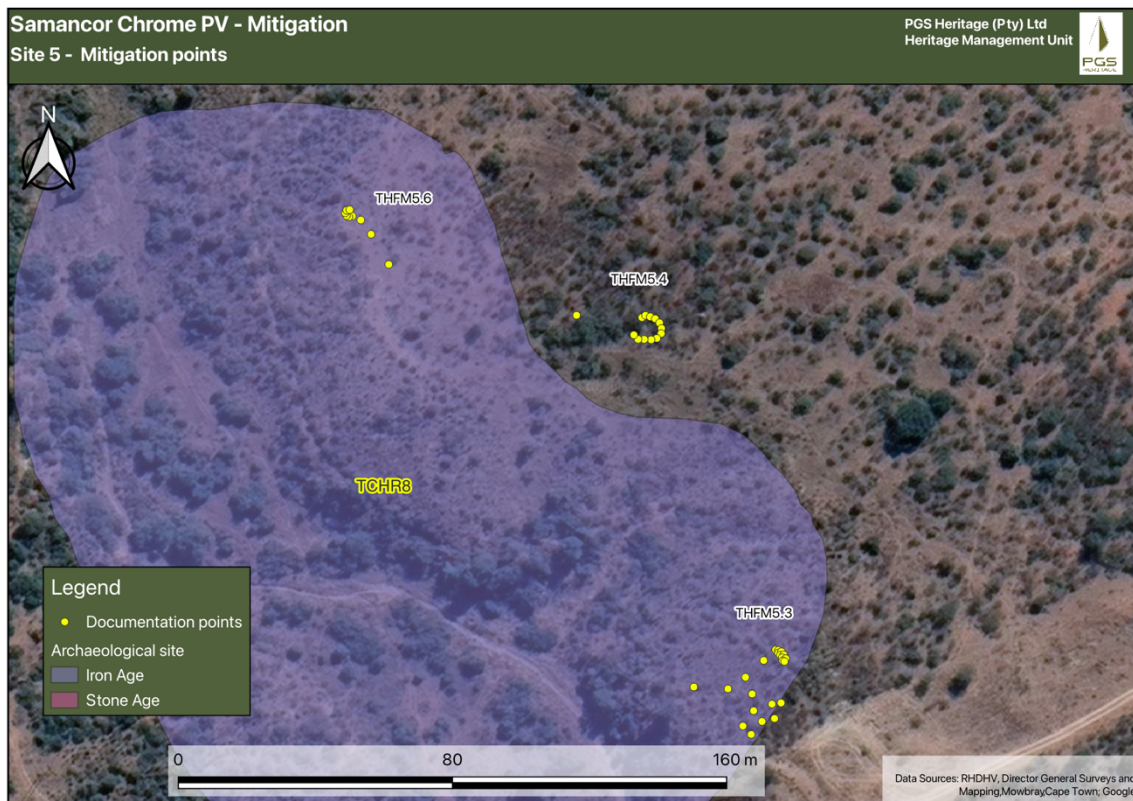


Figure 7 - Locality of TFHM5.6

The area within TCHR8 is numbered TFHM5.6 and consists of a round stone-packed surface. The structure was originally a platform (**Figure 8**). To the north of the structure, a smaller U-shaped stone-lined structure was present that could be the remains of a cooking screen (**Figure 8**).

Auger holes and shovel test pits revealed no deposits in and around the two structures.

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 25



Figure 8 – TFHM 5.6 – Cleared stone feature.



Figure 9 – TFHM 5.6 – Stone-lined feature

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 26

8.5 TCHR9 – Excavation TFHM 5.12

TCHR9 is characterised by a large rocky eroded landscape in the draining lines flowing west towards the banks of the Steelpoort River some 200 meters to the west (

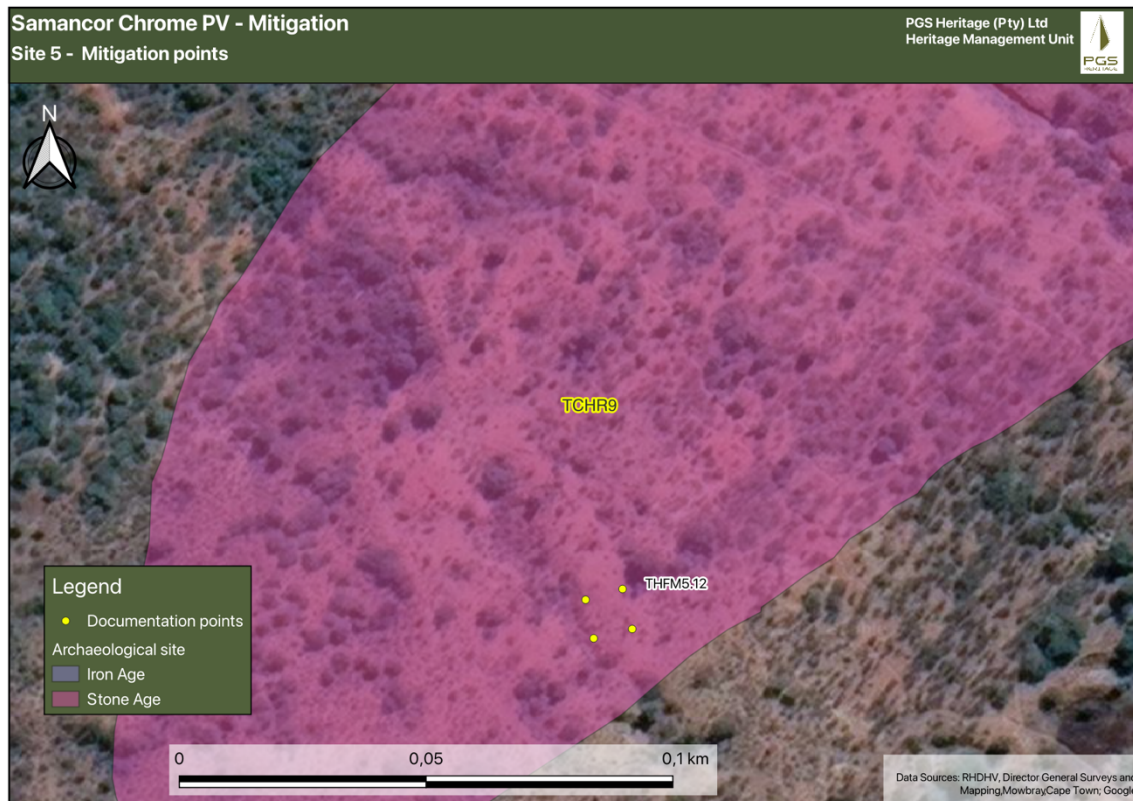


Figure 10 – Locality of the mitigation point within TCHR9

A grid of 10 x 10 m was set out over an elevated spur between two drainage lines (**Figure 11** and **Figure 12**). As control over the concentration of Stone Age lithic material, the grid squares were set at 2 x 2m. The highest concentration of the surface scatter of lithics was centred around the apex of the spur, while concentrations diminished further down the slope (**Figure 14**).

Two test pits (1x1m) were dug in square D4, and B5. The D4 terminated at 62cm on solid rock, while B5 terminated at 32cm.

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 27



Figure 11 – View of excavation site TFHM5.12



Figure 12 – View of excavation site TFHM5.12 at elevation

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 28



Figure 13 – View of test pit at excavation site TFHM5.12

8.5.1 Material retrieved

Table 3 provides a breakdown of the material retrieved.

Table 2 - Lithics retrieved for analysis

Block	Count
A1	14
A2	104
A3	83
A4	89
A5	24
B1	9
B2	79
B3	73
B4	26
B5	17
C1	38
C2	61

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 29

Block	Count
C3	83
C4	50
C5	17
D1	42
D2	51
D3	53
D4	41
D5	10
E1	65
E2	49
E3	44
E4	31
E5	17
Sum	1170

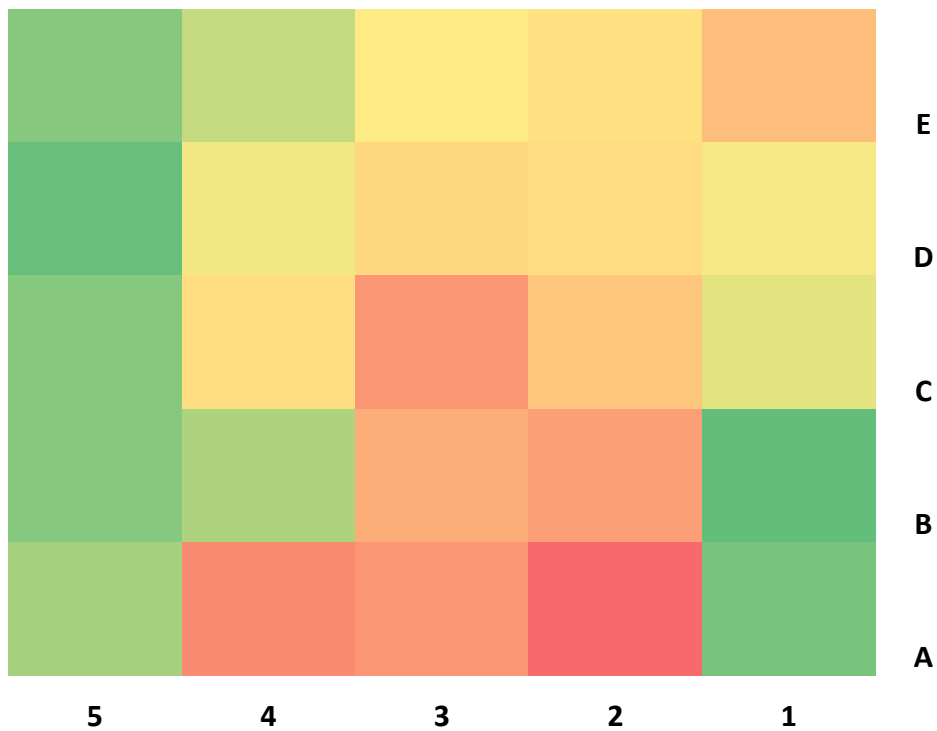


Figure 14 - heat map of lithic distribution at THFM5.12

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 30



Figure 15 - Lithics from square B2 and B3



Figure 16 - Lithics from square C3 and A2

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 31



Figure 17 - Lithics from square C2 and E1

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 32

8.6 TCHR10 – Excavation TFHM 5.1

Site TFHM 5.1 is situated on the side of a dirt road where the road cutting and erosion exposed a daga floor and some ceramics (**Figure 18**).



Figure 18 - Locality of mitigation point within TCHR10

8.6.1 Trench 1

A test trench of 2m x 2m was set out to control the excavation.

- Layer 1; C500
A 20 cm red sandy deposit of overburden was removed to expose the daga deposit fully.
- Layer 2; C501
The context consisted of chunks of daga with some pole impressions visible. It is evident that the daga is part of a collapsed hut wall that on collapse was deposited on the clay floor in context C502.
- Layer 3; C502
The context consists of a polished clay floor of a hut. The extent of the floor was exposed.

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 33

Artefacts collected from the layer was ceramics, charcoal and a possible piece of wood possibly part of the wattle and daub construction of the hut wall.

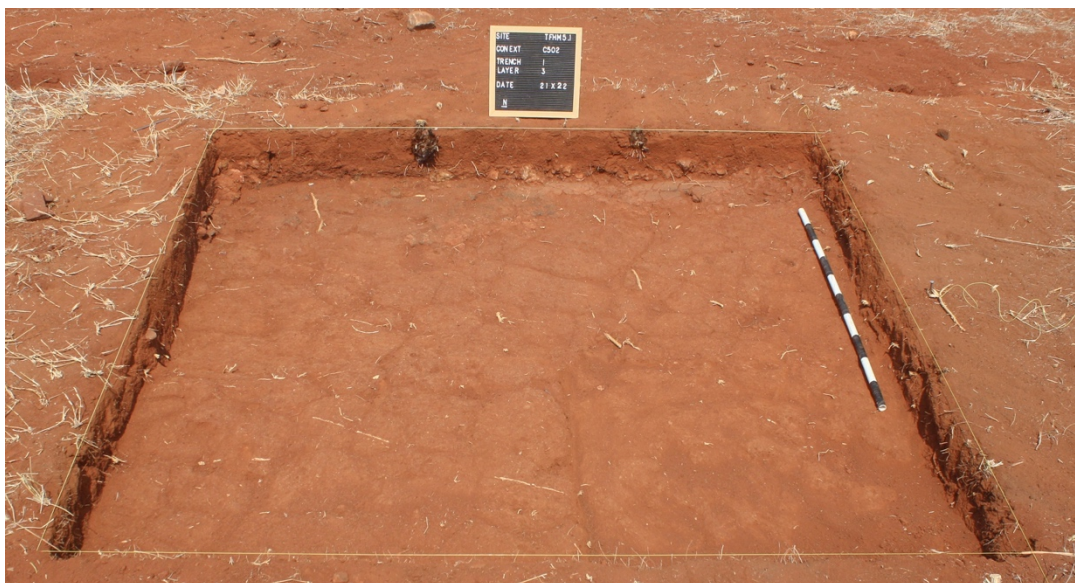


Figure 19 – TFHM 5.1 layer 3 before exposing the hut floor to the west



Figure 20 – TFHM 5.1 – Ceramic concentration on hut floor

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 34



Figure 21 – TFHM 5.1 layer 3 – visible hut floor

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 35

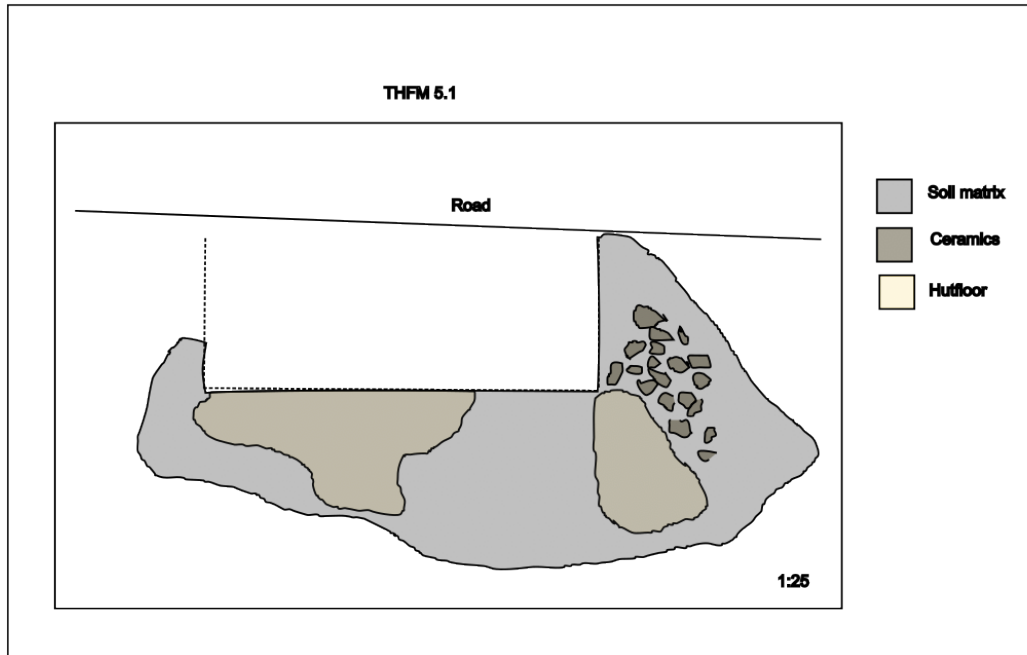


Figure 22 - Plan drawing of THFM5.1 hut

9 MATERIAL RETRIEVED

Table 3 provides a breakdown of material retrieved from the Iron Age excavations.

Table 3 -Artefacts retrieved for analysis.

Type	Total	Weight if relevant
Ceramics – THFRM5.1	190	
Ceramics - Diagnostic	60	
Wood		115g
Charcoal		350mg

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 36



Figure 23 - Ceramics retrieved form surface collections and test pits close to THFM5.1 and 5.4

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 37



Figure 24 – Diagnostic of decorated ceramics retrieved during a site investigation



Figure 25 - Decorated ceramic bowl retrieved from test trench.

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 38

10 CONCLUSION

PGS obtained an excavation permit from the SAHRA to collect a representative sample of the archaeological material associated with sites **TCHR4-10** for analysis to provide a record of temporal localisation, material cultural affiliation, and layout of the settlements located within each area.

A representative sample was recovered for the cultural deposits on sites **TCHR6** to **TCHR10**. The recovered archaeological data consists of material culture such as decorated pottery, faunal material, stone tools and implements, and recordings of architectural features and site plans. The recovered material is to be processed at the PGS laboratory at the University of Pretoria, after which it will be submitted to the University of Pretoria for curation.

Due to the extent of post-processing of material, this interim report is submitted as backing for the destruction application to be submitted by Tubatse Ferrochrome to ensure that the proposed construction activities can start on **PV Site 5** where the archaeological complexes of **TCHR6** to **TCHR10** are situated. It is our opinion that the destruction process can continue with the backing of a SAHRA permit and the implementation of the recommendation below:

10.1 Destruction Methodology

It is recommended that during the destruction of these sites (TCHR4 and TCHR5), archaeologists monitor the earthworks. The destruction process will follow the process as set out below:

- An archaeologist will be appointed to monitor the physical destruction work on site. It is envisaged that this senior archaeologist will manage a team of archaeologists and field technicians that will be during the destruction process;
- Site clearing will start with the removal of vegetation with suitable heavy machinery that could include bulldozers and TLB machines;
- The clearing will be done in a controlled and systematic strip manner;
- After clearance of the vegetation, it is recommended that a grader is used to strip the topsoil in 20-30cm layers (this is dependent on the soil and subsurface conditions).
- If any archaeological material is found, the work will be stopped in the specific area of finds until the material can be recovered under the current s 35 permit conditions.
- All recovery work will be done according to SAHRA and ASAPA standards and will follow the archaeological process as already contained in Permit CaseID: 18977, PermitID:3647.
- As reported in this document, the recovered material will be included in the bulk samples collected from the excavation and sampling process.
- A final destruction report will be submitted on completion of the works to SAHRA.

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 39

Appendix A SAHRA Permit

Archaeological Mitigation application for sites TCHR4-10 impacted by the TFC Smelter -100MW Photovoltaic (PV) Plant

Our Ref:



an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

Enquiries: Elijah Dumisani Katsetse
Tel: 0214624502
Email: ekatsetse@sahra.org.za
CaseID: 18977

Date: Thursday July 28, 2022
Page No: 1

PermitID: 3647

PERMIT: Pre-disturbance survey, Excavation, Collection, Use equipment on site **In terms of Section 35(4) of the National Heritage Resources Act (Act 25 of 1999)**

Permit Holder: Mr Wouter Fourie
PGS Heritage (Pty) Ltd
PO Box 32542
Totiusdal
0134

Site: Tubatse Ferrochrome PV - Site 4 (TCHR4, TCHR5, TCHR6, TCHR7, TCHR8, TCHR9, TCHR10)

For mitigation including recording and excavation of site complexes TCHR4-10 to be impacted by the TFC Smelter - 100MW Photovoltaic (PV) Plant on the Farm Goudmyn 337 KT Portions: 0, 1, 6, 7, 10, Fetakgomo Tubatse Local Municipality, Limpopo Province.

1. This permit is issued to Mr Wouter Fourie and Henk Steyn (PGS Heritage) in collaboration with Dr. Alaxander Anonites (University of Pretoria).
2. If the permit holder(s) is(are) not to be present on the site at all times then SAHRA must be provided with the names and qualifications of the authorised representatives.
3. Mitigation work will include the use of GPRS, Excavations, mapping and recording. Excavation methods will include extensive sampling using grids of one meter squares over the sites and sieving if necessary. Any sampled artefacts must be recorded prior to sampling and sites must be mapped.
4. Adequate recording methods as specified in the Regulations and Guidelines pertaining to the National Heritage Resources Act must be employed. Note that the position of all excavations and objects collected must be marked on a plan of the site.
5. A standard site record form must be lodged with the Department of Anthropology & Archaeology at University of Pretoria.
6. All material collected and excavated, as well as field notes and records, will be curated by the Department of Anthropology & Archaeology at University of Pretoria, who will be responsible for the permanent curation and safekeeping of all artefactual material in a condition that allows ongoing research.
7. A final report on the results of the mitigation and analyses must be emailed

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 40



an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

to apmpermitreports@sahra.org.za on or before 31 July 2023 using the template in the following link: <https://sahris.sahra.org.za/content/apmpermitreports>. SAHRA reserves the right to withhold further permits if progress is not deemed satisfactory. Permit reports can be made available to researchers on request within three years of the lapsing of this permit.

8. Reprints of all published papers or copies of theses and/or reports resulting from this work must be lodged with SAHRA.

9. It is the responsibility of the permit holder to obtain permission from the landowner for each visit, and the excavator is responsible for ensuring that he or she has an understanding with the landowner concerning: the number of visitors and workers; conditions for camping on the property; speed limits on access roads; possible prohibitions on off-road driving; size, type and number of vehicles permitted; possible prohibitions on trespassing beyond the site; disturbing fauna, flora or substrate; erection and demolition of structures on the site; appropriate hours of visiting and working on the site; use of firewood, electricity and water; lighting fires and the prevention of uncontrolled fires and any fencing necessary to protect livestock. Conditions of access imposed by the landowner must be observed.

10. The permitted excavator shall be responsible for the activities and impacts of all colleagues, students and employees under his or her supervision.

11. Excavators must take measures to ensure the safety of any person who may enter the excavation site as part of their excavation team or as their visitor.

12. It is the responsibility of the permit holder to protect sites during and after excavation and to ensure that, where appropriate, excavations are filled in or stabilised with adequate materials (e.g. Loffelstein blocks or army bags in geotextile) to the satisfaction of SAHRA and the landowner.

13. SAHRA shall not be liable for any losses, damages or injuries to persons or properties as a result of any activities in connection with this permit.

14. SAHRA reserves the right to cancel this permit by notice to the permit holder.

15. This permit is subject to a general appeal and may be suspended should an appeal against the decisions be received by SAHRA within 14 days from the date of the permit. SAHRA may not be held responsible for any costs or losses incurred in the event of the suspension or retraction of this permit.

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 41

Archaeological Mitigation application for sites TCHR4-10 impacted by the TFC Smelter -100MW Photovoltaic (PV) Plant

Our Ref:



an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

Enquiries: Elijah Dumisani Katsetse
Tel: 0214624502
Email: ekatsetse@sahra.org.za
CaseID: 18977

Date: Thursday July 28, 2022
Page No: 3

PermitID: 3647

16. Request to renew permits must be done at least two months prior to the expiry of the existing permit.



Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 42

Archaeological Mitigation application for sites TCHR4-10 impacted by the TFC Smelter -100MW Photovoltaic (PV) Plant

Our Ref:



an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

Enquiries: Elijah Dumisani Katsetse
Tel: 0214624502
Email: ekatsetse@sahra.org.za
CaseID: 18977

Date: Thursday July 28, 2022
Page No: 4

PermitID: 3647

This permit is valid from
21/07/2022 to 31/07/2023

Elijah Dumisani Katsetse
Heritage Officer
South African Heritage Resources Agency

Phillip Hine
Manager: Archaeology, Palaeontology and Meteorites Unit
South African Heritage Resources Agency

Additional Info:

Please note that this permit may be suspended should an appeal against the decisions be received by SAHRA within 14 days from the date of the permit. SAHRA may not be held responsible for any costs or losses incurred in the event of the suspension or retraction of this permit.

ADMIN: Direct URL to case: <https://sahris.sahra.org.za/node/600320>

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 43

Appendix B
Project archaeologist CV

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 44

PROFESSIONAL CURRICULUM FOR WOUTER FOURIE

Name: Wouter Fourie
Profession: Archaeologist
Date of birth: 1974-04-30
Parent Firm: PGS Heritage (Pty) Ltd
Position at Firm: Director
Years with firm: 17
Years of experience: 23
Nationality: South African
HDI Status: White

EDUCATION:

Name of University or Institution : University of Pretoria
Degree obtained : BA
Major subjects : Archaeology, Geography and Anthropology
Year : 1996

Name of University or Institution : University of Pretoria
Degree obtained : BA [Hons] (Cum laude)
Major subjects : Archaeology and Geography
Year : 1997

Name of University or Institution : National Nuclear Regulator
Certificate obtained : Radiation Protection Officer Certificate
Year : 1999

Name of University or Institution : University of Cape Town
Certificate obtained : Project Management Foundations short course
Year : 2015

Name of University or Institution : University of Cape Town
Certificate obtained : MPhil – Conservation of Built Environment
Year : 2016-Current

Professional Qualifications:

Professional Heritage Practitioner – Association of Professional Heritage Practitioners (APHP)
 Professional Archaeologist - Association of Southern African Professional Archaeologists - Professional Member – No 043

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 45

CRM Accreditation

Principal Investigator - Grave Relocations

Field Director – Iron Age

Field Supervisor – Colonial Period and Stone Age

Accredited with Amafa KZN

Languages:

Afrikaans

English – Speaking (Good) Reading (Good), Writing (Good)

KEY QUALIFICATIONS

- More than 20 consecutive years of work in the heritage consulting field;
- In depth knowledge of heritage management principles;
- 18 years working experience in the protection of cultural heritage sites and archaeological excavations;
- Proven experience in report writing and report deliverables;
- 18 years experience in management of the cultural heritage consultancy teams;
- 10 years of experience in institutional, multinational company interaction and project implementation;
- Proven experience in project scheduling and programming;
- Experience in development and implementation of quality, environmental and environmental health management systems for projects and companies;
- Experience in the development of policies and guidelines related to heritage management.
- Experience in planning and implementation of workshops and conferences.

CONFERENCE PAPERS AND PUBLICATIONS

- 2016 - Implementing Responsible Grave Relocation – The case for Comprehensive Grave Relocation Action Plan for Integrated Project Management. *21st annual IAIA conference, Port Elizabeth, Eastern Cape.*
- 2012 - Heritage management: compliance or just a nuisance during the Environmental Management Programme implementation. *17th annual IAIA conference, Somerset West, Western Cape.*
- 2011 – POSTER – W. Fourie and J. van der Walt. Sterkspruit: Micro-layout of Late Iron Age stone walling, Lydenburg, Mpumalanga. . *Association of Southern African Professional Archaeologists – Conference, Swazi Land*
- 2011 – POSTER – P.D. Birkholtz, W. Fourie and W.C. Nienaber. Onverwacht: Archaeological and Historical Analysis of Swazi settlement layout. *Association of Southern African Professional Archaeologists – Conference, Swazi Land*
- 2011 – POSTER – H.S. Steyn, W. Fourie and M. Hutten. Kappa Omega Transmission Line: Findings from an Archaeological Walk Down. *Association of Southern African Professional Archaeologists – Conference, Swazi Land*
- 2011 - Archaeology, Physical Anthropology and DNA analysis – The case of Queen Thomo Jezangani Ndwandwe. *Association of Southern African Professional Archaeologists – Conference, Swaziland*
- 2008 – Probabilistic Modeling of archaeological sites, Pilanesberg National

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 46

Park. Paper delivered at the *Association of Southern African Professional Archaeologists – Conference, Cape Town*

- 2008 - Archaeological Impact Assessments within South African legislation. *South African Archaeological Bulletin 63 (187): 77–85, 2008*
- 2006 - Paper delivered at ASAPA conference, Pretoria. Tavistock: Good grave relocation practice.
- 2005 - Paper delivered at the Three Universities Seminar, University of Pretoria: The repatriation of King Michael Tjiseseta.
- 2005 - 'The Return of a King' - The repatriation of King Michael Tjiseseta, Paper delivered at the conference of the Pan-African Archaeological Association for Prehistory and Related Studies in Gaborone, Botswana, in July 2005.
- 2004 - Research poster, Probabilistic Modeling of Archaeological Sites, Pilanesberg National Park. *South African Association of Archaeologist Conference, Kimberley*

INTERNATIONAL PROJECTS

- 2017 – current: **Position:** Heritage Specialist and Project Director – Lesotho Highland Development Authority – Polihali Dam Project - Heritage Management Plan development and Implementation. **Mokhotlong, Kingdom of Lesotho – Project Value:** €1,800,000.00
- 2016 – current – **Position:** Heritage Specialist and Project Director - Total – Grave Relocation Action Plan and implementation for the Mozambique Liquid Natural Gas Project, **Palma, Northern Mozambique – Project Value:** €1,800,000.00
- 2018 – **Position:** Heritage Specialist and Project Manager – Sovereign Metals – Malingunde Graphite Project, **Malawi – Heritage Impact Assessment – Project Value:** €25 000.00
- 2017 - **Position:** Heritage Specialist and Project Manager – Aurcon Singapore for the Government for Mauritius – Heritage Assessment for the proposed Rapid Rail Link, **Port Louis, Mauritius – Project Value:** €6,200.00
- 2013 – 2016 - **Position:** Heritage Specialist and Project Manager - SLR Consulting - Heritage Impact Assessment, Manica Gold Project, **Manica Province, Mozambique - Project Value:** €5,000.00
- 2012 - **Position:** Heritage Specialist and Project Manager - SLR Consulting - Heritage Impact Assessment, Namoya SALR – Gold Mine, Maniema Province in the eastern **Democratic Republic of Congo (DRC) - Project Value:** €5,500.00
- 2012 - **Position:** Heritage Specialist and Project Manager - Consolidated Contractors Group S.A.L. -Mitigation and Grave Relocation at Site 37-A3-16 on the Mahalpye to Kudumatse Road Construction Project. **Central District, Botswana - Project Value:** €7,500.00
- 2010 - **Position:** Heritage Specialist and Project Manager - Digby Wells & Associates - Grave Relocation Procedures and Consultation – RAP Process, Kibali Gold Mine, Watsa, Oriental Province, **Democratic Republic of the Congo - Project Value:** €5,500.00

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 47

2010 - **Position:** Heritage Specialist and Project Manager - Digby Wells & Associates - Archaeological Study, Kibali Gold Mine, Watsa, Oriental Province, Democratic Republic of the Congo - **Project Value:** €5,500.00

2008 - **Position:** Heritage Specialist and Project Manager - Digby Wells & Associates - Mmamabula Mining Project CIC, **Botswana** - **Project Value:** €5,000.00

MITIGATION WORK

Stone Age Mitigation Projects

1. 2020 - current – Mokala Road Diversion, Hotazel, Northern Cape Province. Stone Age Phase 2 Mitigation Archaeological Excavation. PI and permit holder. Dr MM van der Ryst as a specialist analyst
2. 2020 – current - Transnet Tank Farm, Coega IDZ, Eastern Cape Province. Stone Age Phase 2 Mitigation Archaeological Excavation. PI and permit holder with Prof John Parkington
3. 2018 – Phase 2 Stone Age mitigation for the development of the Kathu Cemetery just west of Kathu town, Northern Cape. Field Director and permit holder. PI – Drrs Forssman and Caruana
4. 2017 – Current - Lesotho Highland Development Authority – Polihali Dam Project - Heritage Management Plan development and Implementation. Mokhotlong, Kingdom of Lesotho Project Manager
5. 2016 – Mitigation of a Later Stone Age open-air site. ACWA Red Stone Solar Concentrator, Humansrus. Northern Cape. Field director and permit holder with PI – Dr Tim Forssman
6. 2016 – Documentation and mitigation of an Early Stone Age Site GK062 on the GammaKappa 76kV transmission line, Tulbagh, Western Cape. Co-PI with Mr Cedric Poggenpoel
7. 2014-2017 - Raising of the Clanwilliam Dam – Heritage Mitigation – Middle and Later Stone Age Sites, Clanwilliam, Western Cape. Project Manager and PI with Prof John Parkington
8. 2013 - Kappa Gamma, Phase 2 Middle Stone Age Site, Touws Rivier, Western Cape. Field Director, Dr M.M. van der Ryst, PI
9. 2011 – Eskom 400 kV – Dinaledi Marang – Phase 2 Middle Stone Age Site, Mitigation Field Director and permit holder, Dr M.M. van der Ryst, PI
10. 2011 – Eskom 400 kV – Dinaledi Marang – Phase 2 Early Stone Age Site, Mitigation - Field Director and permit holder under Dr K. Kumann, PI
11. 2011 - Eskom 400kV – Dinaledi-Spitskop – Phase 2 Middel Stone Age Site, Mitigation - Field Director and permit holder, under Dr M.M van der Ryst, PI
12. 1994-7 – Krygkor field school. Weekly excavations of Later Stone Age shelter. Pretoria. Field Technician

Iron Age Mitigation projects

1. 2021 – current - Nkomati Anthracite Colliery, Iron Age Phase 2 mitigation excavations. Acting as permit holder and PI

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 48

2. 2012 - Misgund N1 Interchange upgrade, Iron Age Phase 2 excavation, Johannesburg, Gauteng Province. Field Director and permit holder, under Prof. JCA Boeyens, PI
3. 2011 – Eskom 400 kV – Dinaledi Marang – Phase 2 Late Iron Age, Mitigation - Field Director and permit holder, under Prof. JCA Boeyens, PI
4. 2009 - Nkomati Mine, Onverwacht Phase 2 excavations, Badplaas, Mpumalanga. Field Director and permit holder, under Prof. TN Huffman, PI
5. 2008 - TWP, Wesizwe Platinum Phase 2 excavations, Pilanesberg, North West Province. Field Director and permit holder, under Prof. TN Huffman, PI
6. 2008 - The Heads Trust, Heritage Assessment, phase 2 documentation, and monitoring for Lydenburg Ext 38 housing development, Lydenburg, Mpumalanga. Field Director and permit holder, under Prof. JCA Boeyens, PI
7. 2006 – Gardener Ross, Phase 2 archaeological excavations and documentation of an Iron Age settlement close to Minandi, Gauteng. Field Director, under Prof. JCA Boeyens, PI
8. 1997 – Documentation and interpretation of the Late Iron Age settlement complex on the farm Jachtfontein, Western Gauteng under Dr JCC Pistorius
9. 1994-6 – Fieldwork experience on field schools as hosted by the University of Pretoria at Mapungubwe and K2 in the Limpopo Province – Field Technician
10. 1994-6 – Documentation and excavation of Late Iron Age settlements, Rustenburg area. Field technician under Dr JCC Pistorius

Colonial Period Mitigation Projects

1. 2021 – Coega Zone 10, Coega IDZ, Eastern Cape Province. Colonial Period Phase 2 Mitigation Archaeological Excavation. PI and permit holder
2. 2011 – Eskom 400kV – Dinaledi Spitskop – Phase 2 Historical Site, Mitigation - Field Director and permit holder, J.P Behrens, PI
3. 2016 – Phase 2 excavation and documentation of the Rondegat Outspan, Clanwilliam dam under Workplan from HWC. The permit holder and Field Director with Mr C Poggenpoel and Prof John Parkington

POSITIONS HELD

- **2018 – current:** Director - PGS Heritage Mozambique Lda
- **2017 – current:** Director - PGS Heritage (Pty) Ltd Lesotho
- **2003 – current:** Director - PGS Heritage (Pty) Ltd
- **2006 – 2008:** Project Manager – Matakoma-ARM, Heritage Contracts Unit, University of the

Document	Project	Revision	Date	Page Number
626HIA- 001	TCHR4-10 – Interim report	1.0	31/08/2023	Page 49

Witwatersrand

- **2005-2007:** Director – Matakoma Heritage Consultants (Pty) Ltd
- **2000-2004:** CEO– Matakoma Consultants
- **1998-2000:** Environmental Coordinator – Randfontein Estates Limited. Randfontein, Gauteng
- **1997-1998:** Environmental Officer – Department of Minerals and Energy. Johannesburg, Gauteng