

**PRE-CONSTRUCTION ARCHAEOLOGICAL WALKDOWN REPORT FOR
THE PHEZUKOMOYA WIND ENERGY FACILITY OUTSIDE NOUPOORT
IN THE NORTHERN CAPE**

Prepared for

Arcus Consultancy Services South Africa (Pty) Ltd

On behalf of

EDF Renewables (South Africa) (Pty) Ltd

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Archaeology and Heritage Specialists

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DETAILS OF THE SPECIALIST

This study has been undertaken by John Gribble BA Hons, MA (ASAPA) and Gail Euston-Brown BA of ACO Associates CC, archaeologists and heritage consultants.

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CONSULTANT DECLARATION OF INDEPENDENCE

I, John Gribble, declare that – general declaration:

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.

Signature of the specialist:

A handwritten signature in black ink, appearing to read 'J. Gribble', enclosed within a large, loopy circular flourish.

Name of company (if applicable): ACO Associates CC

Date: 16 February 2022

EXECUTIVE SUMMARY

ACO Associates CC was appointed by Arcus Consultancy Services South Africa (Pty) Ltd, on behalf of EDF Renewables (South Africa) (Pty) Ltd, to conduct a pre-construction walkdown survey of the authorised Phezukomoya Wind Energy Facility located outside Noupoot in the Northern Cape.

The Phezukomoya WEF has been subject to two previous archaeological assessments as part of the Environmental Impact Assessment in 2017 and a Part 2 Environmental Authorisation Amendment Application in 2019 when the authorised WEF was split into two: the Phezukomoya and Hartebeesthoek West WEFs.

Given these previous assessments of the site, the coverage already achieved, and our knowledge of the heritage potential of the site, the pre-construction survey did not aim to resurvey the entire WEF layout, but rather to fill in gaps in previous survey coverage particularly in accessible areas where there was the potential for archaeological sites and material to be present.

Findings: The three surveys, which took place in 2017, 2019 and 2021, of the Phezukomoya WEF indicate that there are very few archaeological sites on the mountaintops of the area, which tends to confirm what has proved to generally be the case across the Karoo: that high ridges, which are dry, windswept and very cold in winter, seldom attracted more than passing prehistoric human occupation.

The surveys identified a number of archaeological occurrences or sites and a number of historical period kraals and ruins within the proposed WEF area. Many of the archaeological sites consisted of surface scatters of small numbers of heavily patinated hornfels stone artefacts of Middle Stone Age origin, of low archaeological significance. However, a number of more significant Later Stone Age lithic scatters and an extensive MSA scatter in front of a small rock shelter were also recorded. No rock engravings or San rock paintings were identified. The historical period sites include stone-built kraals, boundary walling and a well-preserved 'wolwehok'.

With respect to the sites identified within the WEF area in 2017, the Heritage Impact Assessment (HIA) made the following recommendation:

- Archaeological site **JG029**, which was located less 50 m from a proposed WTG position must either be avoided or, if this is not possible, must be subject to professional collection of archaeological material.

The 2019 reduction in WTG numbers and the change in their positions has removed this potential impact to this site. However, the site is less than 30 m from a road/ cable alignment and care must be taken during the construction of the WEF to ensure that it can be, and is, avoided. To this end a no-go area of 20 m is recommended around **JG029**. If this is not possible, the 2017 mitigation measure (i.e. the professional collection of the archaeological material) must be implemented.

Although not subject to a no-go zone in the 2017 HIA, it is recommended that the well-preserved 'wolwehok' (**JG031/ JR022**) on the road up onto the Afrikaberg must be protected from any potential impacts associated with the construction of the WEF.

The 2019 EA Amendment Report noted the following in respect of archaeological sites identified during the archaeological fieldwork that are likely to be impacted by the new WEF layout and made the following recommendations regarding mitigation measures to be implemented:

- The stone artefact scatter **JG025/ JG026/ JR018** will be affected by the cable/ road alignment and the archaeological material on the site must either be collected by an archaeologist prior to construction work or the cable/ road alignment must be adjusted to avoid the site. If the latter option is chosen, the site must be cordoned off during construction activities and treated as a no-go area by WEF staff and contractors.
- **JG027/ JR019** is sufficiently distant from the cable/ road alignment not to be directly impacted. It is recommended, however, that site is cordoned off during construction activities and treated as a no-go area by WEF staff and contractors;
- The dense scatter of MSA lithics at **JG039** is sufficiently distant from the cable/road alignment not to be directly impacted but it was recommended, that site is cordoned off during construction activities and treated as a no-go area by WEF staff and contractors; and
- The rock shelter, MSA lithic scatters and historical kraal wall at **JG040** must be cordoned off during construction activities and treated as a no-go area by WEF staff and contractors. It is further recommended that the no-go area must include the mapped extent of this site.
- No mitigation was required for the packed stone wall between **JG033** and **JG034**, which will need to be breached for the cable/ road. However, damage to the wall should be kept to a minimum and the required breach kept as small as possible.

Based on the current WEF layout, the remainder of the archaeological and historical sites identified in 2017 and 2019 are sufficiently distant from WEF infrastructure not to be affected, or of sufficiently low heritage significance (i.e. not conservation-worthy) that their loss, should it occur, would be tolerable.

With regard to measures to mitigate potential impacts on the significant sites identified in the 2021 survey, the following are recommended:

- The position of the proposed western boundary of the laydown area within which site **J101** is located is shifted 50 m eastwards so that the site can be avoided and a no-go area of 20 m is established around J101. Alternatively, the archaeological material on the site must be collected by an archaeologist prior to construction work taking place.
- The cable/ road alignment to the WTG 201-209 string is shifted at least 30 m eastwards of its current alignment in the vicinity of the stone kraal (**J104-J106/ G104-G106**) to ensure that this site is not impacted. In addition, a no-go area of 20 m must be established around the area defined by the waypoints J104-J106 and G104-G106.
- The dense Lockshoek lithic scatter (**J128-J130/ G015-G016**) lies directly on the cable/ road alignment and should be archaeologically sampled and collected by a professional archaeologist prior to the commencement of construction work.
- The historical farm ash heap defined by **J1351** and **G023** lies directly on the cable/ road alignment and should be archaeologically sampled by a professional archaeologist prior to the commencement of construction work.

- If possible, the size of the laydown area on the farm Vrede within which the system of field boundary walls (**J137-J139/ J141/ G026-G030**) is located should be reduced to avoid impact to these walls.

It is likely that archaeological sites and artefacts that have not been identified will be present within the Phezukomoya WEF and may be subject to impacts arising from its the construction. However, the extensive survey work carried out on the WEF site and the nature of the sites that have been recorded within the WEF suggest that should such sites occur, they will tend to be isolated artefacts or thin open scatters of mainly MSA lithics on deflated erosion surfaces, which are of limited archaeological value and significance. It is unlikely that significant archaeological sites will be impacted by the construction of the WEF.

With regard to rock art and rock engravings, the geology of the WEF site does not lend itself to rock shelters where rock art may be present, and the type of patinated dolerite boulders which often have rock engravings were not noted on the site during the various surveys. It is recommended, however, that in the unlikely event that either rock art or rock engravings are encountered during the construction of the WEF, work must cease in their vicinity, they must be cordoned off and left *in situ* and SAHRA must be informed of the discovery so that a decision can be made about how to deal with them.

Should any human remains be encountered at any stage during earthworks associated with the project, work in the vicinity must cease immediately, the remains must be left *in situ* but made secure and the project archaeologist and SAHRA must be notified immediately so that a decision can be made about how to mitigate the find.

Contractors must be made aware of the presence of the no-go areas recommended above and EDF Renewables, through the project Environmental Compliance Officer, must ensure that these heritage exclusion zones are implemented and respected.

The Environmental Management Programme Report for the Phezukomoya WEF requires no change in respect to the assessment of impacts on archaeological sites and materials. It will need to be updated, however, to reflect the revised mitigation measures recommended in this report.

Conclusion: This assessment has found that while a number of significant heritage resources may be impacted by the construction of the Phezukomoya WEF, provided the mitigation measures recommended in this report are implemented, the overall impact of the construction of the WEF is likely to be of low significance and tolerable from an archaeological perspective and that the proposed activity is acceptable.

GLOSSARY

Archaeology: 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.

Early Stone Age: Period of the Stone Age extending approximately between 2 million and 20 000 years ago.

Holocene: The geological period spanning the last approximately 10-12 000 years.

Hornfels: Contact metamorphic rock that has been baked and hardened by the heat of intrusive igneous rock.

Later Stone Age: Period of the Stone Age extending over the last approximately 20 000 years.

Middle Stone Age: Period of the Stone Age extending approximately between 200 000 and 20 000 years ago.

ACRONYMS

EA	Environmental Authorisation
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
GPS	Global Positioning System
HIA	Heritage Impact Assessment
LSA	Later Stone Age
MSA	Middle Stone Age
NHRA	National Heritage Resources Act
SAHRA	South African Heritage Resources Agency
WEF	Wind Energy Facility
WTG	Wind Turbine Generator

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1 INTRODUCTION AND TERMS OF REFERENCE

ACO Associates CC was appointed by Arcus Consultancy Services South Africa (Pty) Ltd (Arcus), on behalf of EDF Renewables (South Africa) (Pty) Ltd (EDF Renewables), to conduct a pre-construction walkdown survey of the authorised Phezukomoya Wind Energy Facility (WEF) located outside Noupoot in the Northern Cape (Figure 1).

The Phezukomoya WEF has been subject to two previous archaeological assessments: in 2017 as part of the Environmental Impact Assessment (EIA) process (Hart et al, 2017a) and in 2019 as part of a Part 2 EA Amendment Application when the authorised WEF was split into two: the Phezukomoya and Hartebeesthoek West WEFs (Gribble & Euston-Brown, 2019a) (Figure 2).

The pre-construction survey was required as a condition (No. 37, 38 and 138) of the Environmental Authorisation for the WEF issued in October 2021, to ground truth the authorised wind turbine generator (WTG) positions, internal WEF cable and roads alignments, substation sites, laydown areas, etc., to identify heritage resources which may be impacted by the construction, operation and decommissioning of the WEF, to assess their significance and provide recommendations for mitigation that can be incorporated into the project Environmental Management Programme (EMPr).

Given the previous assessments of the site, the coverage already achieved and our knowledge of the heritage potential of the site, the pre-construction survey did not aim to resurvey the entire WEF layout, but rather to fill in gaps in previous survey coverage particularly in accessible areas where there was the potential for archaeological sites and material to be present.

2 METHODOLOGY

A walkdown of areas of the WEF not previously surveyed was undertaken by John Gribble and Gail Euston-Brown of ACO Associates between 13 and 16 October 2021.

Both members of the field team carried hand-held GPS receivers (using the WGS84 datum), pre-loaded with the footprint of the project elements and other data such as the farm boundaries and previously recorded sites, and these were used to log the survey tracks (Figure 3) and record the positions of any new heritage resources identified.

This was the third and second visit to the site by John Gribble and Gail Euston-Brown, respectively, and both were suitably qualified and experienced to date and characterise any heritage resources encountered during the survey.

No trial holes were dug and no material was removed from the project area. All observations were based on visible surface material.

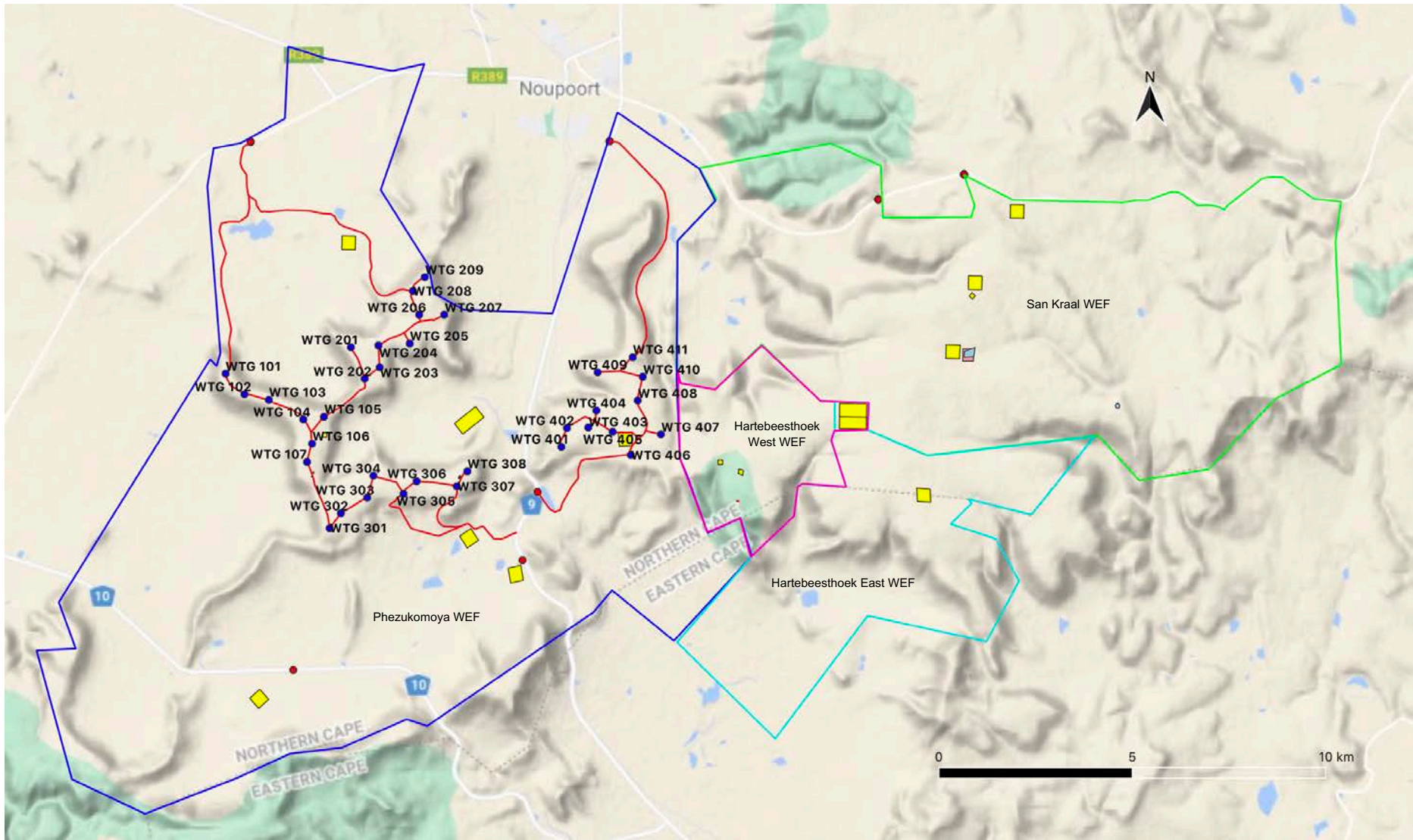


Figure 1: Location and final layout of the Phezukomoya WEF and the extents of adjacent San Kraal, and Hartebeesthoek East and West WEFs (Source: Google Earth).

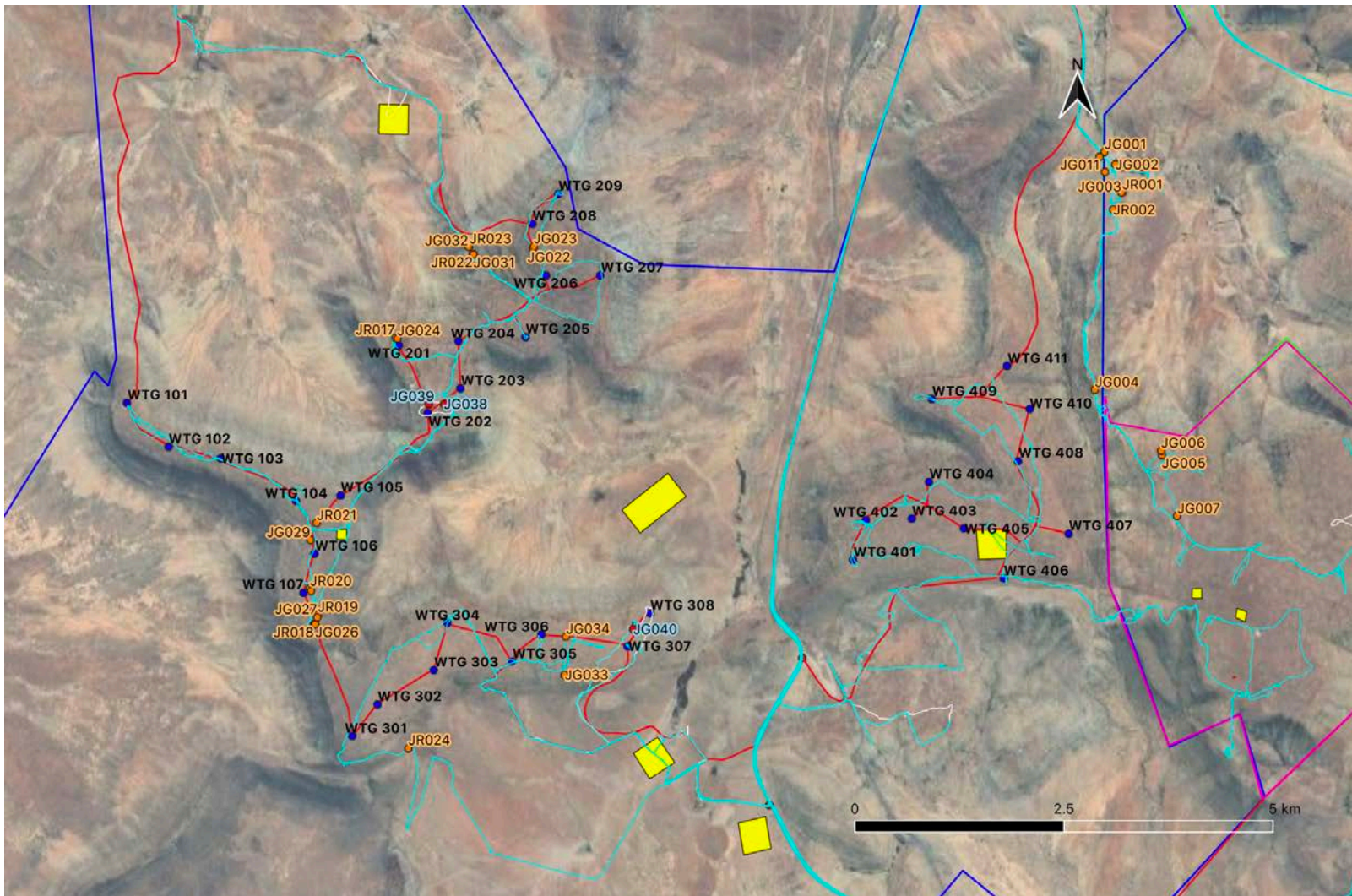


Figure 2: 2017 and 2019 archaeological survey track plots (pale blue lines) and sites (blue and orange numbers) superimposed on the current layout of the Phezukomoya WEF (Source: Google Earth).

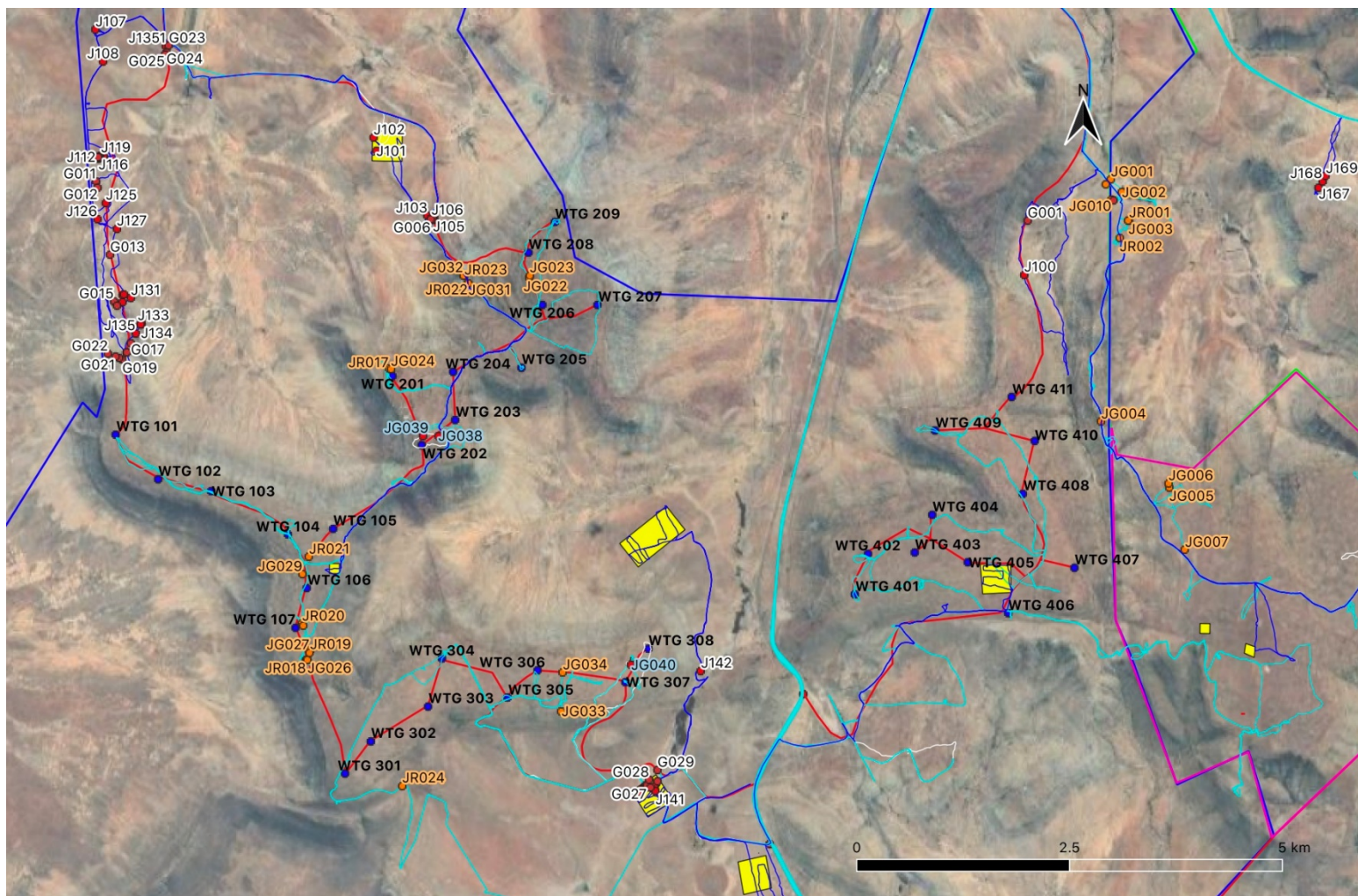


Figure 3: 2021 survey lines (dark blue) superimposed on the 2017 and 2019 archaeological survey track plots (pale blue lines) and sites (blue and orange numbers) and on the current layout of the Phezukomoya WEF (Source: Google Earth).

2.1 Restrictions and Assumptions

Access to the WEF site was generally good, as was ground visibility, with vegetation cover not unduly affecting the survey outcome. However, some areas of the site were very remote and inaccessible, both by vehicle and on foot and could not be reached in the time available.

While it was thus not possible to visit all current project components during this survey, the combined overall coverage of the 2017 and 2019 surveys, coupled with the most recent site visit information has provided a good baseline understanding of the archaeological potential of the WEF area, which is generally very low.

Many of the proposed WTG positions, as well as a good portion of infrastructure alignments for the Phezukomoya WEF have, however, been archaeologically surveyed and the confidence in the findings set out later in this report is thus high.

3 SUMMARY OF FINDINGS OF THE 2017, 2019 and 2021 STUDIES

The three surveys of the Phezukomoya WEF indicate that the pre-colonial heritage sensitivities are typical of what has been found in the area before: that like the Karoo in general, there are very few archaeological sites on the Kikvorsberge. These high ridges where the WTGs will be situated are dry, windswept and very cold in winter and seldom attracted more than passing prehistoric human occupation. Unless there is a rock shelter, a source of water or of stone raw material, these areas are not likely to be archaeologically sensitive.

Valley bottoms were more favoured by pre-colonial people for occupancy. Here there are normally sources of water, shelter from the prevailing winds as well as the potential for grazing small stock on or close to the sandy river beds. Also important were low ridges on or adjacent to flat plains. Khoikhoi kraals were almost always built adjacent to or against low ridges and cliffs. Anywhere there is a cluster of rock that provided shelter from the wind or a shallow cave inevitably has archaeological material associated with it.

3.1 2017 Survey

The 2017 EIA survey identified 14 archaeological occurrences or sites and historical period kraals and ruins within the footprint of the Phezukomoya WEF (see Hart et al 2017a).

The majority of these are ephemeral surface scatters of stone artefacts, made predominantly on hornfels and dating from the MSA. No ceramic period sites, rock engravings or San rock paintings were identified, but a number of historical period structures (a kraal, packed stone walls and a 'wolwehok') were recorded. These sites are listed in Appendix 1 along with the sites recorded in 2019 and 2021

3.2 2019 Survey

The 2019 field assessment took place as part of a EA Amendment Application which split the authorised Phezukomoya WEF into two separate WEFs: Phezukomoya and Hartebeesthoek West. This meant a reduction in the area covered by the Phezukomoya WEF, the number of

WTGs and changes to the layout, and required ground-truthing as part of the EA amendment process.

The 2019 archaeological field survey identified an additional four (4) archaeological occurrences and sites within the reduced footprint of the Phezukomoya WEF and these are listed in Appendix 1 along with those recorded in 2017 and more recently in 2021.

Of the four archaeological sites identified in 2019, two were graded as being significant archaeologically, with the potential to be impacted by the construction of the WEF. These were:

- **JG039**, a dense scatter of MSA lithics located within 35 m of the cable/ road alignment between WTG 201 and WTG 202 and approximately 100 m from the proposed position of WTG 202; and
- **JG040**, a rock shelter overlooking Noupoot and near WTG 308. The shelter may contain some archaeological deposit. Isolated MSA lithics were noted on the talus slope of the shelter and large numbers were recorded on two rocky platforms in front of and below the shelter. The cable/ road alignment between WTG 307 and WTG 308 passed within 35 m of the rear of the shelter.

The EA Amendment report also found that the 14 sites recorded on the WEF in 2017 all remained within the new boundary of the amended Phezukomoya WEF and that two of these sites (**JG025/ JG026/ JR018** and **JG027/ JR019**) were located within 20 and 50 m respectively of inter-turbine cable alignments and were considered likely to be impacted by the new WEF layout.

The revised 2019 layout of the WEF meant that the well-preserved packed stone 'wolwehok' (**JG031/ JR022**) and kraal walling (**JG032/ JR023**) on the farm road up onto the Afrikaberg from Kleinfontein, would no longer be affected by the cable/ road alignment up onto the mountaintop, as was the case with the authorised 2017 layout.

3.3 2021 Pre-Construction Survey

The 2021 pre-construction survey concentrated on visiting a number of infrastructure areas within the WEF and a cable/road alignment not previously surveyed (see Figure 4 and Figure 5) for input into the final EMPr and final microsituated turbine layout.

The survey identified 19 new archaeological occurrences or sites and 10 historical stone built structures of various types and these are described in Appendix 1 below. None of these new findspots are located on the mountaintops where the WTGs will be installed.

Of the new sites, three archaeological stone scatters (**J107, J108, J142**) will not be affected by the project but were described and noted for the record because they were encountered on the farm roads used to access the survey areas.

Many of the other sites encountered are also sufficiently distant from the nearest WEF infrastructure element not to be impacted during construction. For example, the cluster of stone cairns (**J109-J124/ G007-G010**) is at least 90 m from road/ cable alignment and is thus unlikely to be impacted.

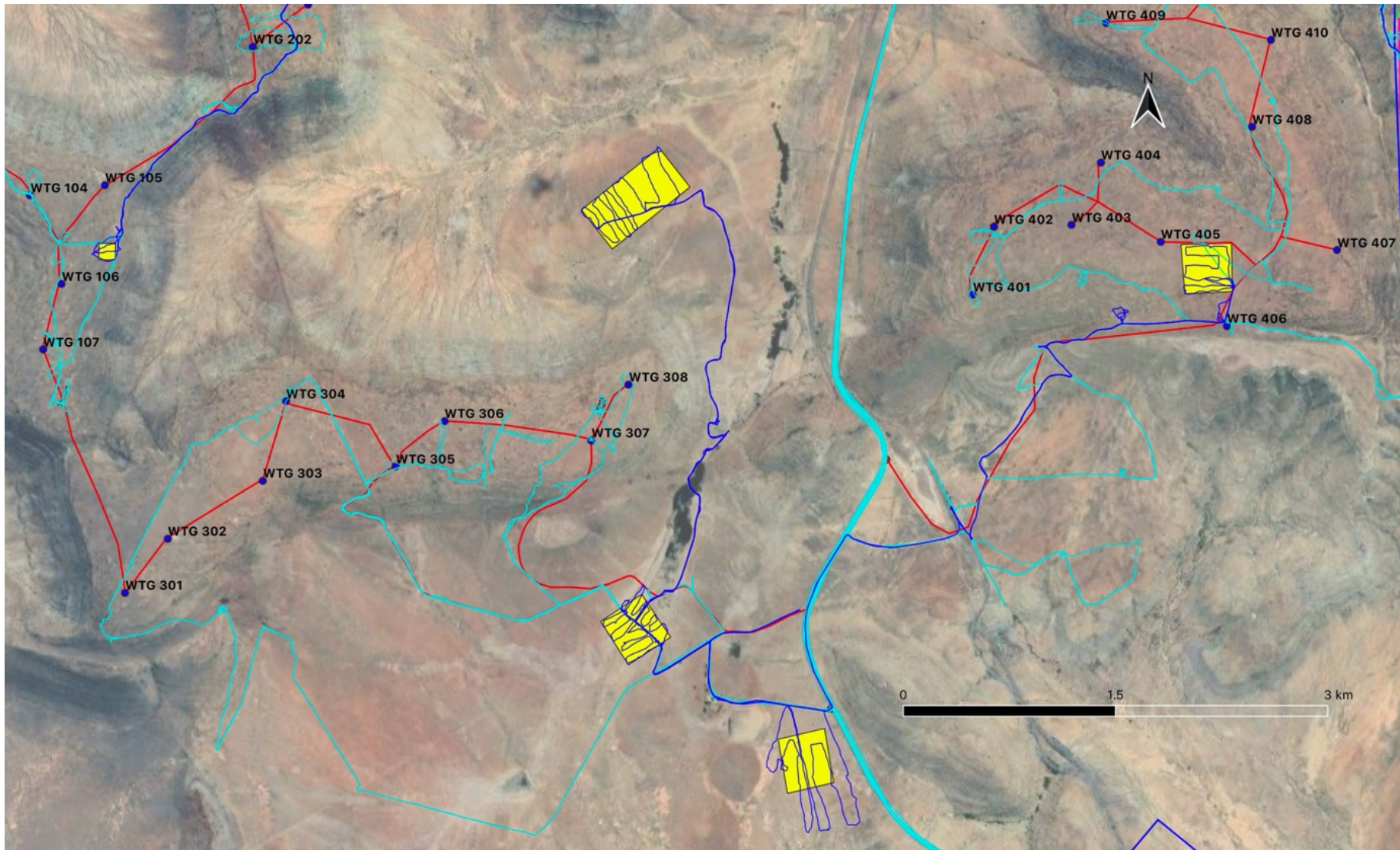


Figure 4: Phezukomoya WEF Infrastructure areas (yellow) which were surveyed in 2021. Survey tracks shown as dark (2021) and pale blue (2017 and 2019) (Source: Google Earth).

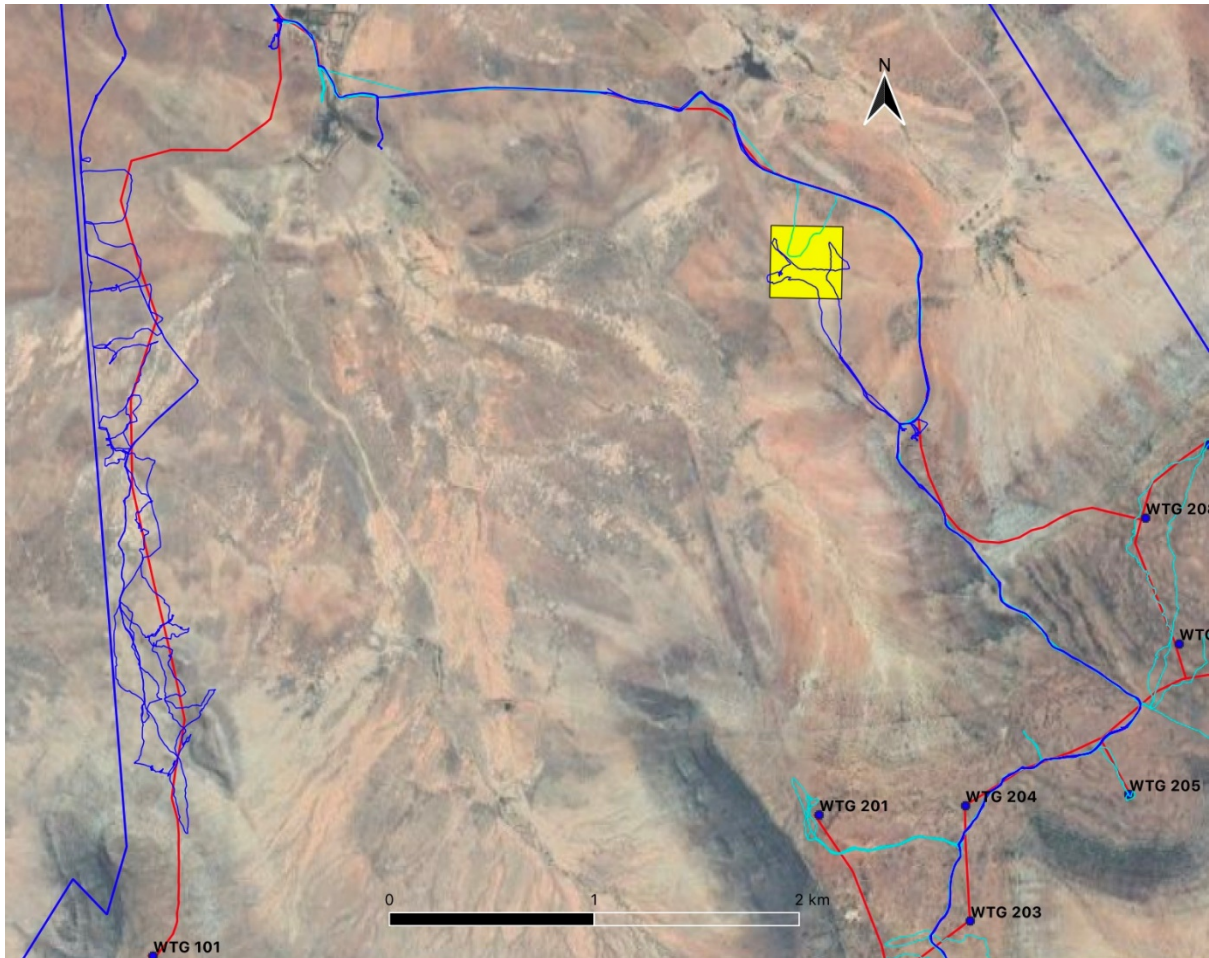


Figure 5: Cable/road alignment (left) and laydown area (yellow on right) which were two of the areas targeted for survey in 2021. Survey tracks shown as dark (2021) and pale blue (2017 and 2019) (Source: Google Earth).

The following (5) sites of archaeological or heritage significance (highlighted in Appendix 1) have the potential to be impacted by WEF:

- **J101:** A MSA/LSA? lithic scatter inside the western boundary of a laydown area on the farm Kleinfontein (Figure 6). Hornfels flakes and a core were noted, apparently associated with an outcropping of hornfels chunks adjacent to a dolerite dyke;
- **J104-J106/ G104-G106:** A roughly circular stone kraal, approximately 40 x 40 m in extent with an internal dividing wall, built on and adjacent to a dolerite dyke using dolerite cobbles. It is not clear if the kraal is Khoikhoi or historical. The cable/ road alignment to the WTG 201-209 string passes within 5 m of the kraal (Figure 7);
- **J128-J130/ G015-G016:** A widespread and dense scatter of LSA Lockshoek lithics in erosion gullies and on sheetwash on slope below a rocky outcrop (Figure 8). Visible in area at least 80 x 150 m the lithics include substantial numbers of end- or duck-billed scrapers typical of the Lockshoek. This site lies directly on the cable/ road alignment;

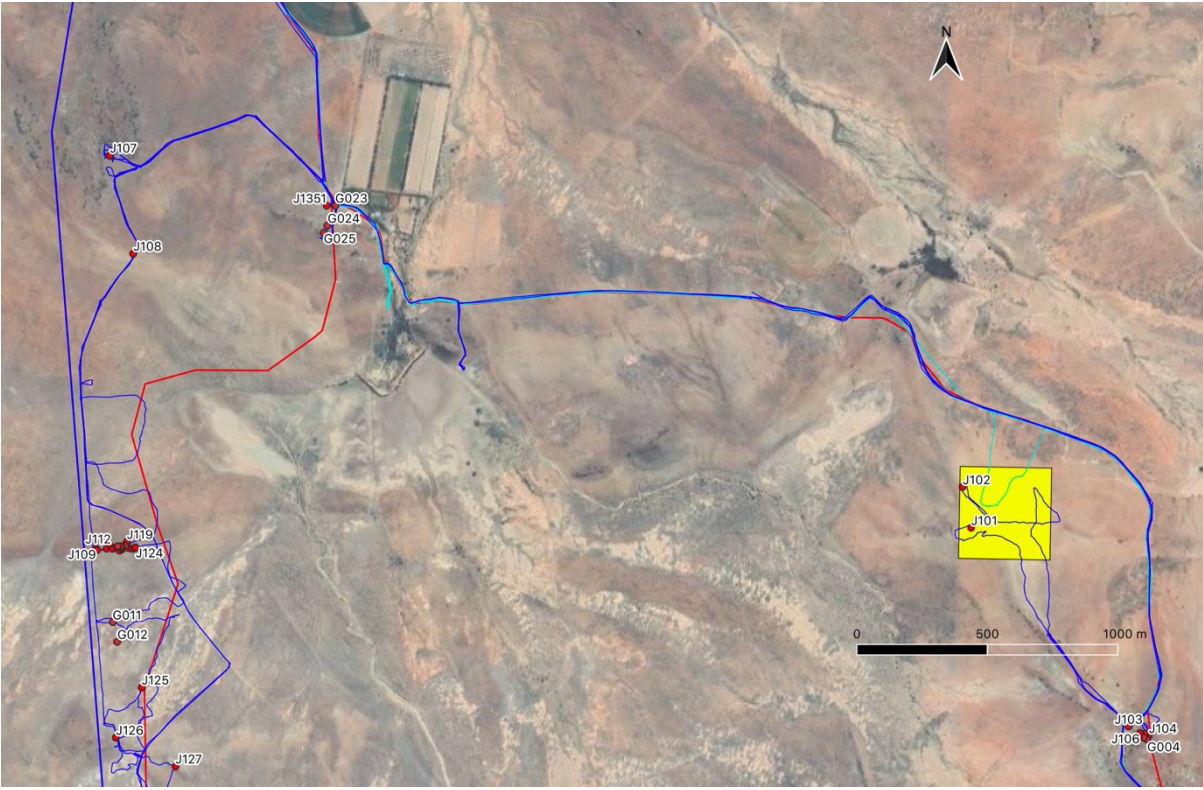


Figure 6: The location of site J101 within the yellow polygon of a proposed laydown area (Source: Google Earth).

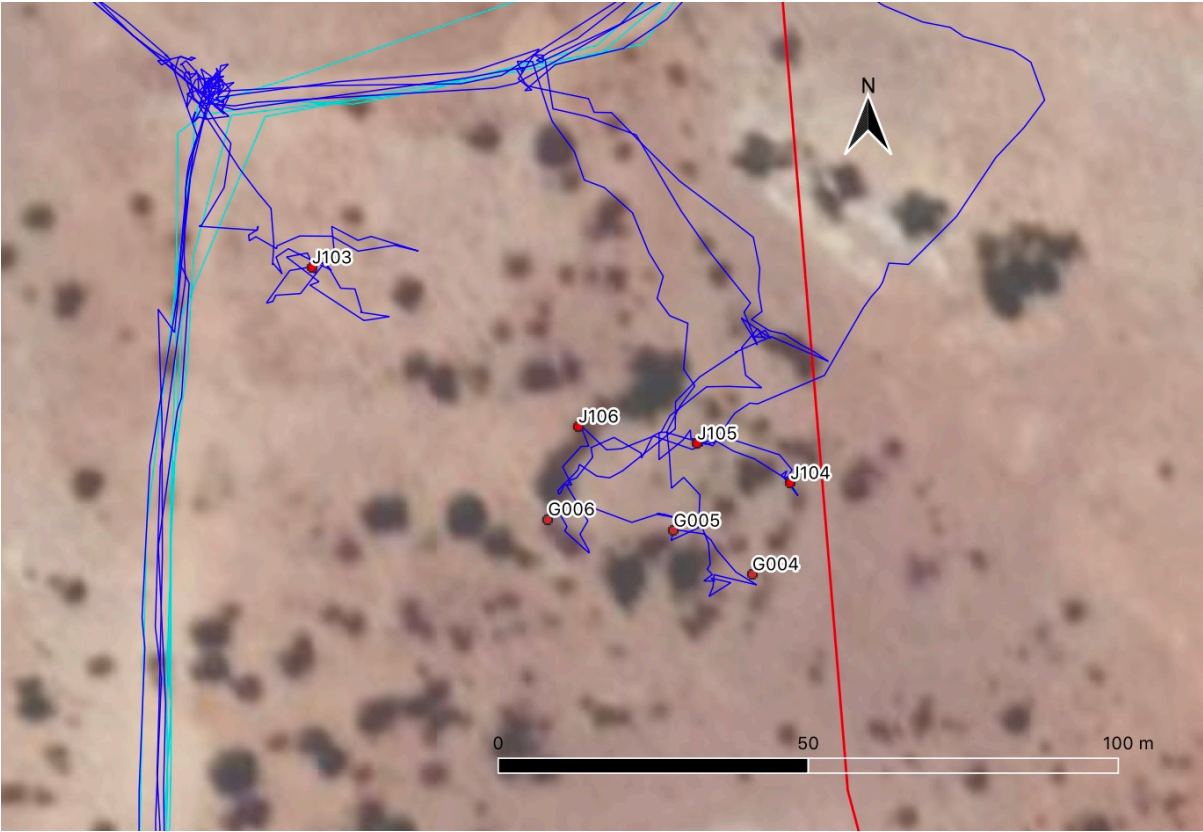


Figure 7: The extent of the stone kraal (J104-J06/ G004-G006) and its position relative to the proposed cable/ road alignment (Source: Google Earth).

- **J1351/ G023:** Historical farm ash heap approximately 30 x 7 m in extent with depth of deposit of about 20 cm. Rich in bone, mid- to late 19th century ceramics, glass, metal. Pre-colonial lithics noted. This site lies directly on the cable/ road alignment (Figure 9); and
- A system of field boundary walls (**J137-J139/ J141/ G026-G030**) are located within one of the laydown areas on the farm Vrede (Figure 10).

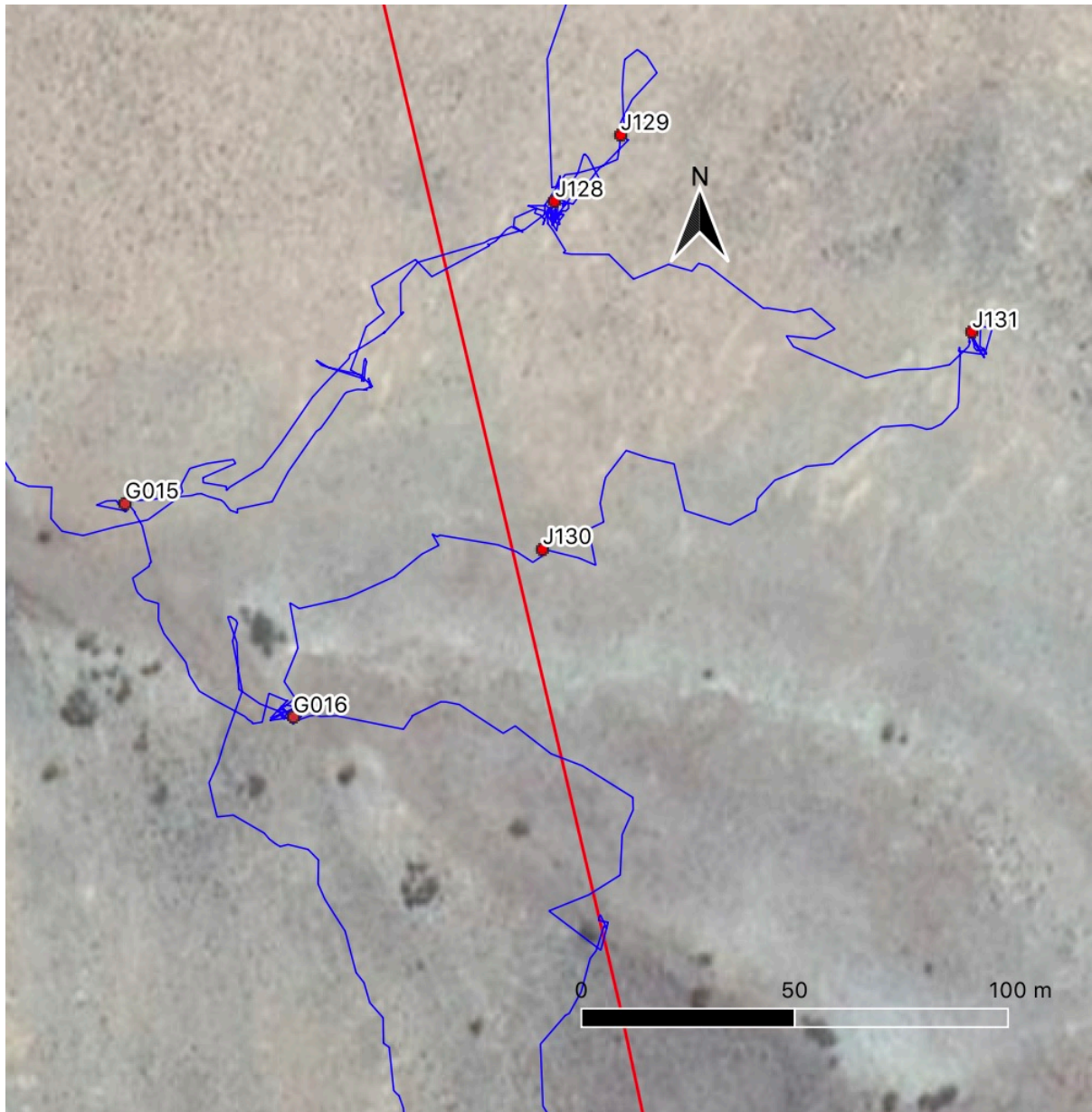


Figure 8: The position of the dense Lockhoek stone scatter, roughly bounded by J128-J130 and G015-G016, with the proposed cable/ road alignment passing through the site (Source: Google Earth).



Figure 9: The historical farm ash heap (**J1351/ G023**) directly on the proposed cable/ road alignment (Source: Google Earth).

4 POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

The current design and layout of the Phezukomoya WEF has taken into account the results of the 2017 and 2019 archaeological assessments.

With respect to the sites identified within the WEF area in 2017, the HIA made the following recommendation:

- Archaeological site **JG029**, which was located less 50 m from a proposed WTG position must either be avoided or, if this is not possible, must be subject to professional collection of archaeological material.

The 2019 reduction in WTG numbers and the change in their positions has removed this potential impact to this site. However, the site is less than 30 m from a road/ cable alignment and care must be taken during the construction of the WEF to ensure that it can be, and is, avoided. To this end a no-go area of 20 m is recommended around **JG029**. If this is not

possible, the 2017 mitigation measure (i.e. the professional collection of the archaeological material) must be implemented.

Although not subject to a no-go zone in the 2017 HIA, it is recommended that the well-preserved 'wolwehok' (**JG031/ JR022**) on the road up onto the Afrikaberg must be protected from any potential impacts associated with the construction of the WEF.

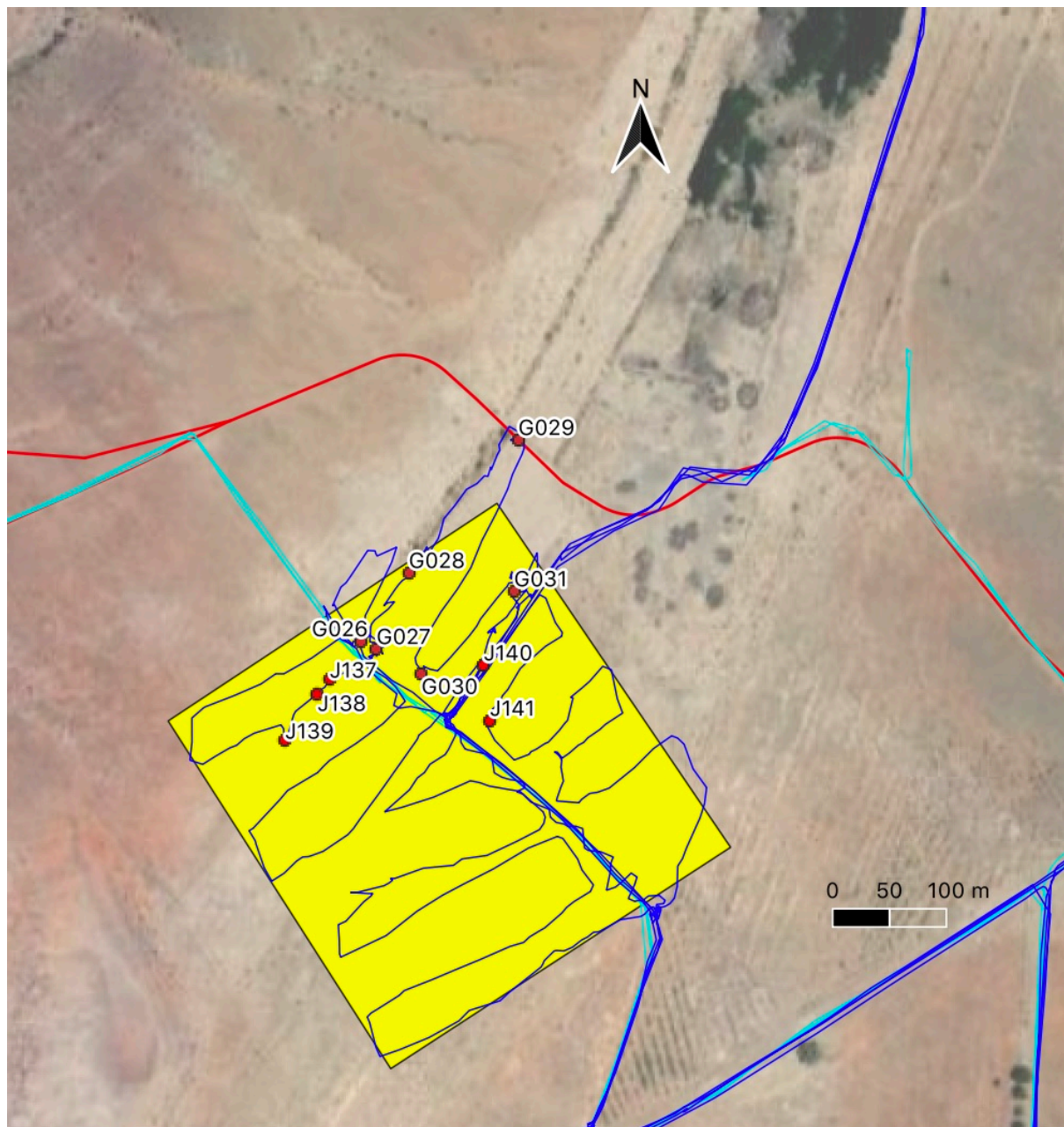


Figure 10: Field boundary walls (J137-J139/ J141/ G026-G030) within one of the laydown areas on the farm Vrede (Source: Google Earth).

The 2019 EA Amendment Report noted the following in respect of archaeological sites identified during the archaeological fieldwork that are likely to be impacted by the new WEF layout and made the following recommendations regarding mitigation measures to be implemented:

- The stone artefact scatter **JG025/ JG026/ JR018** will be affected by the cable/ road alignment and the archaeological material on the site must either be collected by an archaeologist prior to construction work or the cable/ road alignment must be adjusted to avoid the site. If the latter option is chosen, the site must be cordoned off during construction activities and treated as a no-go area by WEF staff and contractors.
- **JG027/ JR019** is sufficiently distant from the cable/ road alignment not to be directly impacted. It is recommended, however, that site is cordoned off during construction activities and treated as a no-go area by WEF staff and contractors;
- The dense scatter of MSA lithics at **JG039** is sufficiently distant from the cable/road alignment not to be directly impacted but it was recommended, that site is cordoned off during construction activities and treated as a no-go area by WEF staff and contractors; and
- The rock shelter, MSA lithic scatters and historical kraal wall at **JG040** must be cordoned off during construction activities and treated as a no-go area by WEF staff and contractors. It is further recommended that the no-go area must include the mapped extent of this site shown in Figure 11 below.
- No mitigation was required for the packed stone wall between **JG033** and **JG034**, which will need to be breached for the cable/ road. However, damage to the wall should be kept to a minimum and the required breach kept as small as possible.

Based on the current WEF layout, the remainder of the archaeological and historical sites identified in 2017 and 2019 are sufficiently distant from WEF infrastructure not to be affected, or of sufficiently low heritage significance (i.e. not conservation-worthy) that their loss, should it occur, would be tolerable.

With regard to measures to mitigate potential impacts on the significant sites identified in the 2021 survey, the following are recommended:

- The position of the proposed western boundary of the laydown area within which site **J101** is located is shifted 50 m eastwards so that the site can be avoided and a no-go area of 20 m is established around J101. Alternatively, the archaeological material on the site must be collected by an archaeologist prior to construction work taking place.
- The cable/ road alignment to the WTG 201-209 string is shifted at least 30 m eastwards of its current alignment in the vicinity of the stone kraal (**J104-J106/ G104-G106**) to ensure that this site is not impacted. In addition, it is a no-go area of 20 m must be established around the area defined by the waypoints J104-J106 and G104-G106.
- The dense Lockshoek lithic scatter (**J128-J130/ G015-G016**) lies directly on the cable/ road alignment and should be archaeologically sampled and collected by a professional archaeologist prior to the commencement of construction work.
- The historical farm ash heap defined by **J1351** and **G023** lies directly on the cable/ road alignment and should be archaeologically sampled by a professional archaeologist prior to the commencement of construction work.
- If possible, the size of the laydown area on the farm Vrede within which the system of field boundary walls (**J137-J139/ J141/ G026-G030**) is located should be reduced to avoid impact to these walls.

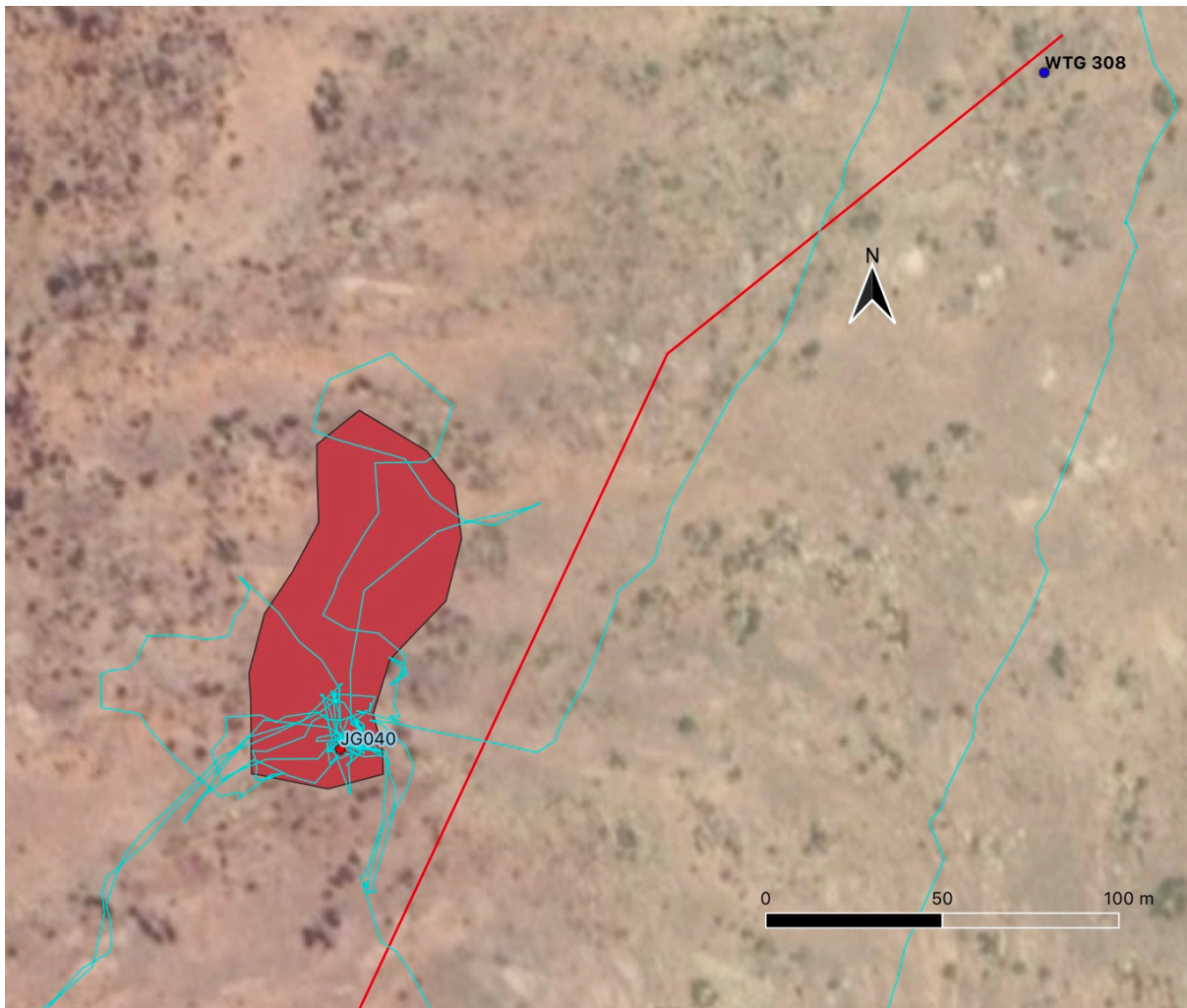


Figure 11: Mapped extent of site JG040 (red polygon) which must be included within the no-go area to be implemented around the site (Source: Goolge Earth).

It is likely that archaeological sites and artefacts that have not been identified will be present within the Phezukomoya WEF and may be subject to impacts arising from its the construction. However, the extensive survey work carried out on the WEF site and the nature of the sites that have been recorded within the WEF suggest that should such sites occur, they will tend to be isolated artefacts or thin open scatters of mainly MSA lithics on deflated erosion surfaces, which are of limited archaeological value and significance. It is unlikely that significant archaeological sites will be impacted by the construction of the WEF.

With regard to rock art and rock engravings, the geology of the WEF site does not lend itself to rock shelters where rock art may be present, and the type of patinated dolerite boulders which often have rock engravings were not noted on the site during the various surveys. It is recommended, however, that in the unlikely event that either rock art or rock engravings are encountered during the construction of the WEF, work must cease in their vicinity, they must be cordoned off and left *in situ* and SAHRA must be informed of the discovery so that a decision can be made about how to deal with them.

Should any human remains be encountered at any stage during earthworks associated with the project, work in the vicinity must cease immediately, the remains must be left *in situ* but

made secure and the project archaeologist and SAHRA must be notified immediately so that a decision can be made about how to mitigate the find.

Contractors must be made aware of the presence of the no-go areas recommended above and EDF Renewables, through the project Environmental Compliance Officer, must ensure that these heritage exclusion zones are implemented and respected.

The Environmental Management Programme Report for the Phezukomoya WEF requires no change in respect to the assessment of impacts on archaeological sites and materials. It will need to be updated, however, to reflect the revised mitigation measures recommended in this report.

5 HERITAGE MANAGEMENT PLAN

The purpose of this heritage management plan (HMP) is to provide a framework, under the EMP, for the management of heritage resources during the construction, operation and decommissioning of the Phezukomoya WEF. The management of the palaeontological resources present within the WEF is dealt with in separate HMP.

The objective of the HMP is to put in place clear and practical management actions to ensure that heritage resources within the WEF development are protected and conserved and, where they occur, impacts to these resources are appropriately managed and mitigated.

The HMP below identifies:

- What heritage resources require management;
- Who will carry out the management of heritage resources;
- Appropriate management and mitigation actions to be implemented to ensure that heritage resources are not negatively impacted during the construction, operation and decommissioning of the WEF; and
- Procedures and processes to follow in the event of negative impact to previously identified or new discovered heritage resources during the construction, operation and decommissioning of the WEF.

5.1 Heritage Resources Requiring Management

The known heritage resources within the Phezukomoya WEF identified in the HIA and this pre-construction walkdown report are listed in Appendix 1 below and consist of MSA and LSA archaeological occurrences or sites and of historical period kraals, ruins and a midden.

These heritage sites and materials are protected by the National Heritage Resources Act (NHRA) (25 of 1999) which provides protection for various categories of heritage resource from unauthorised disturbance, damage, or destruction, thereby ensuring their protection and preservation for the future.

The identified heritage resources within the Phezukomoya WEF have been graded, in terms of the provisions of section 3 of the NHRA and the gradings for each site are shown in Appendix 1 below. Grading provides an indication of the significance and heritage value of a heritage resource and, in the context of a development such as the Phezukomoya WEF, is key to the management of such resources.

5.2 Responsibility for the Management of Heritage Resources

The Phezukomoya WEF is located in the Northern Cape and therefore, falls under the jurisdiction of the Northern Cape Provincial Heritage Resources Authority.

However, the management of archaeological resources in the Northern Cape is currently undertaken by SAHRA, on behalf of the provincial agency. Any management of heritage resources within the Northern Cape must, therefore, follow the prescripts of the NHRA and the processes established by SAHRA.

The contact details for SAHRA are:

South African Heritage Resources Agency (SAHRA)	
Contact Person:	Mr P Hine (Manager: Archaeology, Palaeontology and Meteorites Unit)
Address:	111 Harrington Street, Cape Town, 8001
Tel:	021 462 4502
Email:	phine@sahra.org.za info@sahra.org.za
Website:	https://www.sahra.org.za

The ultimate responsibility for ensuring that heritage resources within the boundaries of the WEF are appropriately protected and managed during construction, operation, and decommissioning rests with the Project Company, EDF Renewables.

It is expected that the Project Company will appoint an independent environmental control officer (ECO) and/ or environmental officer (EO) to monitor the project compliance with the EMPr and conditions of the environmental authorisation.

The ECO and/or EO is expected to be in constant liaison with contractors and WEF staff and will be the key person(s) responsible for ensuring the effective day to day management of heritage resources for the project. The ECO and/ or EO will be expected to:

- Monitor the implementation of and compliance with the heritage management specifications and mitigation measures set out in the EMPr;
- Keep a register of compliance/non-compliance with the heritage management specifications;
- Identify and assess previously unforeseen, actual or potential impacts on heritage resources; and
- Ensure that regular heritage management monitoring reports are produced.

5.3 Potential Impacts to Identified Heritage Resources: Construction, Operational and Decommissioning Phases

The archaeological occurrences or sites and historical period kraals and ruins within the final boundary of the amended Phezukomoya WEF are listed in Appendix 1.

Final changes to the WEF layout mean that a number of identified heritage sites are now sufficiently distant from WEF infrastructure not to be affected, or of sufficiently low heritage significance that their loss, should it occur, would be tolerable. However, the following sites have the potential to be impacted during the construction, operation and decommissioning of the WEF and the following mitigation measures must be implemented:

- The position of the proposed western boundary of the laydown area within which site **J101** is located should be shifted 50 m eastwards so that the site can be avoided. A no-go area of 20 m must then also be established around **J101** while the laydown area is in use. Alternatively, the archaeological material on the site must be collected by an archaeologist prior to construction work taking place;
- The cable/ road alignment to the WTG 201-209 string should be shifted at least 30 m eastwards of its current alignment in the vicinity of the stone kraal (**J104-J106/ G104-G106**) to ensure that this site is not impacted. A no-go area of 20 m deep must then be established around the area defined by the waypoints **J104-J106 and G104-G106**;
- The dense Lockshoek lithic scatter **J128-J130/ G015-G016** is directly on the cable/ road alignment and must be archaeologically sampled and collected by a professional archaeologist prior to the commencement of construction work;
- The historical farm ash heap defined by **J1351 and G023** is directly on the cable/ road alignment and must be archaeologically sampled by a professional archaeologist prior to the commencement of construction work; and
- If possible, the size of the laydown area on the farm Vrede, within which the system of field boundary walls (**J137-J139/ J141/ G026-G030**) is located, should be reduced to avoid impact to these walls.

The following no-go areas/ exclusion zones must be implemented:

- The rock shelter, MSA lithic scatters and historical kraal wall at **JG040** must be cordoned off during construction activities and treated as a no-go area by WEF staff and contractors. The no-go area must include the mapped extent of this site;
- A 20 m no-go area must be implemented around **JG029**;
- The well-preserved 'wolwehok' (**JG031/ JR022**) on the road up onto the Afrikaberg must be placed off limits and protected from any potential impacts associated with the construction of the WEF; and
- The areas recorded as **JG025/ JG026/ JR018 and JG027/ JR019** must be cordoned off during construction activities and treated as a no-go area by WEF staff and contractors.

No mitigation was required for the packed stone wall between **JG033 and JG034**, which will need to be breached for the cable/ road. However, damage to the wall must be kept to a minimum and the required breach kept as small as possible.

No other site-specific archaeological mitigation measures have been recommended for the WEF, but the following general measures must be implemented to ensure that there are no negative impacts to heritage resources during the various phases of the development:

Currently unidentified archaeological sites, artefacts and structures may be present within the Phezukomoya WEF and may be subject to impacts arising from activities associated with the construction, operation and decommissioning of the WEF.

In the unlikely event that archaeological material, rock art or rock engravings or historical structures are encountered during the construction of the WEF, work must cease in the vicinity, they must be cordoned off and left *in situ*. SAHRA must be informed of the discovery and a suitably qualified archaeologist must be called in to investigate the occurrence so that a decision can be made about how to deal with it.

The identified stone-built structures and any others encountered within the WEF must be protected from vandalism or damage and no stone may be robbed from such structures.

In the event that human remains are uncovered during the construction of the WEF, the Contractor must immediately stop work in that area and notify the ECO and/ or EO who must ensure that the remains are made secure and left in situ. The project archaeologist and SAHRA must immediately be informed of the find so that a decision can be made about how to mitigate the remains. This may require inspection by the archaeologist to determine whether mitigation should take place and what form that mitigation should take. An application to SAHRA for an emergency permit for the archaeologist to excavate and recover the remains may also be required.

5.4 Staff and Contractor Awareness

The ECO and/ or EO must ensure that the Contractor(s) and all site crews/staff are made aware of the heritage resources on the site, the mitigation measures set out above, and the steps to take if human remains or new archaeological material is encountered on site.

It is recommended that this information is presented in the site induction programme for project staff and in any refresher programmes that may occur.

5.5 Revision of HMP

This HMP is a living document that can and must be reviewed and updated to reflect any changes to the heritage information for the site or the management protocols set out above.

The HMP must be revised every five (5) years, or more regularly should circumstances require it.

6 CONCLUSION

This assessment has found that while a number of significant heritage resources may be impacted by the construction of the Phezukomoya WEF, provided the mitigation measures recommended in this report are implemented, the overall impact of the construction of the WEF is likely to be of low significance and tolerable from an archaeological perspective and that the proposed activity is acceptable.

7 REFERENCES

Gribble, J. & Euston-Brown, G.L. 2019a. *Archaeological Amendment Report: Phezukomoya Wind Energy Facility, Noupoort, Northern Cape*. Unpublished report prepared for Arcus Consulting. ACO Associates/

Hart, T.G., Gribble, J. and Robinson, J. 2017a. *Heritage impact assessment for the proposed Phezukomoya Wind Energy Facility to be situated in the Northern Cape*. Unpublished report prepared for Arcus Consulting. ACO Associates.

APPENDIX 1: DETAILS OF RECORDED ARCHAEOLOGICAL SITES AND OCCURRENCES – PHEZUKOMOYA WEF

Green highlights = mitigation required.

Note: More than one coordinate has been recorded for certain sites below, to provide an indication of the extent of the site concerned.

Site	Lat S	Lon E	Type	Description	Grading
2017 Survey					
JG011	-31.218722°	24.976046°	Stone Kraal	Historical stone kraal wall. Square and bisected by property fence.	3C
JR017	-31.235352°	24.900366°	Stone Scatter	Patinated hornfels lithics on cable alignment. Approx. 25 m from JG024	NCW
JR021	-31.252362°	24.891934°	Stone Artefact	Isolated patinated hornfels flake. Probably MSA.	NCW
JG022	-31.227196°	24.915142°	Stone Artefact	Weathered MSA hornfels flake on rocky outcrop.	NCW
JG023	-31.226970°	24.915219°	Stone Scatter	Heavily patinated hornfels flakes on rocky deflation approx. 20 m from JG022	NCW
JG024	-31.235412°	24.900575°	Stone Artefact	Patinated hornfels adze-like lithic. Approx. 25 m from JR017	NCW
JR024	-31.273008°	24.901766°	Stone Scatter	Artefact scatter. Mainly hornfels. Near historic grove of poplar trees. Spring water source.	3C
JG025	-31.261637°	24.891702°	Stone Scatter	Dense stone artefact scatter in a rocky pan. Patinated hornfels and bladelets	3C
JG026	-31.261634°	24.891763°			
JR018	-31.261641°	24.891642°			
JG027	-31.260995°	24.891996°	Stone Scatter	Hornfels artefacts in adjacent pan.	3C
JR019	-31.260781°	24.892033°			
JG028	-31.258559°	24.891340°	Stone Scatter	Rocky hollow with heavily weathered stone artefacts.	NCW
JR020	-31.258400°	24.891198°			

JG029	-31.253931°	24.891254°	Stone Scatter	Deflated rocky pan with a handful of heavily weathered and patinated stone artefacts.	NCW
JG031	-31.227698°	24.908751°	Stone Structure	Packed stone 'wolwehok' / animal trap.	3C
JR022	-31.227673°	24.908710°			
JG032	-31.226969°	24.908225°	Stone Structure	Kraal walling on the network cable road down to Kleinfontein farm.	3C
JR023	-31.226979°	24.908337°			
JG033	-31.266281°	24.918577°	Stone Structure	Packed stone wall that ran across the hillside will be intersected by network cable. Two hornfels flakes.	3C
JG034	-31.262801°	24.918724°			
2019 Survey					
GEB008	-31.2455°	24.900833°	Stone Scatter	Site in shallow hollow approx. 10 x 20m in extent. Handful of MSA lithics. Same type and same material as noted at WTG202. Worn and patinated (red).	NCW
JG038	-31.241433°	24.905567°	Stone Scatter	Scatter of patinated (red) and worn MSA flakes in areas deflated into red cover sand	NCW
JG039	-31.24145°	24.903983°	Stone Scatter	Dense ($\pm 15-20$ pieces / m ²) scatter of MSA lithics on patinated (most red, some grey) hornfels. Located within hollows/ bakke in rocky platform in an area roughly 10 x 20 m. Flakes and chunks in the main. Individual pieces with what is probably later (unpatinated) retouch or edge damage.	3C
JG040	-31.2621°	24.925933°	Stone Scatter	Rock shelter near WTG 308. No obvious deposit within overhang, but plentiful MSA lithics on two rocky platforms in front of and below the shelter. Isolated LSA lithics on hornfels identified - probably Smithfield. Low packed stone wall encloses shelter. Rectangular so probably historical rather than pre-colonial.	3B
2021 Survey					
J100	-31.226906°	24.967405°	Artefact	MSA/LSA? flake, possible scraper. Somewhat waterworn but with fresh retouch. Isolated. On eroding bank with sheetwash	NCW
G001	-31.222023°	24.967767°	Artefact Scatter	Rock outcrop with evidence of low-grade occupation. Rocks placed to create shelter. Piece of glass (possibly flaked), ceramic shards and 2 x MSA hornfels flakes noted. The site is about 11 m from cable/ road.	3C

J101	-31.215728°	24.899028°	Stone Scatter	MSA/LSA? scatter. Hornfels. Flakes and 1 x core noted. Still black with only light patina. Seem to be associated with an outcropping of hornfels chunks adjacent to a dolerite dyke.	3C
J102	-31.214529°	24.898741°	Stone Scatter	MSA lithics on eroding sheetwash. ±100 m downslope of J101. Hornfels but with heavy red patina. Although no clear focus to scatter, it is fairly dense	3C
J103	-31.221576°	24.904453°	Stone Scatter	Lithic scatter. Possibly MSA or early LSA. Hornfels. Adjacent to dolerite dyke. Appears to have been exploiting naturally outcropping hornfels. Flakes, radial core with light patina. Chunks. Site lies next to existing farm road up the mountain.	3C
J104	-31.221843°	24.905146°	Stone Kraal	Roughly circular stone kraal built on and adjacent to a dolerite dyke and constructed with dolerite cobbles. Approximately 40 x 40 m in extent. Walls up to 60 cm high in places. A dividing wall runs downslope from G005 to J105. North-western wall heavily overgrown with bushes creating a dense screen. Not clear if it is Khoi or historical. This site lies approximately 5 m from the cable/ road alignment.	3C
J105	-31.221794°	24.905011°			
J106	-31.221773°	24.904839°			
G004	-31.221956°	24.905091°			
G005	-31.221902°	24.904977°			
G006	-31.221888°	24.904795°			
J107	-31.204772°	24.869390°	Stone Scatter	Stone scatter on sandy area in natural bowl in dolerite dyke. Hornfels lithics visible across and area of ± 30 x 50 m. Man appear to have been brought to the surface by meerkat / ground squirrel activity. Late LSA (Wilton) – chunks, cores and flakes. No formal tools noted. On hornfels with light grey patina and most lithics made on patinated hornfels cobbles and pebbles that occur on the site. 1 x patinated hornfels MAS flake. Not on the cable/ road alignment.	3C
J108	-31.207659°	24.870203°	Stone Scatter	Stone scatter on the rock outcrop on a low ridge. Crossed by current farm track. Mix of patinated MSA and some quite fresh LSA flakes. Scatter appears to extend along the ridge on either side of the road. Focused on presence of hornfels cobbles and pebbles on outcrop. Not on the cable/ road alignment	3C
J109	-31.216350°	24.868922°	Stone Cairn	Series of small, packed-stone cairns, each ± 50-60 cm in height. Built on a low rocky ridge. Not in a single or straight line. Rifle shells found around some. Possible hunting blind remains? Likely modern.	3C
J110	-31.216372°	24.868957°	Stone Cairn		

J111	-31.216350°	24.869270°	Stone Cairn	At least 90 m from road/ cable alignment.	
J112	-31.216272°	24.869434°	Stone Cairn		
J113	-31.216333°	24.869497°	Stone Cairn		
J114	-31.216312°	24.869645°	Stone Cairn		
J115	-31.216353°	24.869721°	Stone Cairn		
J116	-31.216390°	24.869717°	Stone Cairn		
J117	-31.216366°	24.869816°	Stone Cairn		
J118	-31.216325°	24.869838°	Stone Cairn		
J119	-31.216137°	24.869973°	Stone Cairn		
J120	-31.216316°	24.870035°	Stone Cairn		
J121	-31.216335°	24.870175°	Stone Cairn		
J123	-31.216328°	24.870253°	Stone Cairn		
J124	-31.216305°	24.870281°	Stone Cairn		
G007	-31.216246°	24.869914°	Stone Cairn		
G008	-31.216263°	24.869812°	Stone Cairn		
G009	-31.216261°	24.869745°	Stone Cairn		
G010	-31.216260°	24.869655°	Stone Cairn		
G011	-31.218508°	24.869486°	Stone Scatter	'Pan' with patinated and waterworn hornfels MSA lithics on deflated surface. Visible in area of ± 70 x 10 m.	NCW
G012	-31.219079°	24.869651°	Stone Scatter	'Pan' with patinated MSA lithics on deflated surface. Including large blade	NCW
J125	-31.220422°	24.870480°	Stone Scatter	Deflated 'pan' with a scatter of heavily patinated and worn hornfels lithics. MSA. Visible in an area ± 5 x 5 m but more lithics likely to be present under the surrounding coversands.	NWC

J126	-31.221897°	24.869600°	Stone Scatter	<p>Large, rich LSA stone scatter. Lithics visible at least 20 x 20 m around J126. Lightly patinated hornfels (Wilton?). Single non-hornfels piece recorded: possibly crystal quartz. Heavily abraded and four-sided. Some older, possibly MSA lithics present - with typical red patination but not heavily worn – including a possible endscraper (Lockshoek?). Site encircled by a dolerite dyke and on a flat gently sloping sandy area. Most lithics appear to have been brought to the surface by the burrowing of meerkats / ground squirrels.</p> <p>Site approximately 95 m from the cable/ road alignment.</p>	3C
J127	-31.222744°	24.871648°	Stone Structure	<p>Small, circular packed-stone feature on top of sandstone outcrop. ± 1.8 x 1m. Wall no more than 2 courses high at maximum. No cultural material noted. Hunting blind? Age indeterminate</p> <p>Approximately 90 m from the cable/ road alignment.</p>	3C
G013	-31.225114°	24.870940°	Stone Scatter	Large 'pan' with scatter of patinated and weathered MSA lithics on deflated surface.	NCW
J128	-31.228773°	24.872254°	Stone Scatter	<p>Large and dense scatter of LSA Lockshoek lithics in erosion gullies and on sheetwash on slope below rocky outcrop. Visible in area at least 80 x 150 m (between J129, J130, G015 and G016). Lithics not visible on the surrounding non-eroded sands but are plentiful where there is erosion. Lithics likely to occur under non-eroded coversand.</p> <p>All made on hornfels and have light grey patination. Includes a number of cores (one of which is a reused MSA flake), flakes, chunks and chips. Predominant lithics on the site are end- / duck-billed scrapers. 12 recorded in brief walkover of a small portion of the scatter.</p> <p>Lies directly on the cable/ road alignment.</p>	3C
J129	-31.228653°	24.872392°			
J130	-31.229398°	24.872228°			
G015	-31.229316°	24.871349°			
G016	-31.229701°	24.871703°			
J131	-31.229008°	24.873132°	Stone Mound	<p>Low stone mound ± 1.5 m in extent and roughly circular. Level with surrounding soil. Possibly human. Grave?</p> <p>Approximately 100 m from cable/ road alignment.</p>	3C
J132	-31.231369°	24.874225°	Stone Wall	<p>Historical boundary wall. Primarily packed dolerite. Extends up slope of hill, over shoulder across drainage and then terminates on mountain slope. Total length approximately 580 m.</p> <p>For most of its length the wall lies sufficiently distant from the cable/ road alignment not to be affected. However, the two cross at roughly J136/G018.</p>	3C
J135	-31.232198°	24.873643°			
J136	-31.233894°	24.872675°			
G017	-31.233084°	24.873134°			
G018	-31.233894°	24.872682°			

G019	-31.234563°	24.872216°			
J133	-31.231287°	24.874264°	Stone Structure	Three-sided square packed slate structure attached to northern terminus of historical boundary wall. Open to the east. Wall up to 50 cm high and ± 80 cm thick. Interior space ± 1.8 x 1.5 m. More than 150 m from cable/ road alignment.	3C
J134	-31.231416°	24.874198°	Stone Structure	Three-sided square packed slate and dolerite structure attached to eastern side of historical boundary wall roughly 20 m upslope of J133. Open to the to north-west. Walls ± 80 cm thick. Interior space ± 1.5 m ² . More than 140 m from cable/ road alignment.	3C
G020	-31.234392°	24.871910°	Stone Scatter	Stone scatter around lone boulder, approximately 20 m in extent downslope of rock. LSA Lockshoek on hornfels. Includes numbers of endscrapers. 60 m from cable/ road alignment.	3C
G021	-31.234268°	24.871497°	Stone Scatter	Stone scatter around lone boulder, within approximately 15 m radius of rock. LSA Lockshoek on hornfels. Includes numbers of endscrapers. Handful of patinated MSA lithics also noted 100 m from cable/ road alignment.	3C
G022	-31.234046°	24.870744°	Stone Scatter	Stone scatter around lone boulder, within approximately 15 m radius of rock. LSA Lockshoek on hornfels – flakes and core180 . Handful of patinated MSA lithics also noted. 180 m from cable/ road alignment.	3C
J1351	-31.206250°	24.876848°	Historical Dump	Historical farm ash heap. Approximately 30 x 7 m in extent. A digger cut on one side and meerkat burrows suggest a depth of deposit of about 20 cm. Rich in bone, mid- to late19 th century ceramics (incl. annular ware and stoneware), glass, metal. Some metal slag. Pre-colonial lithics noted. Also OES. J1351 and G023 mark the two extremities of the dump. Lies directly on the cable/ road alignment.	3C
G023	-31.206245°	24.877146°			
G024	-31.206836°	24.876886°	Stone Kraal	Rectangular stone-walled kraal on northern slope of dolerite dyke. ± 30 x 10 m. Some historical material noted within the kraal as well as a few pre-colonial lithics. Approximately 20 m from cable/ road alignment.	3C
G025	-31.207057°	24.876753°			
J137	-31.273209°	24.927225°	Stone Walling	Packed stone and earth field boundary walls. Old fruit trees present in places along wall.	3C

J138	-31.273306°	24.927129°		Lies partly within a laydown area.	
J139	-31.273621°	24.926873°			
G026	-31.272951°	24.927475°			
G027	-31.273004°	24.927595°			
G028	-31.272490°	24.927850°			
G029	-31.271592°	24.928715°			
G030	-31.273170°	24.927950°			
J141	-31.273488°	24.928490°			
G031	-31.272614°	24.928681°	Stone Scatter	Thin scatter of MSA lithics.	NCW
J140	-31.273114°	24.928442°	Stone Scatter	Handful of LSA lithics (probably Lockshoek) exposed in the farm track. 2 x large hornfels flakes and one scraper noted. Also, two red patinated MSA flakes recorded.	NCW
J142	-31.262656°	24.933305°	Stone Scatter	Dense LSA Lockshoek artefact scatter in Eskom service road on a neck between two koppies. As with other similar Lockshoek sites the lithics are visible where the surface sands have been eroded away. Hornfels. Lithic density ± 20/m and visible in area of approximately 6 around waypoint. Many endscrapers (5 recorded within a 2 m ² area), large flakes, chips and chunks. Not on the cable/ road alignment.	3C

CV – JOHN GRIBBLE

(Last updated – 30 September 2021)

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1979-1983 Wynberg Boys' High School
1986 BA (Archaeology), University of Cape Town
1987 BA (Hons) (Archaeology), University of Cape Town
1990 Master of Arts, (Archaeology) University of Cape Town

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- September 2017 – present: ACO Associates, Senior Archaeologist and Consultant
- 2014-2017: South African Heritage Resources Agency, Manager: Maritime and Underwater Cultural Heritage Unit
- 2012-2018: Sea Change Heritage Consultants Limited, Director
- 2011-2012: TUV SUD PMSS (Romsey, United Kingdom), Principal Consultant: Maritime Archaeology
- 2009-2011: EMU Limited (Southampton, United Kingdom), Principal Consultant: Maritime Archaeology
- 2005-2009: Wessex Archaeology (Salisbury, United Kingdom), Project Manager: Coastal and Marine
- 1996-2005: National Monuments Council / South African Heritage Resources Agency, Maritime Archaeologist
- 1994-1996: National Monuments Council, Professional Officer: Boland and West Coast, Western Cape Office

Professional Qualifications and Accreditation:

- Member: Association of Southern African Professional Archaeologists (ASAPA) (No. 043)
- Principal Investigator: Maritime and Colonial Archaeology, ASAPA CRM Section
- Field Director: Stone Age Archaeology, ASAPA CRM Section
- Class III Diver (Surface Supply), Department of Labour (South Africa) / UK (HSE III)

Experience:

I have more than 25 years of professional archaeological and heritage management experience. After completing my postgraduate studies and a period of freelance

archaeological work in South Africa and abroad, I joined the National Monuments Council (NMC) (now the South African Heritage Resources Agency (SAHRA)) in 1994. In 1996 I became the NMC's first full-time maritime archaeologist and in this regulatory role was responsible for the management and protection of underwater cultural heritage in South Africa under the National Monuments Act, and subsequently under the National Heritage Resources Act.

In 2005 I moved to the UK to join Wessex Archaeology, one of the UK's biggest archaeological consultancies, as a project manager in its Coastal and Marine Section. In 2009 I joined Fugro EMU Limited, a marine geosurvey company to set up their maritime archaeological section. I then spent a year at TUV SUD PMSS, an international renewable energy consultancy, where I again provided maritime archaeological consultancy services to principally the offshore renewable and marine aggregate industries.

In August 2012 I established Sea Change Heritage Consultants Limited, a maritime archaeological consultancy. Sea Change traded until 2018, providing archaeological services to a range of UK maritime sectors, including marine aggregates and offshore renewable energy.

Relevant maritime experience includes specialist archaeological consultancy for more than two dozen offshore renewable energy projects and aggregate extraction licence areas in UK waters including:

- Lynn and Inner Dowsing OWF;
- Humber Gateway OWF;
- Sheringham Shoal OWF;
- Race Bank OWF;
- Docking Shoal OWF;
- Triton Knoll OWF;
- Neart na Gaoithe OWF;
- Dogger Bank OWF;
- Hornsea OWF;
- Navitus Bay OWF;
- Aggregate Area 392/393, Hilbre Swash;
- Area 478, East English Channel;
- Area 372/1, North Nab;
- Areas 401 & 2;
- Area 466, North West Rough; and
- Area 447, Cutline.

In the UK I was also involved in strategic projects which developed guidance and best practice for the UK offshore industry with respect to the marine historic environment. This included the principal authorship of two historic environment guidance documents for COWRIE and the UK renewable energy sector (*Historical Environment Guidance for the Offshore Renewable Energy Sector* (2007) and *Offshore Geotechnical Investigations and Historic Environment Analysis: Guidance for the Renewable Energy Sector* (2010)). I was also manager and lead author in the development of the archaeological elements of the first Regional Environmental Assessments for the UK marine aggregates industry, and in the 2009 *UK Continental Shelf*

Offshore Oil and Gas and Wind Energy Strategic Environmental Assessment for Department of Energy and Climate Change. In 2013-14 I was lead author and project co-ordinator on *The UNESCO Convention on the Protection of the Underwater Cultural Heritage 2001: An Impact Review for the United Kingdom* and in 2016 I was co-author of a Historic England / Crown Estate / British Marine Aggregate Producers Association funded review of marine historic environment best practice guidance for the UK offshore aggregate industry.

I returned to South African in mid-2014 where I was re-appointed to my earlier post at SAHRA: Manager of the Maritime and Underwater Cultural Heritage Unit. In July 2016 I was appointed as Acting Manager of SAHRA's Archaeology, Palaeontology and Meteorites Unit.

I left SAHRA in September 2017 to join ACO Associates as Senior Archaeologist and Consultant. Since being at ACO and in addition to a wide range of terrestrial archaeological assessments, I have carried a number of maritime heritage impact assessments, including:

- Proposed Aquaculture Areas 1, 6 And 7, Algoa Bay, Eastern Cape;
- Upgrade of the Ship Repair Facility, Port of Mossel Bay;
- Expansion of Diamond Coast Aquaculture Farm on Farm 654, Portion 1, Kleinzee, Northern Cape;
- Block ER236, Proposed Exploration Well Drilling;
- IOX Cable Route;
- ASN Africa METISS Subsea Fibre Optic Cable System;
- Equiano Cable System, landing at Melkbosstrand;
- Prospecting Right Applications: Sea Concession Areas 14b, 15b and 17b, West Coast;
- Prospecting Rights Applications: Sea Concession Areas 13C and 15C - 18C, West Coast;
- 2AFRICA/GERA (East) Submarine Fibre Optic Cable System, Landing at Duynefontein; and
- 2AFRICA/GERA (West) Submarine Fibre Optic Cable System, Landing at Yzerfontein.

In 2018 of the potential impacts of marine mining on South Africa's palaeontological and archaeological heritage for the Council for Geoscience, on behalf of the Department of Mineral Resources.

I have been a member of the Association of Southern African Professional Archaeologists (No. 043) for nearly thirty years and am accredited by ASAPA's Cultural Resource Management section.

I have been a member of the ICOMOS International Committee for Underwater Cultural Heritage since 2000 and served as a member of its Bureau between 2009 and 2018.

Since 2010 I have been a member of the UK's Joint Nautical Archaeology Policy Committee.

I am a member of the Advisory Board of the George Washington University / Iziko Museums of South Africa / South African Heritage Resources Agency / Smithsonian Institution 'Southern African Slave Wrecks Project'.

I have served on the Heritage Western Cape Archaeology, Palaeontology and Meteorites Committee since 2014.

Selected Project Reports:

Gribble, J. 2017. *Archaeological Assessment of Farm No 8/851, Drakenstein*. Unpublished report prepared for Balwin Properties Pty Ltd. ACO Associates.

Gribble, J. 2017. *Archaeological Assessment of Bosjes Phase 2, Farm 218 Witzenberg*. Unpublished report prepared for Farmprops 53 (Pty) Ltd. ACO Associates.

Gribble, J. 2017. *Canal Precinct, V&A Waterfront: Heritage Impact Assessment*. Unpublished report prepared for Nicolas Baumann Urban Conservation and Planning. ACO Associates.

Gribble, J. 2017. *Archaeological Assessment of the proposed dam on the farm Constantia Uitsig, Erven 13029 and 13030, Cape Town*. Unpublished report prepared for SLR Consulting (South Africa) (Pty) Ltd. ACO Associates.

Gribble, J. 2017. *Archaeological Assessment of Erf 4722 Blouvillei, Wellington*. Unpublished report prepared for Urban Dynamics Western Cape (Pty) Ltd. ACO Associates.

Hart, T.G., Gribble, J. & Robinson, J. 2017 *Heritage Impact Assessment for the Proposed Phezukomoya Wind Energy Facility to be Situated in the Northern Cape*. Unpublished report prepared for Arcus Consulting. ACO Associates.

Hart, T.G., Gribble, J. & Robinson, J. 2017 *Heritage Impact Assessment for the Proposed San Kraal Wind Energy Facility to be Situated in the Northern Cape*. Unpublished report prepared for Arcus Consulting. ACO Associates.

Gribble, J. 2018. *Integrated Heritage Impact Assessment of the Peter Falke Winery on Farm 1558 Groenvlei, Stellenbosch*. Unpublished report prepared for Werner Nel Environmental Consulting Services. ACO Associates.

Gribble, J. & Halkett, D. 2018. *Heritage Impact Assessment for a Proposed Extension of the Kaolin Mine on Portion 1 of the Farm Rondawel 638, Namaqualand District, Northern Cape*. Unpublished report prepared for Rondawel Kaolien (Pty) Ltd. ACO Associates.

Gribble, J. 2019. *Archaeological Impact Assessment for Proposed Sand Mining on Portion 2 of Farm Kleinfontein 312, Klawer District, Western Cape*. Unpublished report prepared for Green Direction Sustainability Consulting (Pty) Ltd. ACO Associates.

Halkett, D. & Gribble, J. 2018. *Archaeological/Heritage Report for the Expansion of the Current Granite Mining at Oeranoep and Ghaams, Northern Cape Province*. Unpublished report prepared for Klaas Van Zyl. ACO Associates.

Gribble, J. 2018. *Potential Impacts of Marine Mining on South Africa's Palaeontological and Archaeological Heritage*. Report prepared for Council for Geoscience. ACO Associates.

Gribble, J. 2018. *Maritime Heritage Impact Assessment: Block ER236, Proposed Exploration Well Drilling*. Unpublished report prepared for ERM Southern Africa (Pty) Ltd. ACO Associates.

- Gribble, J. 2018. *Maritime Heritage Impact Assessment: IOX Cable Route*. Unpublished report prepared for ERM Southern Africa. ACO Associates.
- Gribble, J. 2018. *Archaeological Assessment of the Terrestrial Portion of the IOX Cable Route*. Unpublished report prepared for ERM Southern Africa. ACO Associates.
- Gribble, J. 2018. *Archaeological Assessment: Erven 11122, 11123, 11124, 11125, 11126, 11127 and Re 11128, Corner Frere Street and Albert Road, Woodstock, Cape Town*. Unpublished report prepared for Johan Cornelius. ACO Associates.
- Gribble, J. 2018. *Maritime Heritage Impact Assessment: Expansion of Diamond Coast Aquaculture Farm on Farm 654, Portion 1, Kleinzee, Northern Cape*. Unpublished report prepared for ACRM. ACO Associates.
- Gribble, J. 2018. *Heritage Impact Assessment: Ship Repair Facility, Port of Mossel Bay*. Unpublished report prepared for Nema Consulting. ACO Associates.
- Gribble, J. 2018. *Archaeological Assessment: Sites B and C, Portswood Ridge Precinct, V&A Waterfront*. Unpublished report prepared for Urban Conservation. ACO Associates.
- Gribble, J. 2018. *Heritage Impact Assessment: Zandrug, Farm Re 9/122, Cederberg*. Unpublished report prepared for Cederberg Environmental Assessment Practice. ACO Associates.
- Gribble, J. and Hart, T.G. 2018. *Initial Assessment Report and Motivation for Exploratory Permit, Erf 4995, corner of Waterfall and Palace Hill Roads, Simonstown*. Unpublished report prepared for Regent Blue Sayers' Lane (Pty) Ltd. ACO Associates.
- Gribble, J. and Hart, T.G. 2018. *Initial investigation report with respect to human remains found at Erf 4995, corner of Waterfall and Palace Hill Roads, Simonstown*. Unpublished permit report prepared for Regent Blue Sayers' Lane (Pty) Ltd. ACO Associates.
- Gribble, J. 2019. *Maritime Heritage Impact Assessment: ASN Africa METISS Subsea Fibre Optic Cable System*. Unpublished report prepared for ERM Southern Africa. ACO Associates.
- Gribble, J. 2019. *Maritime Archaeological Impact Assessment of Proposed Aquaculture Areas 1, 6 And 7, Algoa Bay, Eastern Cape Province*. Unpublished report prepared for Anchor Research & Monitoring (Pty) Ltd. ACO Associates.
- Gribble, J. 2019. *Heritage Impact Assessment: Rooilandia Farm Dam, Pipeline and New Irrigation Areas*. Unpublished report prepared for Cornerstone Environmental Consultants. ACO Associates.
- Gribble, J. 2019. *Maritime Archaeological Impact Assessment of Proposed Equiano Cable System, landing at Melkbosstrand, Western Cape Province*. Unpublished report prepared for Acer (Africa) Environmental Consultants. ACO Associates.
- Gribble, J. 2019. *Heritage Baseline for Prospecting Right Applications: Sea Concession Areas 14b, 15b and 17b, West Coast, Western Cape Province*. Unpublished report prepared for SLR Consulting. ACO Associates.
- Gribble, J. & Euston-Brown, G.L. 2019. *Archaeological Amendment Report: San Kraal Wind Energy Facility, Noupoort, Northern Cape*. Unpublished report prepared for Arcus Consulting. ACO Associates.

- Gribble, J. & Euston-Brown, G.L. 2019. *Archaeological Amendment Report: Phezukomoya Wind Energy Facility, Noupoort, Northern Cape*. Unpublished report prepared for Arcus Consulting. ACO Associates.
- Gribble, J. & Euston-Brown, G.L. 2019. *Archaeological Amendment Report: Hartebeeshoek West Wind Energy Facility, Noupoort, Northern Cape*. Unpublished report prepared for Arcus Consulting. ACO Associates.
- Gribble, J. & Euston-Brown, G.L. 2019. *Archaeological Amendment Report: Hartebeeshoek East Wind Energy Facility, Noupoort, Northern Cape*. Unpublished report prepared for Arcus Consulting. ACO Associates.
- Gribble, J. & Euston-Brown, G.L. 2019. *Heritage Assessment: Infrastructure Associated with the San Kraal, Phezukomoya and Hartebeeshoek East and West Wind Energy Facilities, Noupoort, Northern Cape*. Unpublished report prepared for Arcus Consulting. ACO Associates.
- Gribble, J. & Euston-Brown, G.L. 2020. *Heritage Impact Assessment: Proposed Grid Connection for the De Aar 2 South Wind Energy Facility, De Aar, Northern Cape*. Unpublished report prepared for Arcus Consulting. ACO Associates.
- Gribble, J., Euston-Brown, G.L. & Hart, T. 2020. *Heritage Impact Assessment: Proposed Construction of Five Guest Cottages on the Farm Groenfontein (Farm 96), Outside Ceres, Western Cape*. Unpublished report prepared for Doug Jeffery Environmental Consultants. ACO Associates.
- Gribble, J. 2020. *Maritime Archaeological Impact Assessment for Prospecting Rights Applications: Sea Concession Areas 14b, 15b and 17b, West Coast, Western Cape Province*. Unpublished report prepared for SLR Consulting. ACO Associates.
- Gribble, J. 2020. *Maritime Archaeological Impact Assessment for Prospecting Rights Applications: Sea Concession Areas 13C and 15C - 18C, West Coast, Western Cape Province*. Unpublished report prepared for SLR Consulting. ACO Associates.
- Gribble, J. 2020. *Heritage Impact Assessment for Proposed Sand Mining on Portion 2 Of Farm Kleinfontein 312, Klaver District, Western Cape*. Unpublished report prepared for Green Direction Sustainability Consulting (Pty) Ltd. ACO Associates.
- Gribble, J. & Euston-Brown, G.L. 2020. *Heritage Impact Assessment: Leliefontein to Conmarine Bulk Water Pipeline, between Paarl and Wellington*. Unpublished report prepared for Aurecon South Africa (Pty) Ltd. ACO Associates.
- Gribble, J. & Euston-Brown, G.L. 2020. *Heritage Impact Assessment: Proposed Expansion of the Sand Mine on Portion 4 of The Farm Zandbergfontein, Robertson, Western Cape*. Unpublished report prepared for Greenmined Environmental. ACO Associates.
- Gribble, J. 2021. *Maritime Archaeological Impact Assessment of Proposed 2AFRICA/GERA (East) Submarine Fibre Optic Cable System, Landing at Duynefontein, Western Cape Province*. Unpublished report prepared for Acer (Africa) Environmental Consultants. ACO Associates.
- Gribble, J. 2021. *Maritime Archaeological Impact Assessment of Proposed 2AFRICA/GERA (West) Submarine Fibre Optic Cable System, Landing at Yzerfontein, Western Cape*

Province. Unpublished report prepared for Acer (Africa) Environmental Consultants. ACO Associates.

Publications:

Gribble, J. and Scott, G., 2017, *We Die Like Brothers: The sinking of the SS Mendi*, Historic England, Swindon.

Sharfman, J., Boshoff, J. and Gribble, J. 2017. Benefits, Burdens, and Opportunities in South Africa: The Implications of Ratifying the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage, in L. Harris (ed) *Sea Ports and Sea Power: African Maritime Cultural Landscapes*, Springer International Publishing, Switzerland, pp 101-110.

Lloyd Jones, D., Langman, R., Reach, I., Gribble, J., and Griffiths, N., 2016, Using Multibeam and Sidescan Sonar to Monitor Aggregate Dredging, in C.W. Finkl and C. Makowski (eds) *Seafloor Mapping along Continental Shelves: Research and Techniques for Visualizing Benthic Environments*, Coastal Research Library 13, Springer International Publishing, Switzerland, pp 245-259.

Athiros, G. and Gribble, J., 2015, *Wrecked at the Cape Part 2*, The Cape Odyssey 105, Historical Media, Cape Town.

Gribble, J. and Sharfman, J., 2015, The wreck of SS Mendi (1917) as an example of the potential trans-national significance of World War I underwater cultural heritage, *Proceedings of the UNESCO Scientific Conference on the Underwater Cultural Heritage from World War I*, Bruges, 26-28 June 2014.

Gribble, J., 2015, Underwater Cultural Heritage and International Law. Cambridge by Sarah Dromgoole, in *South African Archaeological Bulletin*, 70, 202, pp 226-227.

Athiros, G. and Gribble, J., 2014, *Wrecked at the Cape Part 1*, The Cape Odyssey 104, Historical Media, Cape Town.

Gribble, J., 2014, Learning the Hard Way: Two South African Examples of Issues Related to Port Construction and Archaeology, in *Dredging and Port Construction: Interactions with Features of Archaeological or Heritage Interest*, *PIANC Guidance Document 124*, pp 97-107.

UK UNESCO 2001 Convention Review Group, 2014, *The UNESCO Convention on the Protection of the Underwater Cultural Heritage 2001: An Impact Review for the United Kingdom*, ISBN 978-0-904608-03-8.

Sadr, K., Gribble, J. and Euston-Brown, G, 2013, Archaeological survey on the Vredenburg Peninsula, in Jerardino et al. (eds), *The Archaeology of the West Coast of South Africa*, BAR International Series 2526, pp 50-67.

Gribble, J. and Sharfman, J, 2013, Maritime Legal Management in South Africa, *Online Encyclopaedia of Global Archaeology*, pp 6802-6810.

- Gribble, J., 2011, The UNESCO Convention on the Protection of the Underwater Cultural Heritage 2001, *Journal of Maritime Archaeology* 6:1 77-86.
- Gribble, J., 2011, The SS Mendi, the Foreign Labour Corps and the trans-national significance of shipwrecks, in J. Henderson (ed.): *Beyond Boundaries, Proceedings of IKUWA 3, The 3rd International Congress on Underwater Archaeology*, Römisch-Germanische Kommission (RGK), Frankfurt.
- Gribble, J., 2011, Competence and Qualifications, in Guèrin, U., Egger, B. and Maarleveld, T. (eds) *UNESCO Manual for Activities directed at Underwater Cultural Heritage*, UNESCO - Secretariat of the 2001 Convention, Paris.
- Gribble, J. and Leather, S. for EMU Ltd., 2010, *Offshore Geotechnical Investigations and Historic Environment Analysis: Guidance for the Renewable Energy Sector*. Commissioned by COWRIE Ltd (Project reference GEOARCH-09).
- Sadr, K and Gribble, J., 2010, The stone artefacts from the Vredenburg Peninsula archaeological survey, west coast of South Africa, *Southern African Humanities* 22: 19–88.
- Gribble, J., 2009, HMS Birkenhead and the British warship wrecks in South African waters in *Proceedings of the Shared Heritage Seminar*, University of Wolverhampton, 8 July 2008.
- Gribble, J., Parham, D. and Scott-Ireton, D., 2009, Historic Wrecks: Risks or Resources? In *Conservation and Management of Archaeological Sites*, Vol. 11 No. 1, March, 2009, 16–28.
- Gribble, J. and Athiros, G., 2008, *Tales of Shipwrecks at the Cape of Storms*, Historical Media, Cape Town.
- Gribble, J., 2008, The shocking story of the ss Mendi, in *British Archaeology*, March/April 2008.
- Gribble, J., 2007, The Protection of the Underwater Cultural Heritage: National Perspectives in light of the UNESCO Convention 2001 by Sarah Dromgoole, in *The International Journal of Nautical Archaeology*, 36, 1, pp 195-6.
- Gribble, J., 2006, The Sad Case of the ss Maori, in Grenier, R., D. Nutley and I. Cochran (eds) *Underwater Cultural Heritage at Risk: Managing Natural and Human Impacts*, pp 41-43, ICOMOS, Paris.
- Gribble, J., 2006, Pre-Colonial Fish Traps on the South Western Cape Coast, South Africa, in Grenier, R., D. Nutley and I. Cochran (eds) *Underwater Cultural Heritage at Risk: Managing Natural and Human Impacts*, pp 29-31, ICOMOS, Paris.
- Forrest, C.S.J., and Gribble, J., 2006, The illicit movement of underwater cultural heritage: The case of the Dodington coins, in *Art and Cultural Heritage: Law, Policy and Practice*, (ed B.T. Hoffman), New York, Cambridge University Press.

- Forrest, C.S.J., and Gribble, J., 2006, Perspectives from the Southern Hemisphere: Australia and South Africa, in *The UNESCO Convention for the Protection of the Underwater Heritage: Proceedings of the Burlington House Seminar*, October 2005, JNAPC / NAS.
- Gribble, J., 2003, "Building with Mud" – Developing historical building skills in the Karoo, in ICOMOS South Africa, in *The Proceedings of Symposium on Understanding and using urban heritage in the Karoo*, Victoria West, South Africa, 3-5 March 2002.
- Forrest, C.S.J., and Gribble, J., 2002, The illicit movement of underwater cultural heritage: The case of the Dodington coins, *International Journal of Cultural Property*, Vol II (2002) No 2, pp 267-293.
- Gribble, J. 2002, The Past, Present and Future of Maritime Archaeology in South Africa, *International Handbook of Underwater Archaeology* (eds Ruppe and Barstad), New York, Plenum Press.
- Thackeray, F. and Gribble, J., 2001, Historical Note on an Attempt to Salvage Iron from a Shipwreck, *Looking Back*, Vol 40, November 2001, pp 5-7.
- Gribble, J., 1998, Keeping Our Heads Above Water – the development of shipwreck management strategies in South Africa, *AIMA Bulletin*, Vol 22, pp 119-124.
- Gribble, J. 1996, Conservation Practice for Historical Shipwrecks, Monuments and Sites of South Africa, Colombo, Sri Lanka, ICOMOS 11th General Assembly.
- Gribble, J. 1996, National Databases on Monuments and Sites, Monuments and Sites of South Africa, Colombo, Sri Lanka, ICOMOS 11th General Assembly.
- Sadr, K, Gribble, J, & Euston-Brown, G L, 1992 The Vredenburg Peninsula survey, 1991/1992 season, *Guide to Archaeological Sites in the South-western Cape, Papers compiled for the South African Association of Archaeologists Conference*, July 1992, by A.B. Smith & B. Mutti, pp 41-42.
- Smith, AB, Sadr, K, Gribble, J, & Yates, R., 1992 Witklip and Posberg Reserve, *Guide to Archaeological Sites in the South-western Cape, Papers compiled for the South African Association of Archaeologists Conference*, July 1992, by A.B. Smith & B. Mutti, pp 31-40.
- Smith, AB, Sadr, K, Gribble, J & Yates, R., 1991, Excavations in the south-western Cape, South Africa, and the archaeological identity of prehistoric hunter-gatherers within the last 2000 years, *The South African Archaeological Bulletin* 46: 71-91.



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DETAILS OF THE SPECIALIST, DECLARATION OF INTEREST AND UNDERTAKING UNDER OATH

	(For official use only)
File Reference Number:	
NEAS Reference Number:	DEA/EIA/
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

PROJECT TITLE

FINAL EMPR FOR THE SAN KRAAL AND PHEZUKOMOYA WIND ENERGY FACILITIES, EASTERN AND NORTHERN CAPE PROVINCES

Kindly note the following:

1. This form must always be used for applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting where this Department is the Competent Authority.
2. This form is current as of 01 September 2018. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the Competent Authority. The latest available Departmental templates are available at <https://www.environment.gov.za/documents/forms>.
3. A copy of this form containing original signatures must be appended to all Draft and Final Reports submitted to the department for consideration.
4. All documentation delivered to the physical address contained in this form must be delivered during the official Departmental Officer Hours which is visible on the Departmental gate.
5. All EIA related documents (includes application forms, reports or any EIA related submissions) that are faxed; emailed; delivered to Security or placed in the Departmental Tender Box will not be accepted, only hardcopy submissions are accepted.

Departmental Details

Postal address:

Department of Environmental Affairs
Attention: Chief Director: Integrated Environmental Authorisations
Private Bag X447
Pretoria
0001

Physical address:

Department of Environmental Affairs
Attention: Chief Director: Integrated Environmental Authorisations
Environment House
473 Steve Biko Road
Arcadia

Queries must be directed to the Directorate: Coordination, Strategic Planning and Support at:
Email: EIAAdmin@environment.gov.za

1. SPECIALIST INFORMATION

Specialist Company Name:	ACO Associates cc			
B-BBEE	Contribution level (indicate 1 to 8 or non-compliant)	4	Percentage Procurement recognition	100%
Specialist name:	John Gribble			
Specialist Qualifications:	MA Archaeology			
Professional affiliation/registration:	Association of South African Professional Archaeologists (Membership Number #043)			
Physical address:	c/o 8 Jacobs Ladder, St James			
Postal address:	As above			
Postal code:	7945	Cell:	078 616 2961	
Telephone:	-	Fax:	-	
E-mail:	john.gribble@aco-associates.com			

2. DECLARATION BY THE SPECIALIST

I, John Gribble, declare that –

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.



Signature of the Specialist

ACO Associates cc

Name of Company:

16 February 2022

Date

Details of Specialist, Declaration and Undertaking Under Oath

3. UNDERTAKING UNDER OATH/ AFFIRMATION

I, John Gribble, ~~swear under oath~~ / affirm that all the information submitted or to be submitted for the purposes of this application is true and correct.



Signature of the Specialist

ACO Associates

Name of Company

16 February 2022

Date

Rev. James Gribble
COMMISSIONER OF OATHS
MARRIAGE OFFICER (V3146) - REPUBLIC OF SOUTH AFRICA
"Windfall", 123 Woodgate Road, Plumstead 7800



Signature of the Commissioner of Oaths

16 February 2022

Date