UPGRADING OF ENYATHI MINING VILLAGE, ABAQULUSI LOCAL MUNICIPALITY KZN

FOR K2M Environmental

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EXECUTIVE SUMMARY

The Abaqulusi Municipality has identified the need to provide a housing development within its area of jurisdiction. This process was initiated as a means to address the municipality's housing need due to the growth of the population. The proposed project is an in-situ upgrade and infill development and is aimed at providing suitable housing to beneficiaries within the Abaqulusi Local Municipality.

The HIA survey noted that the colliery started in 1908 and some of the original buildings may still occur. Other buildings may be older than sixty years in age and are thus protected by heritage legislation. All buildings that will be affected by the proposed project will need to be assessed by a suitably qualified built environment specialist. I suggested a general once-off assessment of the entire village is undertaken to assist planning of the various upgrades.

No PIA is required since the development will occur in already disturbed land. Any excavations deeper then 2m might require PIA input.

Abbreviations

HP	Historical Period
IIA	Indeterminate Iron Age
LIA	Late Iron Age
EIA	Early Iron Age
ISA	Indeterminate Stone Age
ESA	Early Stone Age
MSA	Middle Stone Age
LSA	Late Stone Age
HIA	Heritage Impact Assessment
PIA	Palaeontological Impact Assessment

INTRODUCTION

The Abaqulusi Municipality has, through its IDP process, and extensive consultation with respective communities residing within the local municipality, identified the need to provide a housing development within its area of jurisdiction. This process was initiated as a means to address the municipality's housing need due to the growth of the population.

The proposed development area is located within the Enyathi Mining Village, Ward 5 of the Abaqulusi Local Municipality. The total extent of the proposed site is approximately 263.9 hectares with a development footprint of approximately 19.5 ha. The proposed project is an in-situ upgrade and infill development and is aimed at providing suitable housing to beneficiaries within the Abaqulusi Local Municipality.

The proposed development will entail:

• *in situ* upgrade and infill development on vacant pockets of land within the project area.

• construction of internal pipelines for the transportation of water and wastewater

• construction of internal roads and storm water infrastructure

• Formalisation of the existing cemetery

• It should be noted that erven will be set aside for commercial facilities and active and passive open space.

Umlando was requested to undertake an assessment of the proposed development. Figures 1 – 4 show the location of the development.

FIG. 1 GENERAL LOCATION OF THE PROPOSED DEVELOPMENT

FIG. 2: AERIAL OVERVIEW OF THE PROPOSED DEVELOPMENT

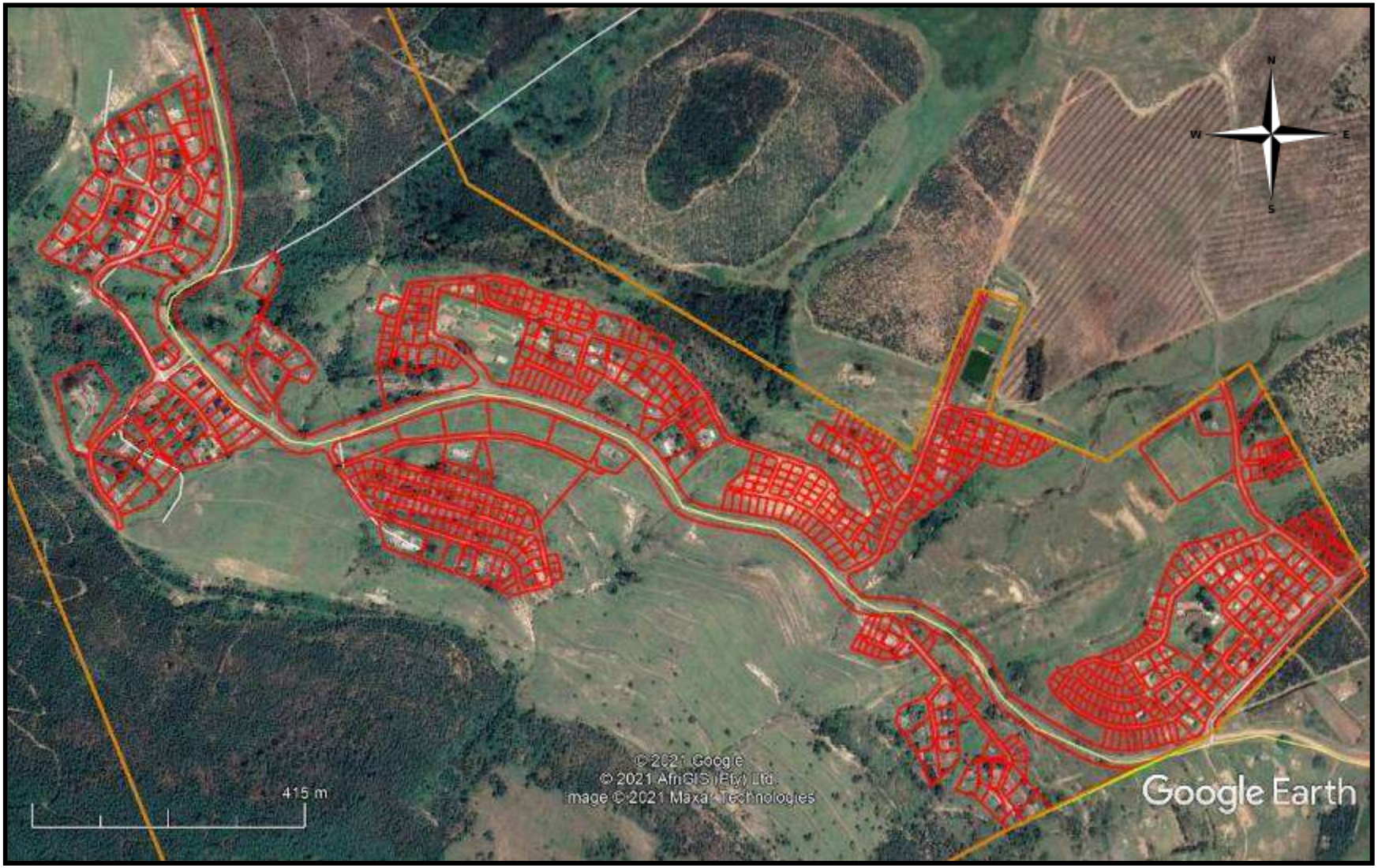


FIG. 3: TOPOGRAPHICAL MAP OF THE PROPOSED DEVELOPMENT (2002)

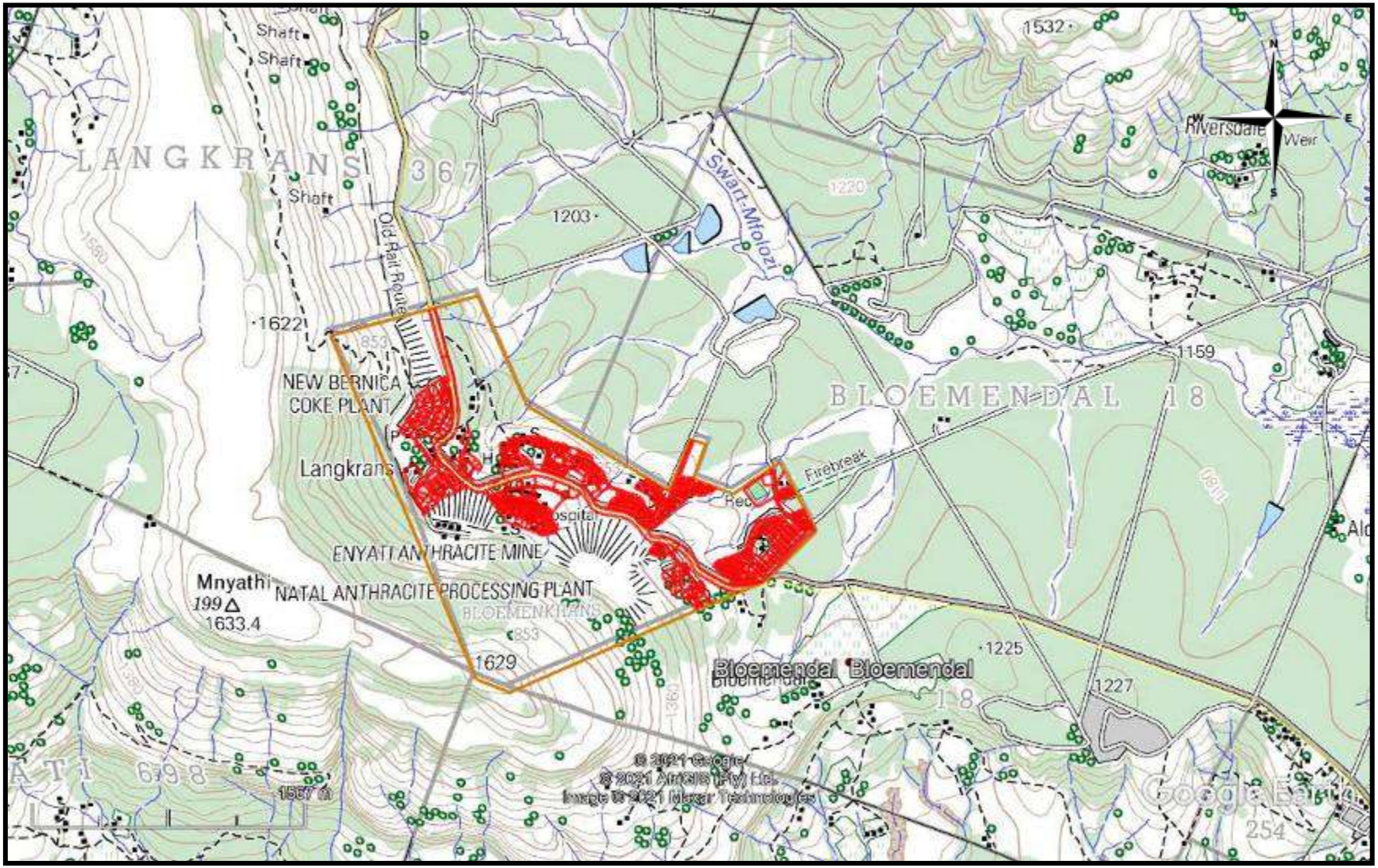


FIG. 4: SCENIC VIEW OF THE STUDY AREA

KWAZULU NATAL AMAFA AND RESEARCH INSTITUTE, ACT 05, 2018

"General protection: Structures.—

- No structure which is, or which may reasonably be expected to be older than 60 years, may be demolished, altered or added to without the prior written approval of the Council having been obtained on written application to the Council.
- Where the Council does not grant approval, the Council must consider special protection in terms of sections 38, 39, 40, 41 and 43 of Chapter 9.
- The Council may, by notice in the *Gazette*, exempt—
- A defined geographical area; or
- defined categories of sites within a defined geographical area, from the provisions of subsection where the Council is satisfied that heritage resources falling in the defined geographical area or category have been identified and are adequately protected in terms of sections 38, 39, 40, 41 and 43 of Chapter 9.
- A notice referred to in subsection (2) may, by notice in the *Gazette*, be amended or withdrawn by the Council.

General protection: Graves of victims of conflict.—No person may damage, alter, exhume, or remove from its original position—

- the grave of a victim of conflict;
- a cemetery made up of such graves; or
- any part of a cemetery containing such graves, without the prior written approval of the Council having been obtained on written application to the Council.
- General protection: Traditional burial places.—
- No grave—
- not otherwise protected by this Act; and
- not located in a formal cemetery managed or administered by a local authority, may be damaged, altered, exhumed, removed from its original position, or otherwise disturbed without the prior written approval of the Council having been obtained on written application to the Council.

The Council may only issue written approval once the Council is satisfied that—

- the applicant has made a concerted effort to consult with communities and individuals who by tradition may have an interest in the grave; and
- the applicant and the relevant communities or individuals have reached agreement regarding the grave.

General protection: Battlefield sites, archaeological sites, rock art sites, palaeontological sites, historic fortifications, meteorite or meteorite impact sites.—

- No person may destroy, damage, excavate, alter, write or draw upon, or otherwise disturb any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site without the prior written approval of the Council having been obtained on written application to the Council.
- Upon discovery of archaeological or palaeontological material or a meteorite by any person, all activity or operations in the general vicinity of such material or meteorite must cease forthwith and a person who made the discovery must submit a written report to the Council without delay.
- The Council may, after consultation with an owner or controlling authority, by way of written notice served on the owner or controlling authority, prohibit any activity considered by the Council to be inappropriate within 50 metres of a rock art site.
- No person may exhume, remove from its original position or otherwise disturb, damage, destroy, own or collect any object or material associated with any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site without the prior written approval of the Council having been obtained on written application to the Council.
- No person may bring any equipment which assists in the detection of metals and archaeological and palaeontological objects and material, or excavation equipment onto any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, or meteorite impact site, or

use similar detection or excavation equipment for the recovery of meteorites, without the prior written approval of the Council having been obtained on written application to the Council.

- The ownership of any object or material associated with any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site, on discovery, vest in the Provincial Government and the Council is regarded as the custodian on behalf of the Provincial Government."

METHOD

The method for Heritage assessment consists of several steps.

The first step forms part of the desktop assessment. Here we would consult the database that has been collated by Umlando. This databases contains archaeological site locations and basic information from several provinces (information from Umlando surveys and some colleagues), most of the national and provincial monuments and battlefields in Southern Africa (http://www.vuvuzela.com/googleearth/monuments.html) and cemeteries in southern Africa (information supplied by the Genealogical Society of Southern Africa). We use 1st and 2nd edition 1:50 000 topographical and 1937 aerial photographs where available, to assist in general location and dating of buildings and/or graves. The database is in Google Earth format and thus used as a quick reference when undertaking desktop studies. Where required we would consult with a local data recording centre, however these tend to be fragmented between different institutions and areas and thus difficult to access at times. We also consult with an historical architect, palaeontologist, and an historian where necessary.

The survey results will define the significance of each recorded site, as well as a management plan.

All sites are grouped according to low, medium, and high significance for the purpose of this report. Sites of low significance have no diagnostic artefacts or features. Sites of medium significance have diagnostic artefacts or features and these sites tend to be sampled. Sampling includes the collection of artefacts for future analysis. All diagnostic pottery, such as rims, lips, and decorated sherds are sampled, while bone, stone, and shell are mostly noted. Sampling usually occurs on most sites. Sites of high significance are excavated and/or extensively sampled. Those sites that are extensively sampled have high research potential, yet poor preservation of features.

Defining significance

Heritage sites vary according to significance and several different criteria relate to each type of site. However, there are several criteria that allow for a general significance rating of archaeological sites.

These criteria are:

1. State of preservation of:
    1.1. Organic remains:
        1.1.1. Faunal
        1.1.2. Botanical
    1.2. Rock art
    1.3. Walling
    1.4. Presence of a cultural deposit
    1.5. Features:
        1.5.1. Ash Features
        1.5.2. Graves
        1.5.3. Middens
        1.5.4. Cattle byres
        1.5.5. Bedding and ash complexes
2. Spatial arrangements:
    2.1. Internal housing arrangements

2.2. Intra-site settlement patterns
2.3. Inter-site settlement patterns

3. Features of the site:
   3.1. Are there any unusual, unique or rare artefacts or images at the site?
   3.2. Is it a type site?
   3.3. Does the site have a very good example of a specific time period, feature, or artefact?
4. Research:
   4.1. Providing information on current research projects
   4.2. Salvaging information for potential future research projects
5. Inter- and intra-site variability
   5.1. Can this particular site yield information regarding intra-site variability, i.e. spatial relationships between various features and artefacts?
   5.2. Can this particular site yield information about a community's social relationships within itself, or between other communities?
6. Archaeological Experience:
   6.1. The personal experience and expertise of the CRM practitioner should not be ignored. Experience can indicate sites that have potentially significant aspects, but need to be tested prior to any conclusions.
7. Educational:
   7.1. Does the site have the potential to be used as an educational instrument?
   7.2. Does the site have the potential to become a tourist attraction?
   7.3. The educational value of a site can only be fully determined after initial test-pit excavations and/or full excavations.
8. Other Heritage Significance:
   8.1. Palaeontological sites
   8.2. Historical buildings
   8.3. Battlefields and general Anglo-Zulu and Anglo-Boer sites
   8.4. Graves and/or community cemeteries
   8.5. Living Heritage Sites
   8.6. Cultural Landscapes, that includes old trees, hills, mountains, rivers, etc related to cultural or historical experiences.

The more a site can fulfill the above criteria, the more significant it becomes. Test-pit excavations are used to test the full potential of an archaeological deposit. This occurs in Phase 2. These test-pit excavations may require further excavations if the site is of significance (Phase 3). Sites may also be mapped and/or have artefacts sampled as a form of mitigation. Sampling normally occurs when the artefacts may be good examples of their type, but are not in a primary archaeological context. Mapping records the spatial relationship between features and artefacts. Table 1 lists the grading system.

TABLE 1: SAHRA GRADINGS FOR HERITAGE SITES

SITE SIGNIFICANCE	FIELD RATING	GRADE	RECOMMENDED MITIGATION
High Significance	National Significance	Grade 1	Site conservation / Site development
High Significance	Provincial Significance	Grade 2	Site conservation / Site development
High Significance	Local Significance	Grade 3A / 3B	
High / Medium Significance	Generally Protected A		Site conservation or mitigation prior to development / destruction
Medium Significance	Generally Protected B		Site conservation or mitigation / test excavation / systematic sampling / monitoring prior to or during development / destruction
Low Significance	Generally Protected C		On-site sampling monitoring or no archaeological mitigation required prior to or during development / destruction

RESULTS

DESKTOP STUDY

The desktop study consisted of analysing various maps for evidence of prior habitation in the study area, as well as for previous archaeological surveys. Many archaeological sites occur in the general area. The archaeological sites tend to be Stone Age and Historical Period sites of various significance (fig. 5). No known heritage sites occur within the study area.

The Surveyor General maps indicate that Langkrans was surveyed in 1892 and 1906, and Bloemendal in 1892 (fig's 6 – 7). Of interest is that two existing coalmines are shown on the 1906 map (fig. 6). The Enyati Colliery Ltd operated from 1918 to 1979 (van Zyl 1993). The implication of this is that there could be buildings dating to these mines in the study area.

Fig. 8 indicates that the Buffalo Colliery existed by 1979 on the Farm Bloemendal

The 1972 topographical map indicates that there are no settlements in the general area (fig. 5).

FIG. 5: LOCATION OF KNOWN HERITAGE SITES IN THE GENERAL AREA

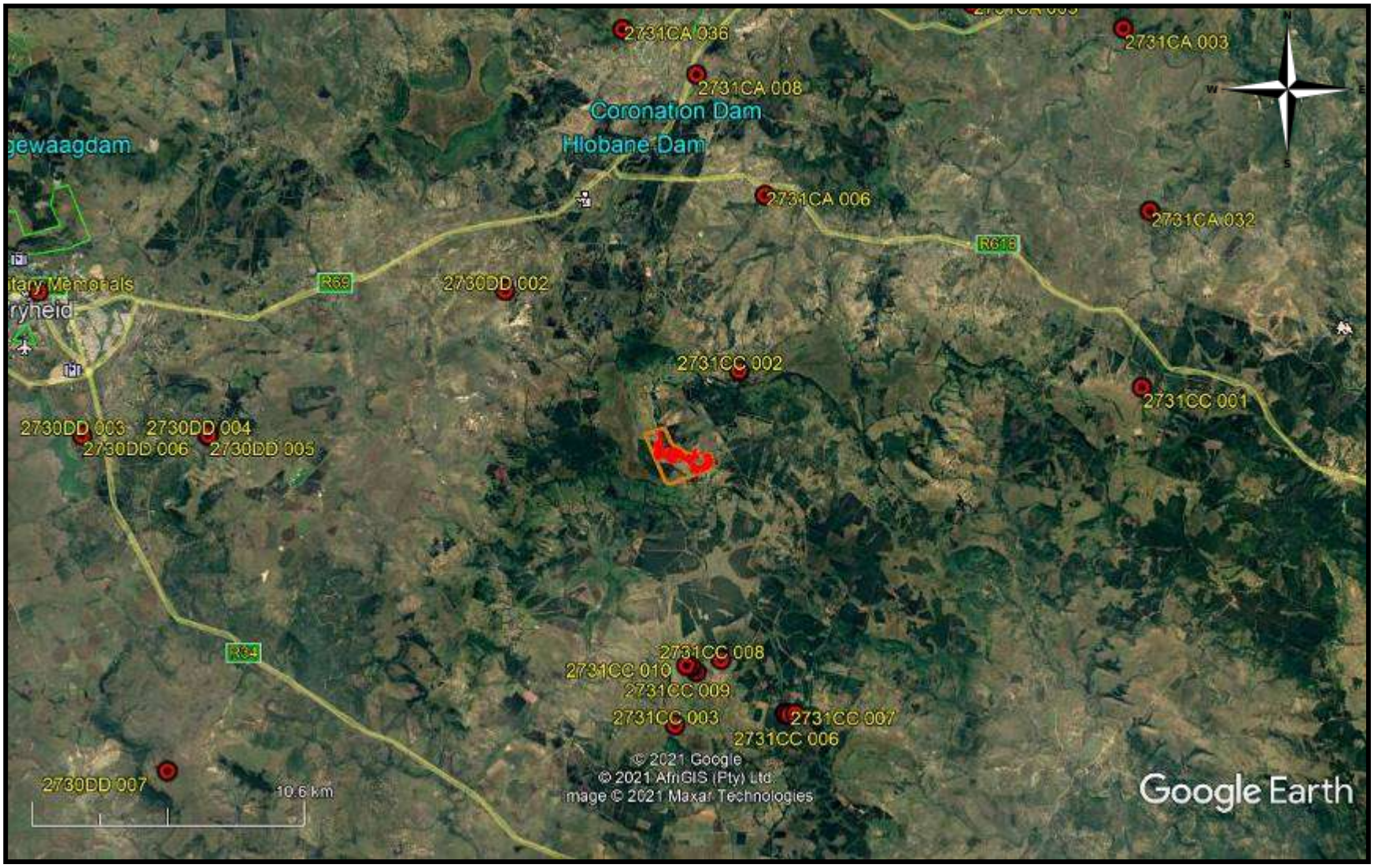


FIG. 6: LANGKRANS 367 IN 1906

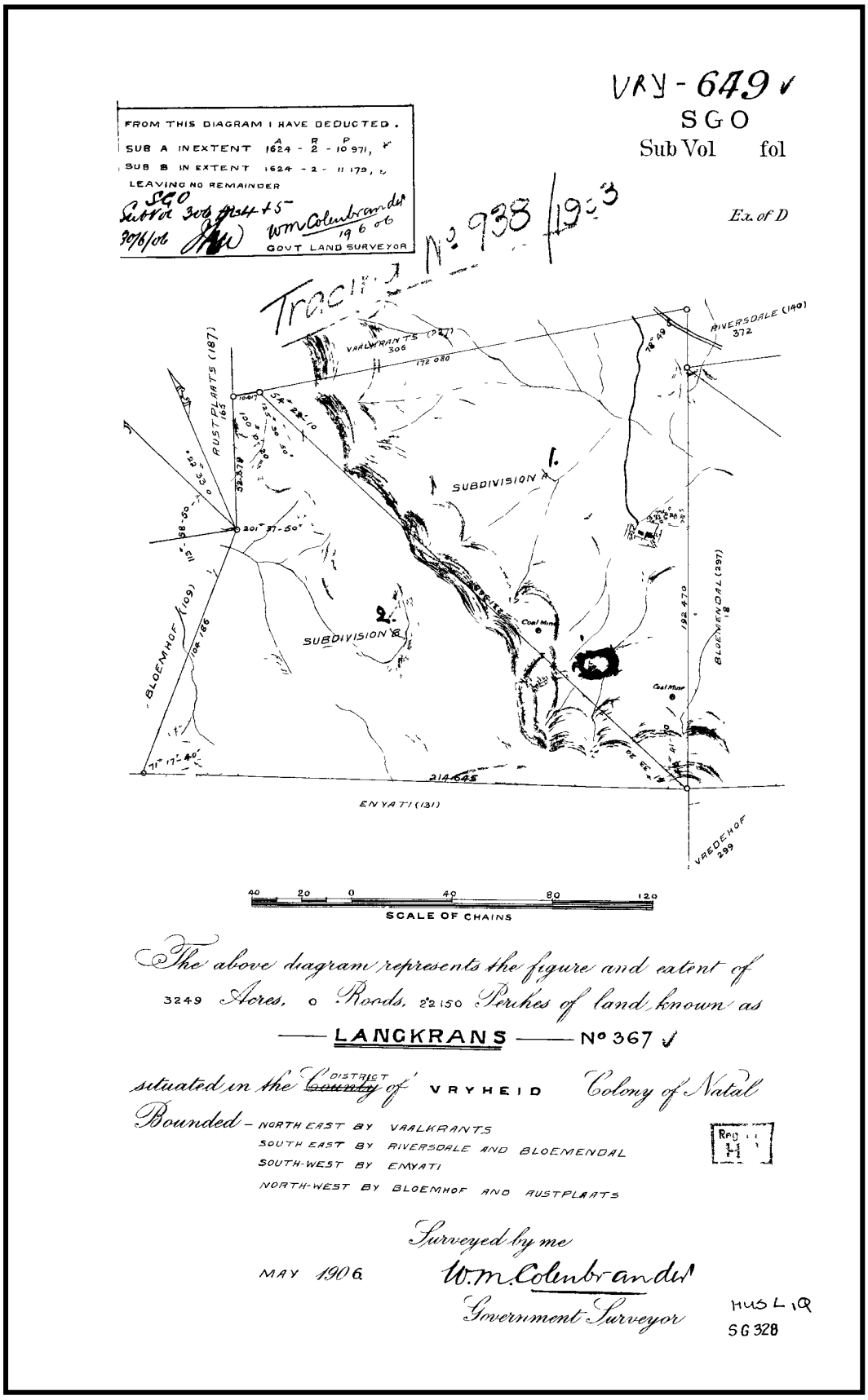


FIG. 7: BLOEMENDAL 18 IN 1892

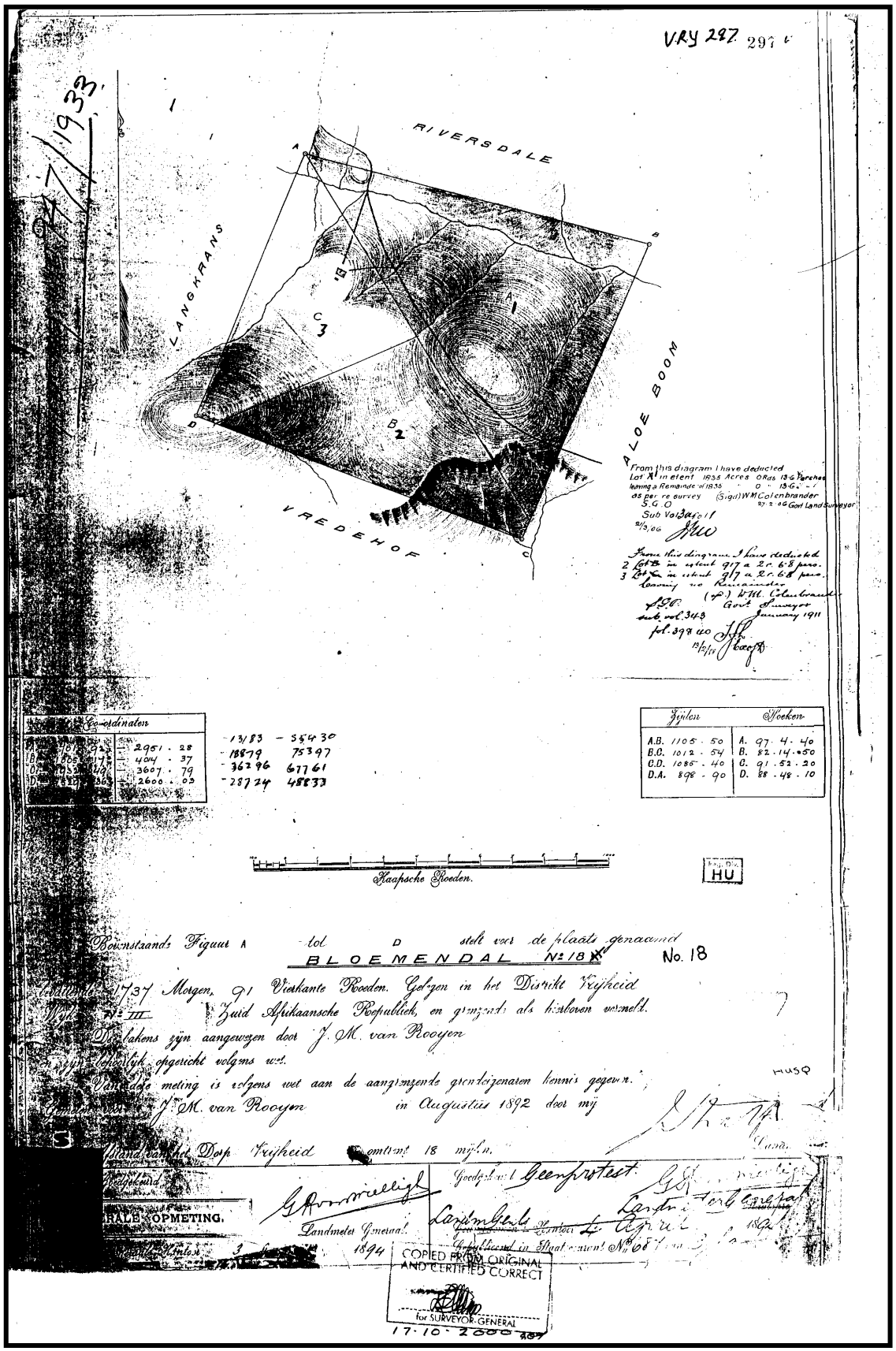


FIG. 8: BLOEMENDAL 18 IN 1979

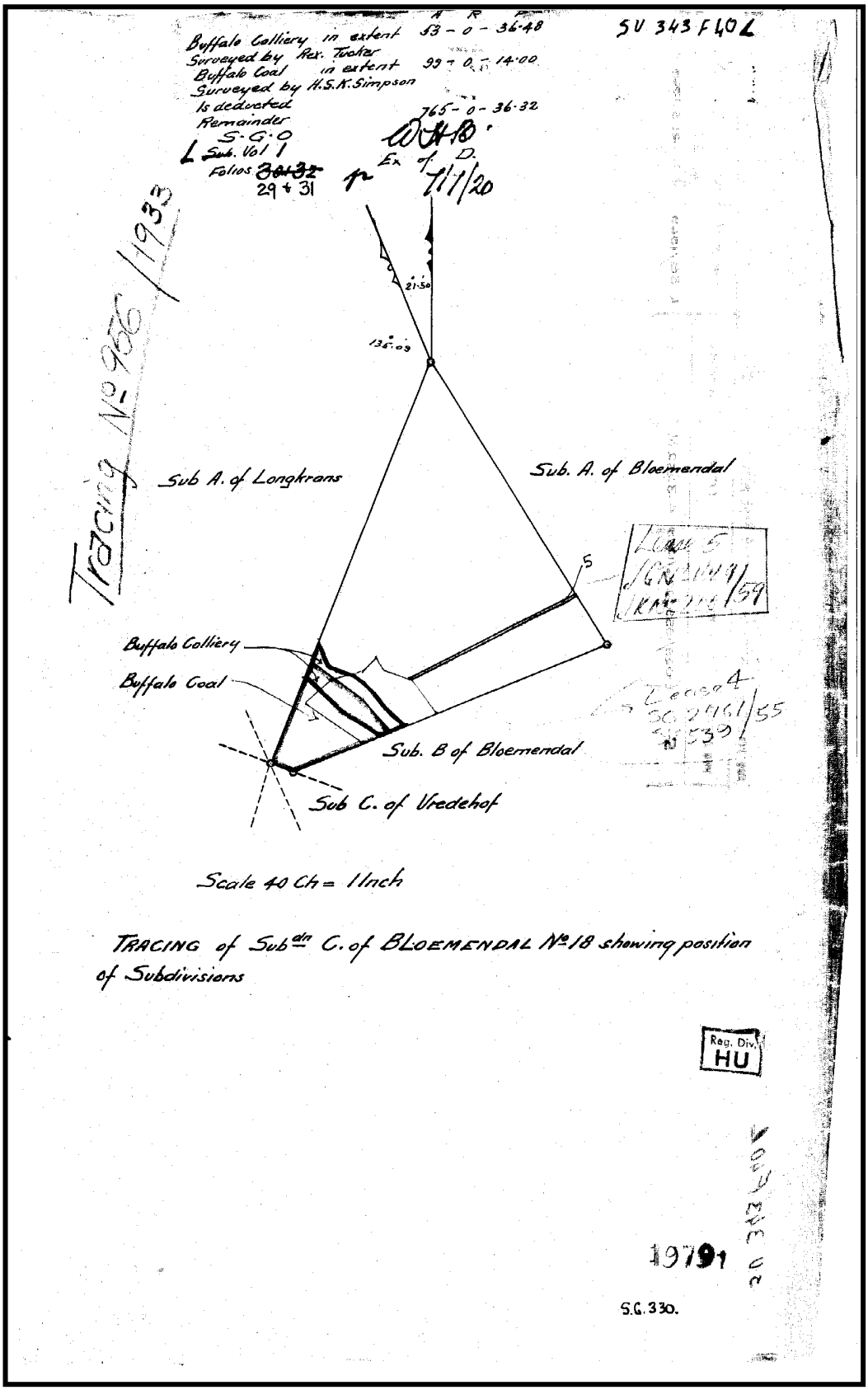
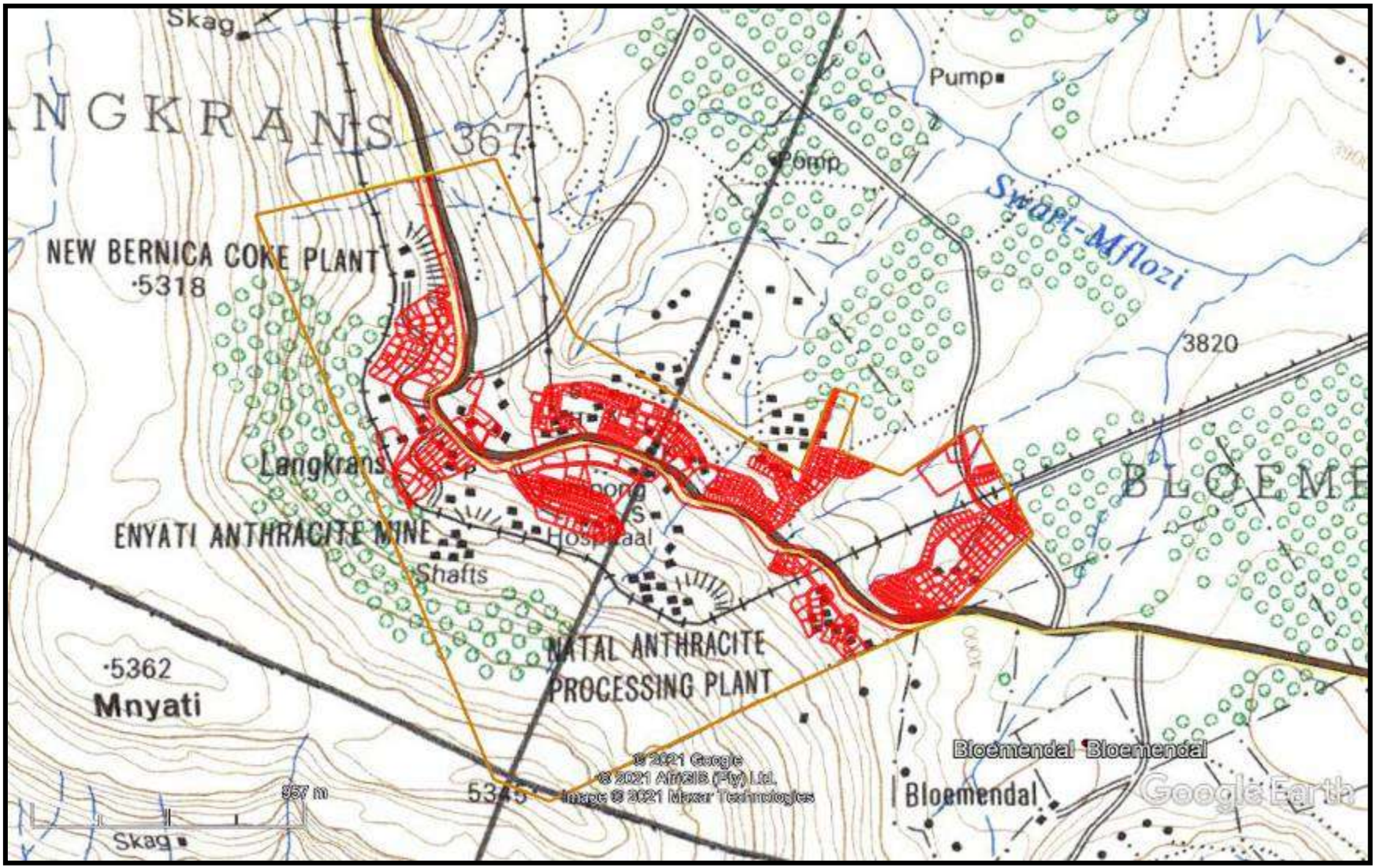


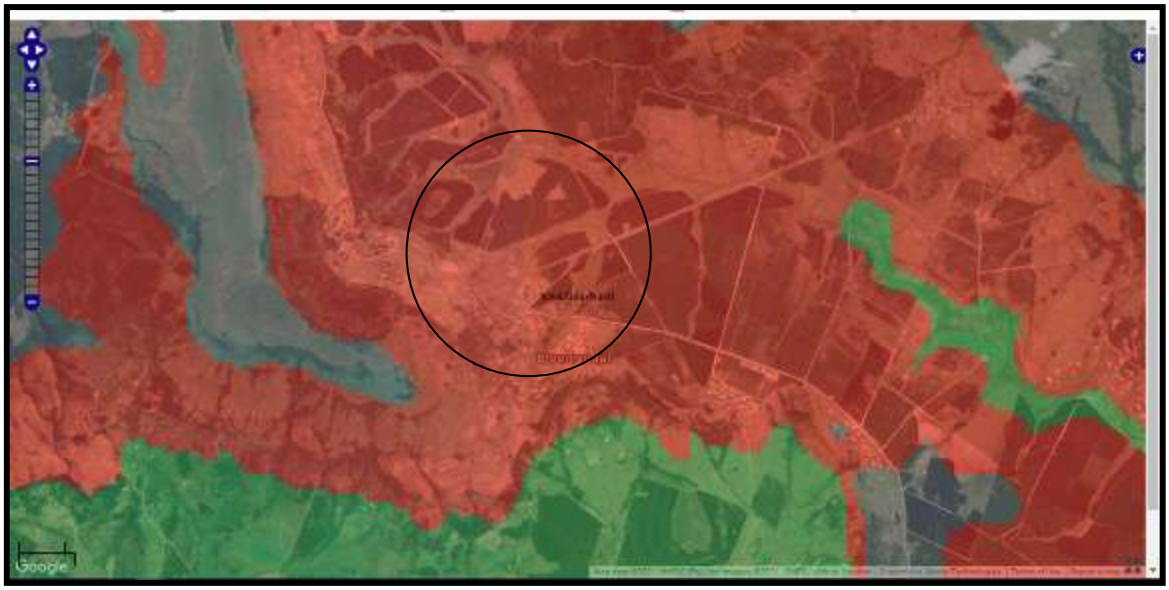
FIG. 9: STUDY AREA IN 1968



PALAEONTOLOGICAL SENSITIVITY

The area is in an area of very high palaeontological sensitivity (fig. 10). However, the upgrade will occur in areas that have already been disturbed by other building activities. Any excavations beyond 2m in depth will require a PIA.

FIG. 10: PALAEONTOLOGICAL SENSITIVITY MAP



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COLOUR	SENSITIVITY	REQUIRED ACTION
RED	VERY HIGH	field assessment and protocol for finds is required
ORANGE/YELLOW	HIGH	desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN	MODERATE	desktop study is required
BLUE	LOW	no palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	no palaeontological studies are required
WHITE/CLEAR	UNKNOWN	these areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

FIELD SURVEY

The field survey was undertaken on 6 March 2021 Ground visibility was very good in areas that did not have houses. The area was surveyed and various abandoned and/or unoccupied buildings were noted. The location of these buildings is shown in fig. 11 and Table 2. Figures 12 m – 13 show some of these buildings

TABLE 2: LOCATION OF MAIN BUILT FEATURES

Name	Latitude	Longitude
Main Building/House/Offices	-27.827553203	31.055794467
General Buildings	-27.829395206	31.057080109
Church	-27.824484920	31.051746159
Buildings	-27.823128299	31.049836921
Church Ruin	-27.823121139	31.048827292
General Dealer	-27.823561779	31.047387279
Hospital	-27.825489405	31.047573210
Bridge	-27.827564000	31.057158000
General Housing	-27.821196083	31.042317674
General Housing	-27.824115029	31.042744879
Cemetery	-27.823872506	31.050745043

Several of the buildings and other built features may be older than 60 years in age and are thus protected by the heritage legislation. According to the development, only the hospital will be demolished. The hospital will require further assessment by a suitably qualified Built Environment specialist. I suggest that a general assessment of the study area in terms of the Built Environment is undertaken. This will then allow for a once-off comment on which buildings are sensitive and require further mitigation.

Any other buildings or built features, such as terracing, walling, bridges, etc., will require a permit from KZNARI Built Environment section.

No other heritage features were noted in the study area.

FIG. 11 LOCATION OF CERTAIN BUILDINGS IN THE STUDY AREA

FIG. 12: HISTORICAL BUILDINGS IN THE STUDY AREA




FIG. 13: HISTORICAL BUILDINGS IN THE STUDY AREA

RECOMMENDATIONS

The proposed housing project will affect some existing built features. These may be older than 60 years in age, and would thus require a permit for the further demolition. Some buildings might date back to 1908 when the colliery started. The permit will require an assessment of the buildings to be demolished. I suggest a general assessment of all of the buildings relating to the old colliery is undertaken. In this way, other significant built features can be flagged if they have significance. I do not recommend a blanket destruction permit unless the entire colliery is assessed.

CONCLUSION

The proposed project is an in-situ upgrade and infill development and is aimed at providing suitable housing to beneficiaries within the Abaqulusi Local Municipality at the Enyathi Mining Village.

The HIA survey noted that the colliery started in 1908 and some of the original buildings may still occur. Other buildings may be older than sixty years in age and are thus protected by heritage legislation. All buildings that will be affected by the proposed project will need to be assessed by a suitably qualified built environment specialist. I suggested a general once-off assessment of the entire village is undertaken to assist planning of the various upgrades.

REFERENCES

Van Zyl, HC. 1993. Towards achieving "Receiving Water Quality Objectives" (RWQO) in the Enyati valley. Colloquium: Preparation of EMPs for Mines: Facing the Realities

EXPERIENCE OF THE HERITAGE CONSULTANT

Gavin Anderson has a M. Phil (in archaeology and social psychology) degree from the University of Cape Town. Gavin has been working as a professional archaeologist and heritage impact assessor since 1995. He joined the Association of Professional Archaeologists of Southern Africa in 1998 when it was formed. Gavin is rated as a Principle Investigator with expertise status in Rock Art, Stone Age and Iron Age studies. In addition to this, he was worked on both West and East Coast shell middens, Anglo-Boer War sites, and Historical Period sites.

DECLARATION OF INDEPENDENCE

I, Gavin Anderson, declare that I am an independent specialist consultant and have no financial, personal or other interest in the proposed development, nor the developers or any of their subsidiaries, apart from fair remuneration for work performed in the delivery of heritage assessment services. There are no circumstances that compromise the objectivity of my performing such work.

Gavin Anderson
Archaeologist/Heritage Impact Assessor