

**HERITAGE SURVEY OF THE MUN-YA-
WANA CONSERVANCY, KWA-ZULU NATAL**

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TABLE OF CONTENTS

HERITAGE SURVEY OF THE MUN-YA-WANA CONSERVANCY, KWA-ZULU NATAL...	1
INTRODUCTION	7
KWAZULU-NATAL HERITAGE ACT NO. 4 OF 2008	14
METHOD	16
Defining significance.....	17
TERMINOLOGY	20
RESULTS	21
DESKTOP STUDY	21
FIELD SURVEY.....	50
PND01	51
PND02	53
PND03	53
PND04	54
PND05	54
PND06	54
PND07	55
PND08	55
PND09	56
PND010	56
PND011	56
PND012	59
PND013	59
PND014	59
PND015	60
PND016	61
PND017	62
PND018	64
PND019	65
PND020	66
PND021	66
PND022	69
PND023	70
PND024	71
PND025	73
PND026, 027 and 028	73
PND029	76
PND030	77
PND031	77
PND032	79
PND033	80
PND034	82
PND035 (Fossil Dam).....	83
PND036 (Fossil Dam 2)	86
PND037 (Izwelihle).....	88
PND038 (House)	91
PND039	93
PND040 (Monte Rosa)	94
PND041	96
PND042	97
PND043	98
PND044	101
PND045	104
PND046	106
PND047	108
PND048	111

PND049	112
PND050	114
PND051	130
PND052	132
PND053	133
PND054	136
PND055	138
PND056	139
PND057	141
PND058	142
PND059	143
PND060	144
PND061	146
PND062	151
PND063	152
PND064 (Borgomaro)	153
PND065	156
PND066	158
PND067	158
PND068	160
PND069	161
PND070	162
PND071 (HARROGATE)	163
PND072	168
PND073	171
PND074	173
PND075	174
PND076	175
PND077	177
PND078	179
PND079	180
PND080 (SUTTON)	181
PND081	183
PND082	184
PND083	187
PND084	189
PND085	193
WP661	194
PND086	195
PND087	198
PND088	200
PND089	201
PND090	203
PND091	205
PND092	206
PND093	208
PND094	211
PND095	212
MANAGEMENT PLAN AND WAY FORWARD	222
CONCLUSION	226
REFERENCES	228

TABLE OF FIGURES

FIG. 1 GENERAL LOCATION OF MUN-YA-WANA CONSERVANCY	9
FIG. 2A: NORTHERN AERIAL OVERVIEW OF MUN-YA-WANA CONSERVANCY	10

FIG. 2B: SOUTHERN AERIAL OVERVIEW OF MUN-YA-WANA CONSERVANCY	11
FIG. 3A: TOPOGRAPHICAL MAP OF THE NORTHERN SECTION OF MUN-YA-WANA CONSERVANCY	12
FIG. 3B: TOPOGRAPHICAL MAP OF THE NORTHERN SECTION OF MUN-YA-WANA CONSERVANCY	13
TABLE 1: TERMINOLOGY AND DATES USED IN THE SURVEY.	20
FIG. 4: LOCATION OF PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES	22
FIG. 5: BIALA (1926)	23
FIG.6: BUBE (1923)	24
FIG.7: BUMBENI STORE (1924)	25
FIG.8: BUMBENI (1923).....	26
FIG.9: DHLAMINI (1923)	27
FIG.10: GOLWENI (1923)	28
FIG.11 HARROGATE: (1921.3)	29
FIG.12: INDABANA (1923).....	30
FIG.13: INGAGULA (1923).....	31
FIG.14: IZWELIHLE (1923)	32
FIG.15: KATEMA SETTLEMENT (1959)	33
FIG.16: MONTE ROSA (1923).....	34
FIG.17: MTANTE (1923)	35
FIG.18:MUNTWANA (1923).....	36
FIG.19:NKONKA (1923).....	37
FIG.20: NTABANKOSI (1923).....	38
FIG.21: SHOTTON (1923).....	39
FIG.22: SKIPTON (1923)	40
FIG.23:SUTTON (1921)	41
FIG.25:TEBELWANE (1921 and 1923).....	42
FIG.26: UMGOTSHA (1923)	43
FIG.27: UMZIGI (1923).....	44
FIG.28: ZUKA (1923).....	45
FIG. 29: LOCATION OF POSSIBLE SITES FROM 1937 AERIAL IMAGERY	47
FIG. 30: HARROGATE FARM IN 1937	48
FIG. 31: LOCATION OF SITES IN 1942 AND 2002.	49
FIG. 32: PND01	52
FIG. 33: PND011	58
FIG. 34: FOSSILS AT PND014	60
FIG. 35: LAVA FLOW FRAGMENTS AT PND016	61
FIG. 36: ARTEFACTS FROM PND017	63
FIG. 37: ARTEFACTS FORM PND018.....	64
FIG. 38: POTTERY AT BASE OF ACACIA TREE	65
FIG. 39: VIEWS OF PND021	67
FIG. 40: ARTEFACTS AND ECOFACTS FROM PND021	68
FIG. 41: STONE TOOLS FORM AN OPEN AREA AT PND022	69
FIG 42: PND023: GENERAL VIEW AND ARTEFACTS	70
FIG. 43: EXPOSED ARTEFACTS AT PND024	72
FIG.44: VIEW OF PND028.....	74
FIG. 45: LOWER GRINDING STONE & RECTANGUALR FEATURE AT PND028.....	75
FIG. 46: GULLY AT PND029.....	76
FIG. 47: BORDER FENCE ALONG PND031.....	78
FIG. 48: POTTERY AT PND031 (LEFT) AND ZAMIMPILO (RIGHT).....	78
FIG. 49: ARTEFACTS AT PND032	80
FIG. 50: PND033 'CAVE'.....	81
FIG. 51: POTTERY AT PND033	82
FIG. 52: CAVE AT PND034.....	84
FIG. 53 EMBANKMENT AT PND035.....	85
FIG. 54: STONE TOOLS AT PND035.....	85
FIG. 55 FOSSILS AT PND036 (FOSSIL DAM).....	87

FIG. 56: HOUSE FOUNDATIONS WITH PILLAR AT PND037	89
FIG. 57: TRACTOR REMAINS AT PND037 (TOP) AND ORIGINAL VERSION (BELOW)	89
FIG. 58: METAL POT AND CERAMIC PLATE AT ND037	90
FIGURE 59: AREAS AND ARTEFACTS AT PND038	92
FIG. 60: WATER TROUGH AT PND039.....	93
FIG. 61: A TERRACE AND GLASS BOTTLE FROM PND41 (MONTE ROSA)	95
FIG. 62: GRAVE AT PND041	96
FIG. 63: GRAVE AT PND042.....	97
FIG. 64: POTTERY AT PND043	98
FIG. 65: STONE CAIRNS AT PND043	99
FIG. 66: STONE WALLING AT PND043.....	100
FIG. 67: GENERAL LOCATTION OF PND044	101
FIG. 68: .CREVICE AT PND044	102
FIG. 69: ARTEFACTS AT PND044	103
FIG. 70: LOCATION OF PND045.....	104
FIG. 71: LOCATION OF PND045.....	105
FIG. 72: ARTEFACTS AT PND045	105
FIG. 73: ROCK OUTCROP AT PND 46.....	106
FIG. 74: STONE KNAPPING AT PND 46	107
FIG. 75: POSSIBEL PALAENTOLGICAL DEPSOITS AT PND 46.....	107
FIG. 76: GRAVES AT PND047	109
FIG. 77: ARTEFACTS AT PND047	110
FIG. 78: STONE WALLING AT PND048.....	111
FIG. 79: POSSIBLE GRAVE AT PND048.....	112
FIG.80: <i>E. INGENS</i> AND A BROKEN POT AT PND049	113
FIG. 81: STONE WALL AT PND050	114
FIG. 82: STORAGE TANK AT PND050	115
FIG. 83: OROS BOTTLE AT PND050.....	117
FIG.84: SUNSWEET BOTTLE AT PND050.....	118
FIG. 85: STUMPY BEER BOTTLE AT PND050	119
FIG. 86: FOOD FOR THIRST BOTTLE AT PND050	120
FIG. 87: C&S BOTTLE AT PND050.....	121
FIG. 88: NO. 3 HAND GRINDER AT PND050	122
FIG. 89: BENTALL & COMPANY GRINDERS.....	123
FIG. 90: FORD FLATHEAD ENGINE.....	124
TABLE 2: FORD VEHICLES USING THE FORD FLATHEAD ENGINE	125
FIG. 91: DODGE PICK UP TRUCK AT PND050	128
FIG. 92: ANIMAL DIP TIN AT PND050	129
FIG. 93: MEMORIAL STONE AT PND051.....	131
FIG. 94: FOUNDATIONS AT PND052	132
FIG. 95: INTERNATIONAL HARVESTER VEHICLES AT PND053	134
FIG. 96: INTERNATIONAL HARVESTER ADVERTISEMENT	135
FIG. 97: VEHICLE AT PND053.....	136
FIG. 98: REMAINS OF MALALA HOUSE AT PND054.....	137
FIG. 99: LOCATION OF PND055.....	138
FIG. 100: ARTEFACTS FROM PND056.....	140
FIG. 101: LOCATION OF GRAVE AT PND057	141
FIG. 102: GRAVE AT PND058.....	142
FIG. 103: FOUNDATIONS AND BRICK AT PND059	143
FIG. 104: LEVELED AREA FOR WATER TANK FEATURE.	144
FIG. 105: <i>EUPHORBIA INGENS</i> AT PND060	145
FIG. 106: CRETACEOUS BEACH AT PND061	147
FIG. 107: STONE CAIRN AT PND061.....	148
FIG. 108: VOLCANIC DEPOSITS AT PND061.....	149
FIG. 109: VOLCANIC LAVA AT PND061.....	150
FIG. 110: EAST AFRICAN MAHOGANY AT PND062	151
FIG. 111: MPHAFI TREE AT PND063.....	152

FIG. 112: FOUNDATIONS AT PND064	154
FIG. 113: ARTEFACTS FROM PND064.....	155
FIG. 114: WATER DRILL RIG AT PND065.....	157
FIG. 115: MUTHI TREE AND GENERAL AREA OF PND067	159
FIG. 116: STONE TOOLS AT PND068.....	160
FIG. 117: STONE CAIRN AT PND069.....	161
FIG. 118: CACTUS AT PND070.....	162
FIG. 119: CERAMIC PLATE AND MEDICINAL BOTTLE FROM PND071	164
FIG. 120: WATER TROUGH AND HOUSE FLOOR AT PND071.....	165
FIG. 121: MASSEY-HARRIS PUMP AT PND071	166
FIG. 122: CORONATION BRICK, CORRUGATED IRON IMPRESSION, & SLAG AT PND071	167
FIG. 123: BOTTLE BASE AT PND072.....	169
FIG. 124: IKHAMBABA FRAGMENT AT PND072.....	169
FIG. 125: POSSIBLE PIT AT PND072	170
FIG. 126: AT PND073	172
FIG. 127: AT PND074	173
FIG. 128: AT PND075	174
FIG. 129: ARTEFACTS AT PND076.....	176
FIG. 130: ADZE AT PND077.....	177
FIG. 131: STONE FEATURE AND LOWER GRINDING STONE AT PND077.....	178
FIG. 132: JUVENILE GRAVE AT PND078	179
FIG. 133: <i>E.INGENS</i> AT PND 079	180
FIG. 134: SUTTON FARM HOUSE.....	181
FIG. 135: ERYTHRINA SPP. AT SUTTON FARM HOUSE	182
FIG. 136: UNMARKED GRAVE AT PND081	183
FIG. 137: SUNCRUSH LTD GINGER BEER BOTTLE AT PND082.....	185
FIG. 138: STONE WALLING AT PND082.....	186
FIG. 139: FURNITURE POLISH BOTTLE AT PND083	187
FIG. 140: BUILDINGS AT LA MA RO	188
FIG. 141: PEUGOT 404 AT INGAGALU AND ORIGINAL	190
FIG. 142: STONE WALLED FEATURE, ASH MIDDEN AND <i>MUTHI</i> TREE AT PND084.....	191
FIG. 143: BUILDINGS AT INGAGALU (PND084).....	192
FIG. 144: BASE OF WATER TOWER AT PND085	193
FIG. 145: WATER TROUGH AT WP661	194
FIG. 146: LOCATION OF PND096.....	195
FIG. 147: ARTEFACTS AT PND086	197
FIG. 148: LOCATION OF PND087	198
FIG. 149: STONE CAIRNS AT PND087	199
FIG. 150: TERRACE AT PND088	200
FIG. 151: VIEW OF PND089.....	201
FIG. 152: STONE CAIRNS AT PND089	202
FIG. 153: CAIRNS BORED STONE, BRONZE BUCKLE FROM pnd090	204
FIG. 154: POSSIBLE GRAVES AT PND091	205
FIG. 155: GENERAL VIEW OF PND092	206
FIG. 156: CAIRNS AND GRINDONG STONES AT PND092	207
FIG. 157: VIEW OF THE ORIGINAL ROAD	208
FIG. 158; STONE TOOLS FROM PND093.....	209
FIG. 159: STONE CAIRNS & LOWER GRINDING STONE AT PND093.....	210
FIG. 160: STONE CAIRNS, POTTERY AND GRINDING STONES AT PND093.....	211
FIG. 161: HISTORICAL FOUNDATIONS AT PND005.....	212
FIG. 162: STONE CAIRNS AT PND005	213
ISOLATED FINDS	214
FIG. 163: SMOOTHED SHALE ARM BAND.....	214
FIG. 164: SORGHUM LOWER GRINDING STONE	215
FIG. 165: STONE TOOLS FROM PND01.....	216
TABLE 3: ISOLATED FINDS.....	217

INTRODUCTION

Umlando undertook a heritage survey of the Mun-ya-wana Conservancy in northeastern KwaZulu-Natal, (fig.'s 1 - 3). The aim of the survey is to record all heritage sites in the reserve, to assess each of the sites significance and provide a basic management plan. To assist in the survey we use volunteers who want to learn more about archaeology in southern Africa, and want to view animals in the reserve en route to the survey areas. The program was initiated in 2009 with a base line assessment of the reserve. Fourteen sites were recorded by visiting areas with obvious archaeological sites, and information from the Phinda staff. In 2010, Umlando started a revamped archaeological program, with a site visit in 2011. The first systematic survey was undertaken in May 2012.

The aim of this report is to consolidate the information of the survey, and produce a working document for Phinda. The document will have all the site information in a spreadsheet format so that it will be compatible with most GIS programs.

Sites are rated according to levels of significance: low, medium and high. All sites rated medium to high would need some form of mitigation if the area was to be developed, or have some form of earthmoving activity.

Mun-ya-wana Conservancy is made up of several Erwen that have been bought by @Beyond or entered in a partnership with the existing landowners. The properties from the original demarcations are as follows:

1. Borgomaro
2. Bube 16148
3. Bumbeni 13525
4. Coeeyane
5. Dhlamini 13811
6. Fagolweni 16156

7. Golweni 13309
8. Harrogate 15511
9. Impangele 13058
10. Indabana 13162
11. Ingagalu 13057
12. Izwelihle 13163
13. Katema settlement 14250
14. Lawane
15. Mduna Landgoed 15140
16. Melelo
17. Monte Rosa 13272
18. Mtante 13813
19. Munywana 13161
20. Nkonka 13285
21. Ntabankosi 14594
22. Phindaland 16282
23. Shotton 13810
24. Skipton 13812
25. Sungulwane 16020
26. Sutton 15510
27. Tebelwane 13547
28. Umgotsha 13308
29. Umzigi 13809
30. Versveld 16019
31. Zuka 135165

FIG. 1 GENERAL LOCATION OF MUN-YA-WANA CONSERVANCY

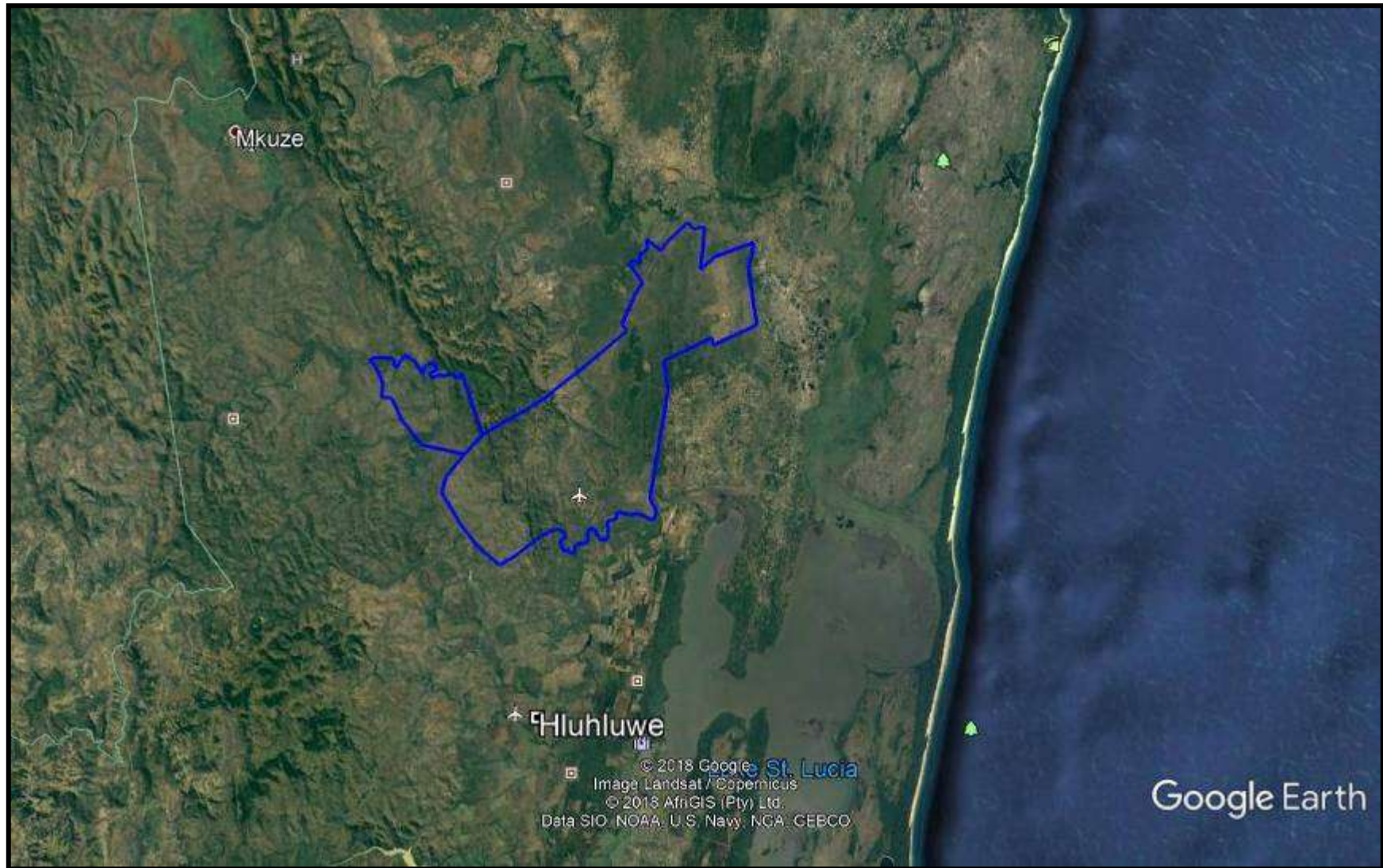


FIG. 2A: NORTHERN AERIAL OVERVIEW OF MUN-YA-WANA CONSERVANCY



FIG. 2B: SOUTHERN AERIAL OVERVIEW OF MUN-YA-WANA CONSERVANCY

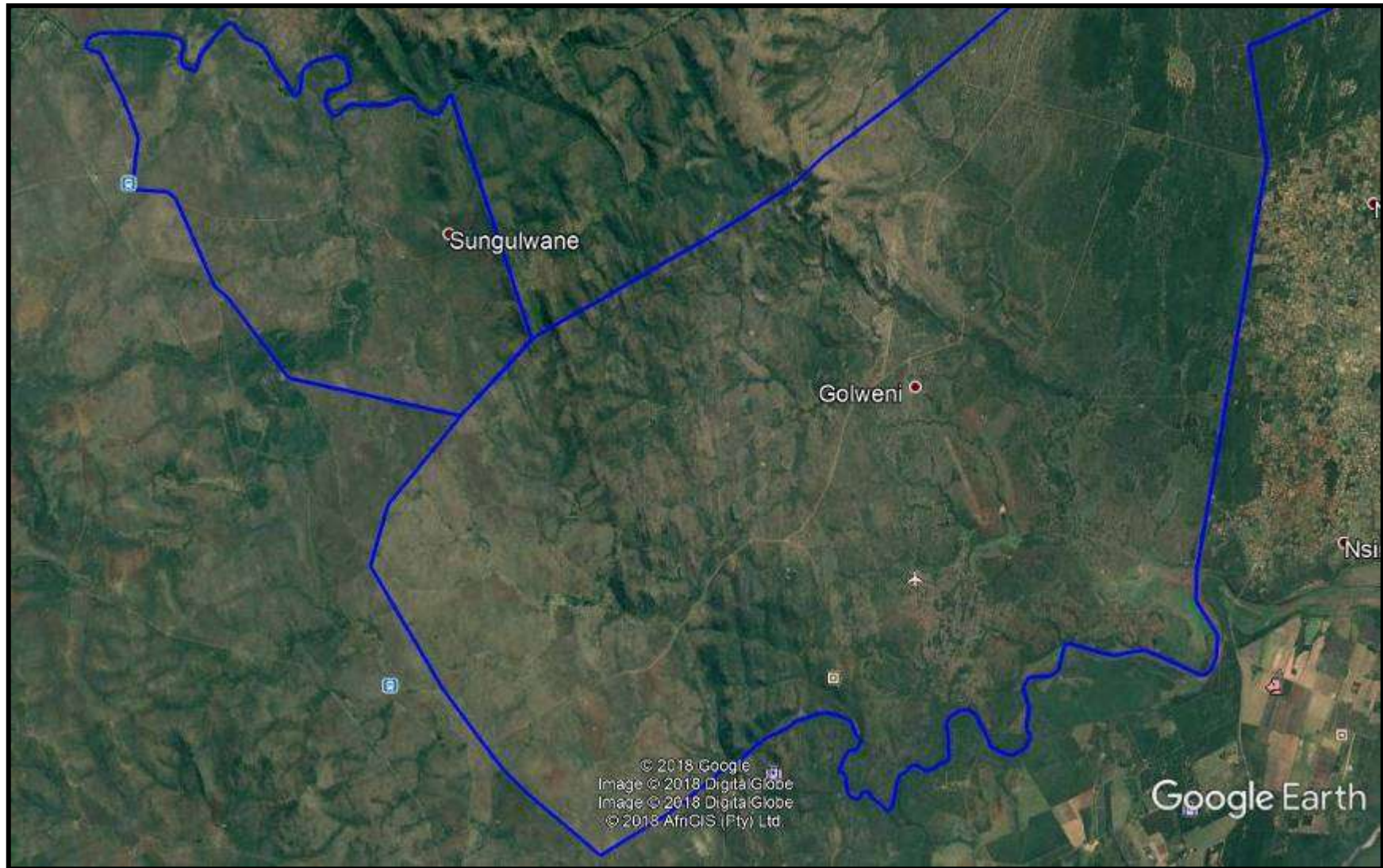


FIG. 3A: TOPOGRAPHICAL MAP OF THE NORTHERN SECTION OF MUN-YA-WANA CONSERVANCY

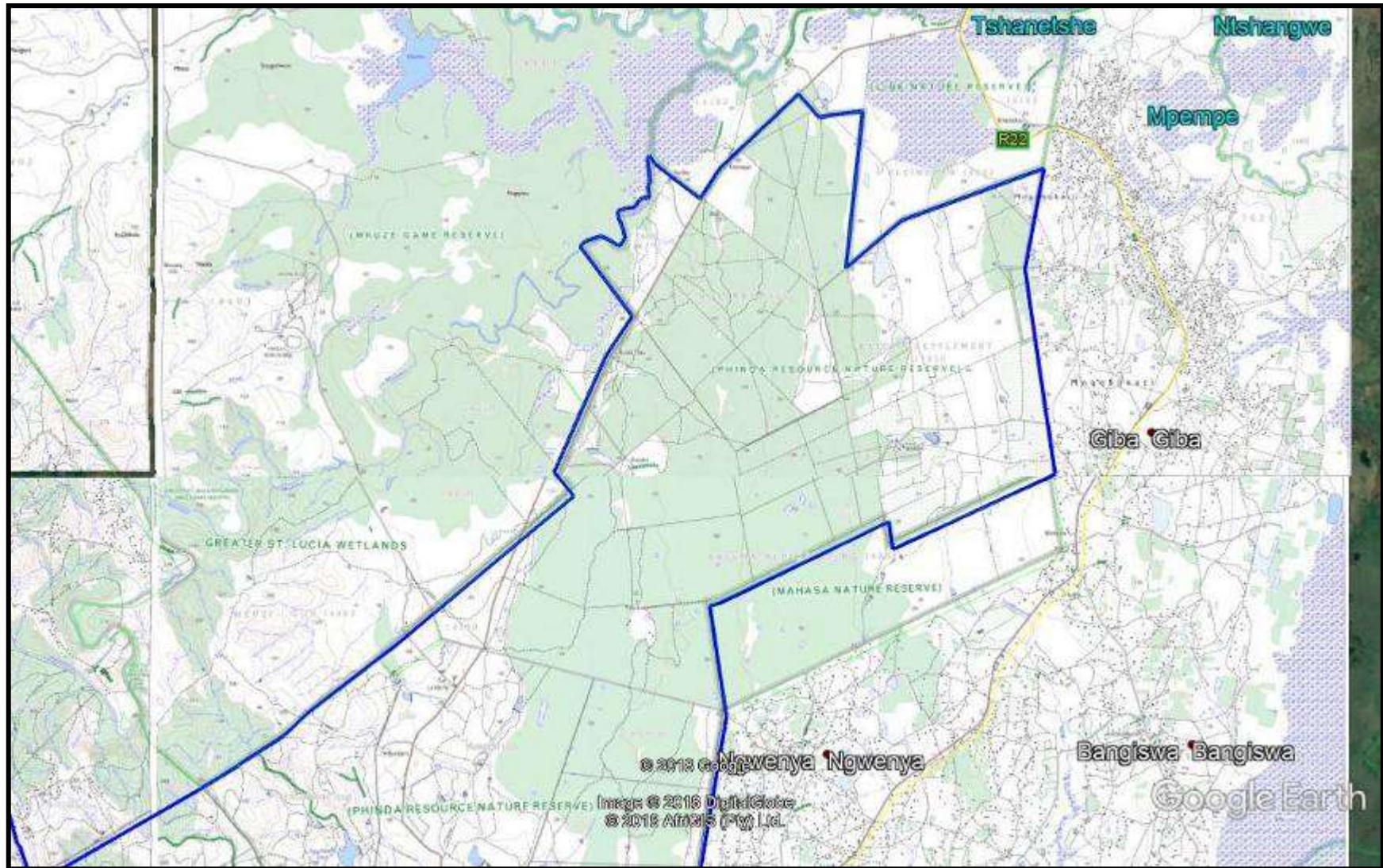
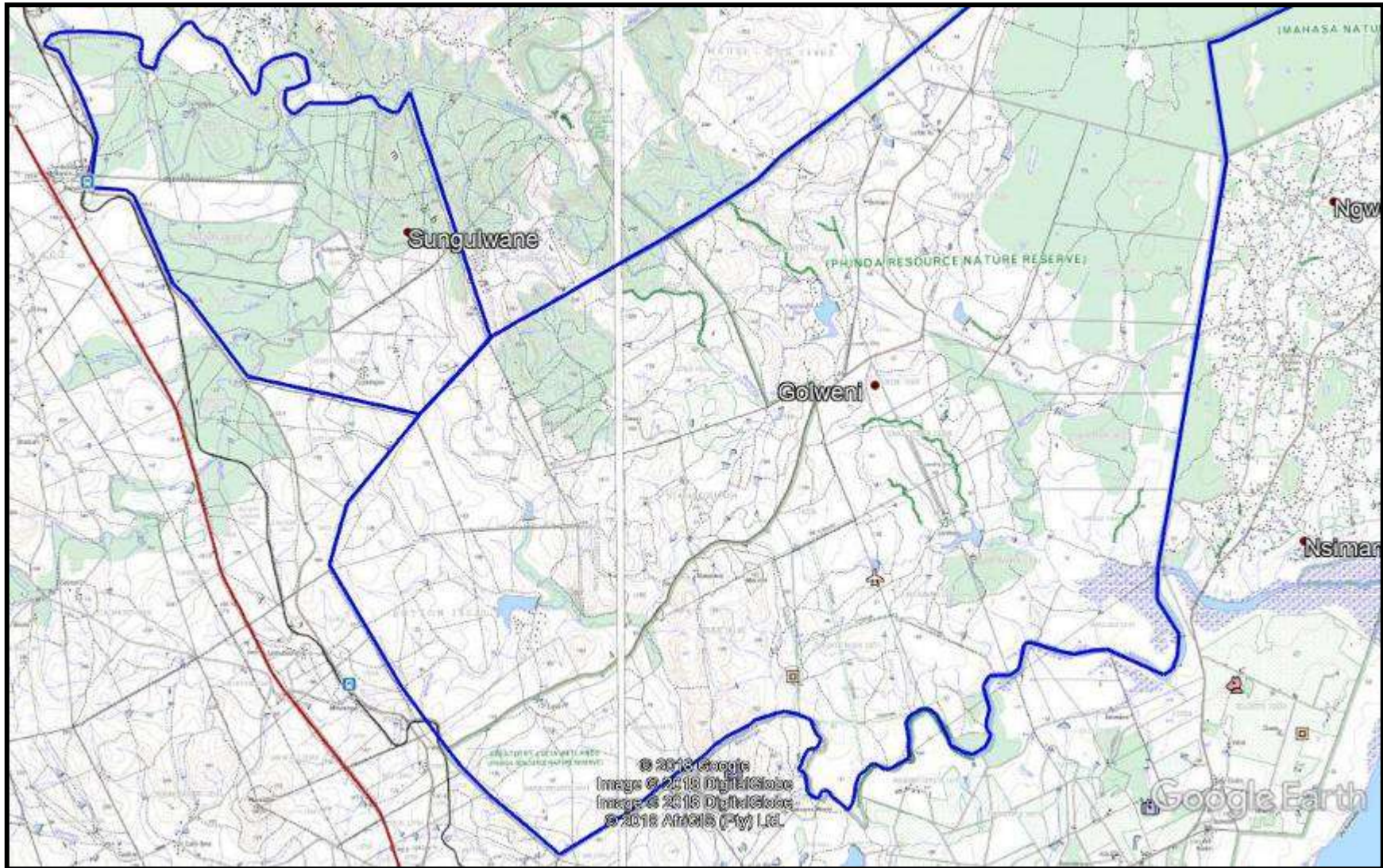


FIG. 3B: TOPOGRAPHICAL MAP OF THE NORTHERN SECTION OF MUN-YA-WANA CONSERVANCY



KWAZULU-NATAL HERITAGE ACT NO. 4 OF 2008

1. “General protection: Structures.—
 - a. 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.
 - b. 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.
2. The Council may, by notice in the *Gazette*, exempt—
 - a. a defined geographical area; or
 - b. 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.
 - c. A notice referred to in subsection (2) may, by notice in the *Gazette*, be amended or withdrawn by the Council.
3. General protection: Graves of victims of conflict.—No person may damage, alter, exhume, or remove from its original position—
 - a. the grave of a victim of conflict;
 - b. a cemetery made up of such graves; or
 - c. 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.
4. General protection: Traditional burial places.—
 - a. No grave—
 - b. not otherwise protected by this Act; and
 - c. 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.

5. The Council may only issue written approval once the Council is satisfied that—
 - a. the applicant has made a concerted effort to consult with communities and individuals who by tradition may have an interest in the grave; and
 - b. the applicant and the relevant communities or individuals have reached agreement regarding the grave.
 - c. 36. General protection: Battlefield sites, archaeological sites, rock art sites, palaeontological sites, historic fortifications, meteorite or meteorite impact sites.—
6. 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.
7. 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.
8. 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.
9. 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.

10. 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.
11. 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.” (KZN Heritage Act of 2008)

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 settlements with 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 use of historical maps allows us to note the locations of potential heritage sites in areas where the vegetation is too dense, or where there is no physical evidence of a settlement. That is, some areas have a high rate of deterioration of archaeological/organic remains, and human graves are generally ephemerally marked or demarcated with organic remains. By using the maps, we can indicate sensitive areas and suggest appropriate management plans.

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. Sampling/ excavation only occur on sites that are going to be developed.

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.

TERMINOLOGY

The various ages mentioned in the report are summarised in Table 1. These are estimated ages and vary in places and according to the researcher(s).

TABLE 1: TERMINOLOGY AND DATES USED IN THE SURVEY.

Period	Abbreviation	Sub-group	DATE (Years Ago)	
			From	To
Cretaceous			145.5 MYA	65.5 MYA
Early Stone Age	ESA		1 500 000	120 000
Middle Stone Age	MSA	Several sub groups	120 000	30 000
Late Stone Age	LSA	Several sub groups	30 000	100
Early Iron Age	EIA	Mzonjani	1 600	1 400
		Msuluzi	1 400	1 220
		Ndondondwane	1 220	1 050
		Ntshekane	1 050	970
Late Iron Age	LIA ¹	Formative Nguni	950	
		'Tsonga' / Northern Nguni		
		Zulu / Northern Nguni		1820
Historical Period	HP	Zulu	AD 1820	AD 2007

¹ The Late Iron Age varies according to the location in KwaZulu-Natal. The sub-groups referred to in this table are estimates of the sequence of occupation in the Maputaland area based on our work north of Richards Bay. We have omitted dates for the Late Iron Age, as we do not know the sequence for this area.

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. Previous reports for Phinda are in Appendix A. The archaeological database indicates that eleven sites had been previously recorded in this area (fig. 4). These were mostly recorded in the 1940s, 1960s and 1970s, but were not part of a systematic survey. All of the sites contain Middle Stone Age material, while some have Early Stone Age or Late Stone Age artefacts as well.

The Surveyor General maps of the farms indicate that they were first surveyed in 1921 (Harrogate) and then the rest in 1923 and 1929. This means that the first white farmers started farming in this area from about 1922-1924. Some of the early farm names such as Borgomaro and Coeeyane were used only for a short while and then changed, or were not formerly registered and were renamed later. They do occur on the Surveyor's maps and the farm names are on the 1943 1:50 000 topographical maps. Figures 5 – 28 show the original farm Erwen in alphabetical order. Some Erwen were not available on the Surveyor General web page.

I included Erf Bumbeni Store, as the store itself was central to the early days of the area. The store now falls into Mkuze Game Reserve property. However, members of the APU stated that they have seen ruins of a building from the Phinda side of the fence. The store is marked on the map (fig. 29). Katema Settlement is a more recent Erf, and it replaced Umzaba and Geja, but these original diagrams could not be located.

The surveyor general maps also indicate existing tracks and roads and these would probably relate to general trade routes.

FIG. 4: LOCATION OF PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES

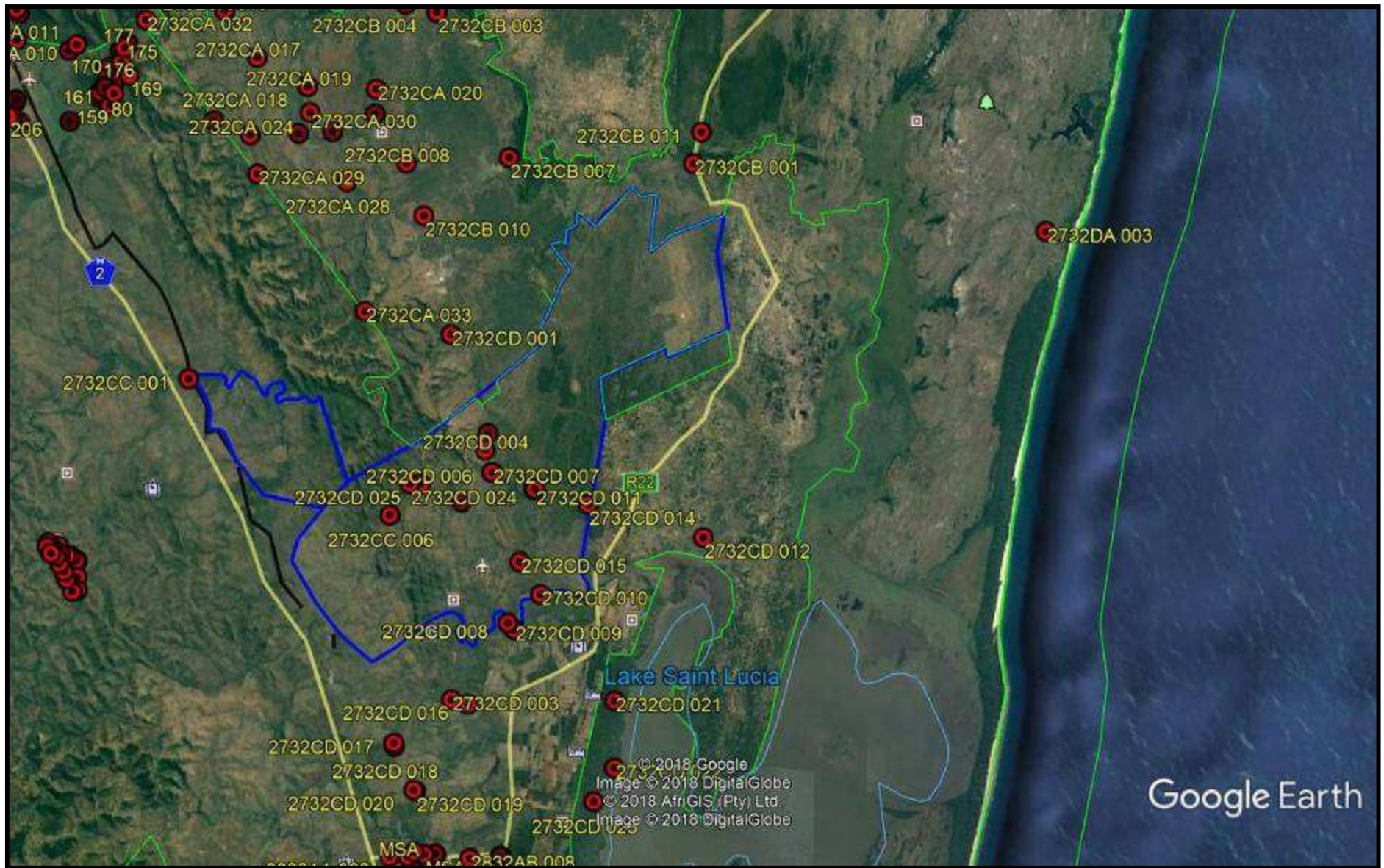


FIG. 5: BIALA (1926)

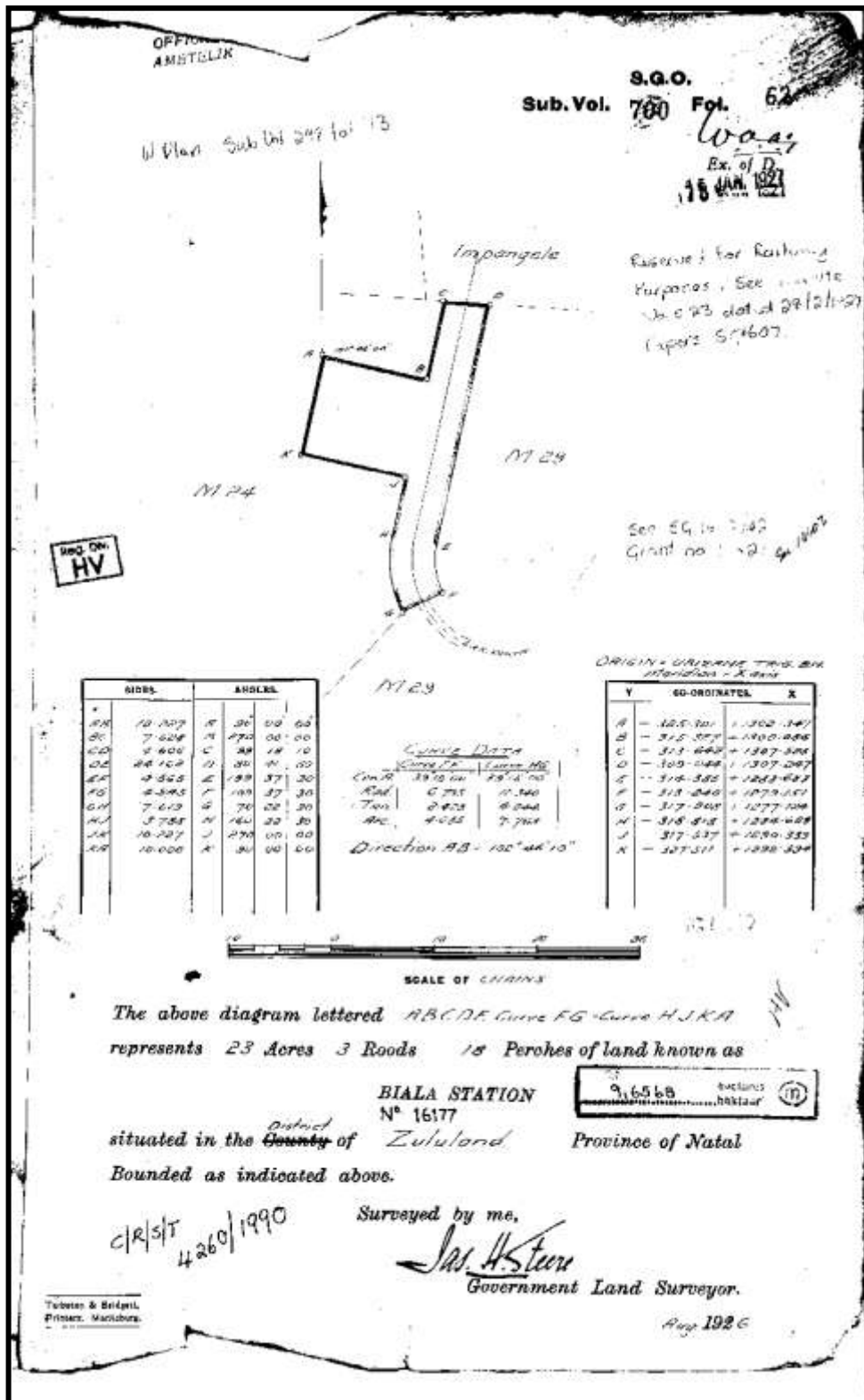


FIG.7: BUMBENI STORE (1924)

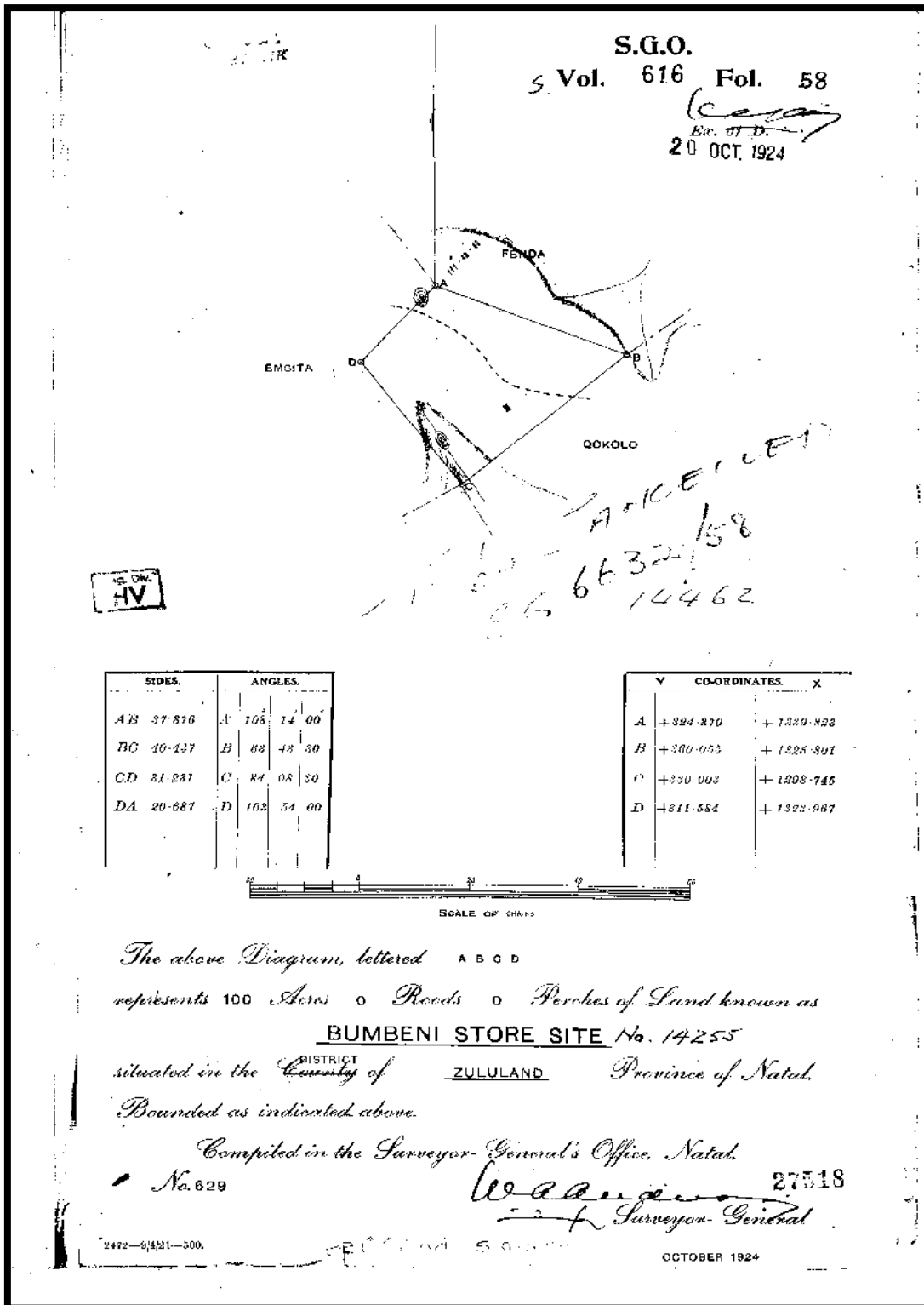


FIG.8: BUMBENI (1923)

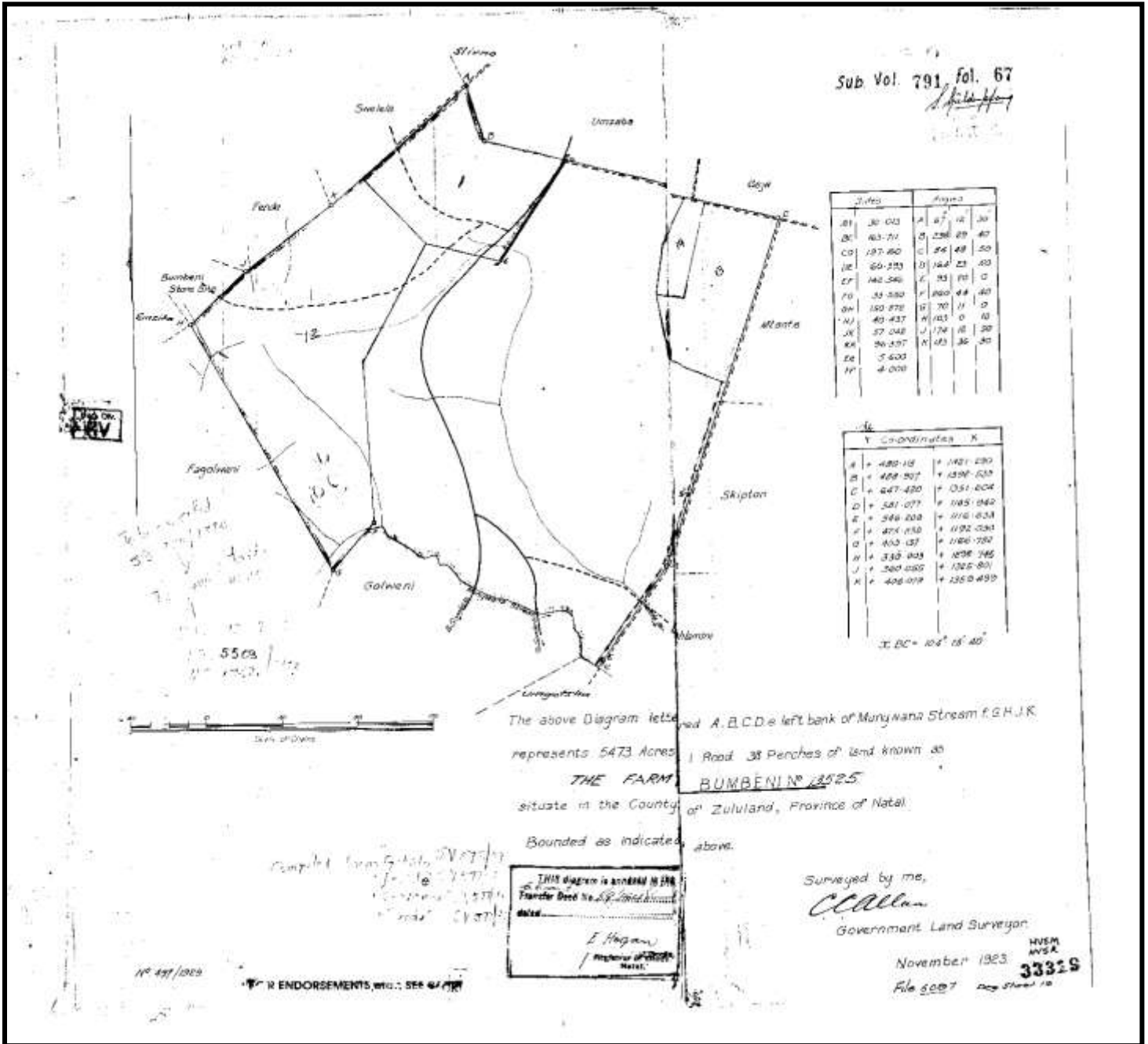


FIG.9: DHLAMINI (1923)

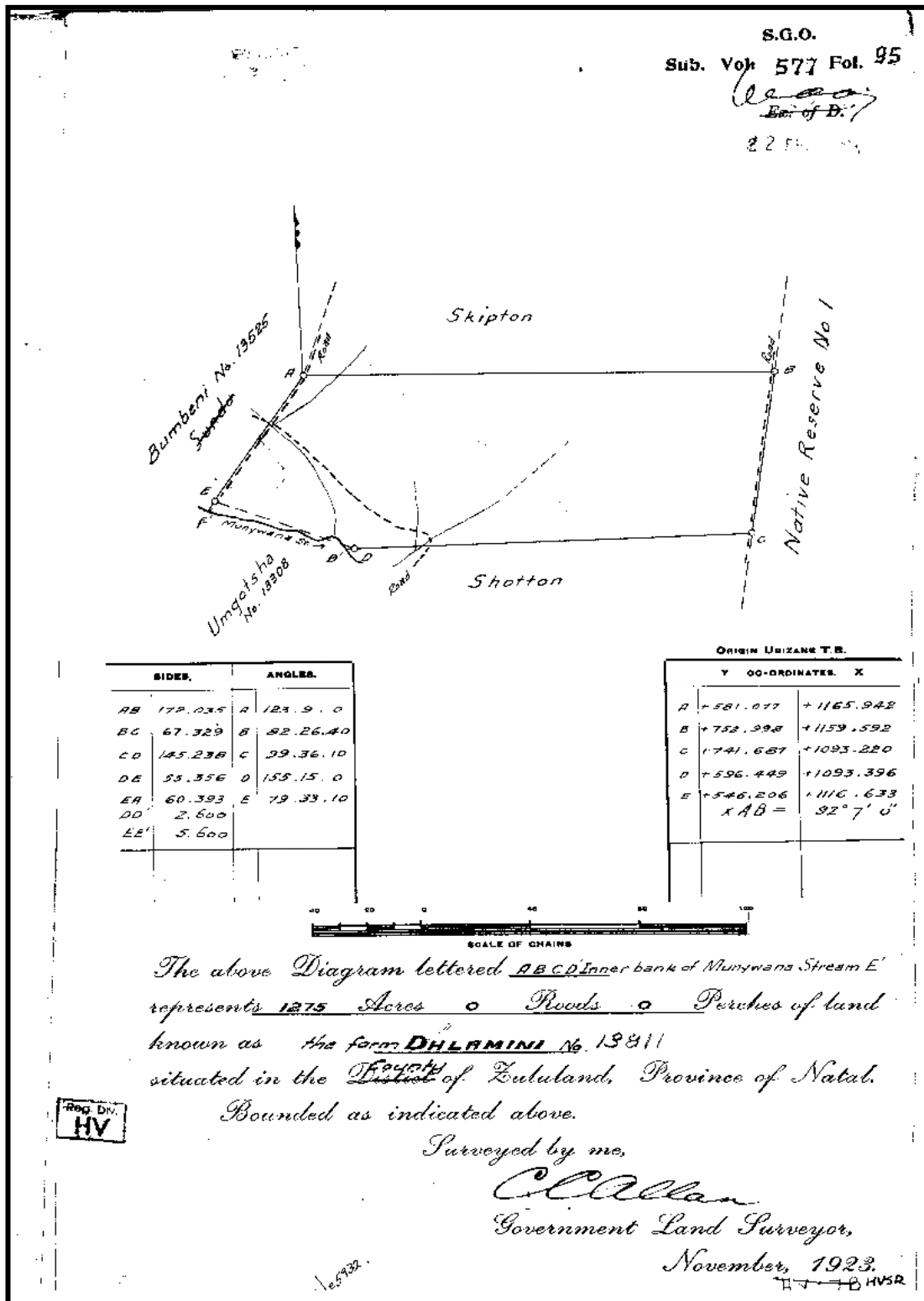


FIG.10: GOLWENI (1923)

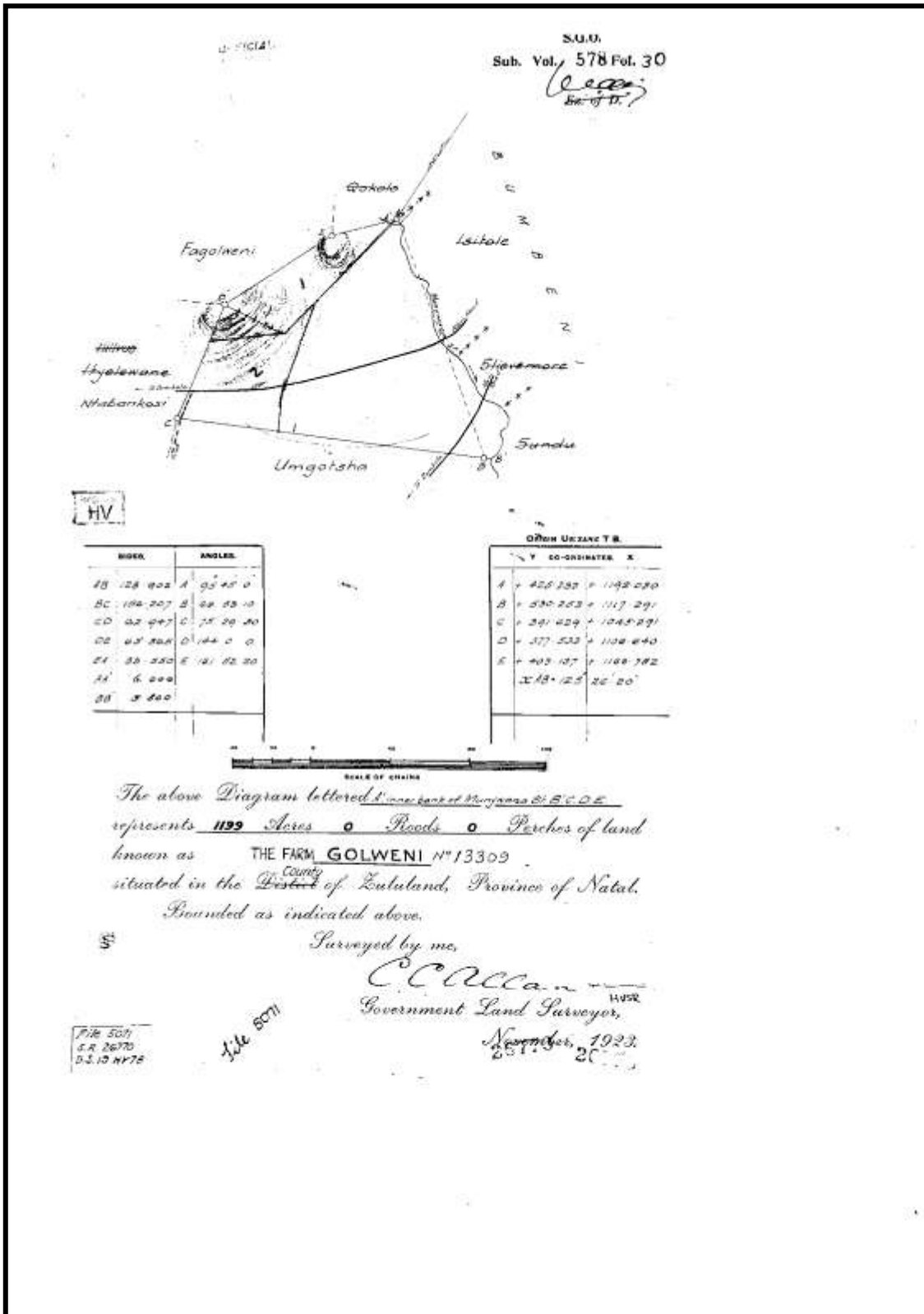


FIG.11 HARROGATE: (1921.3)

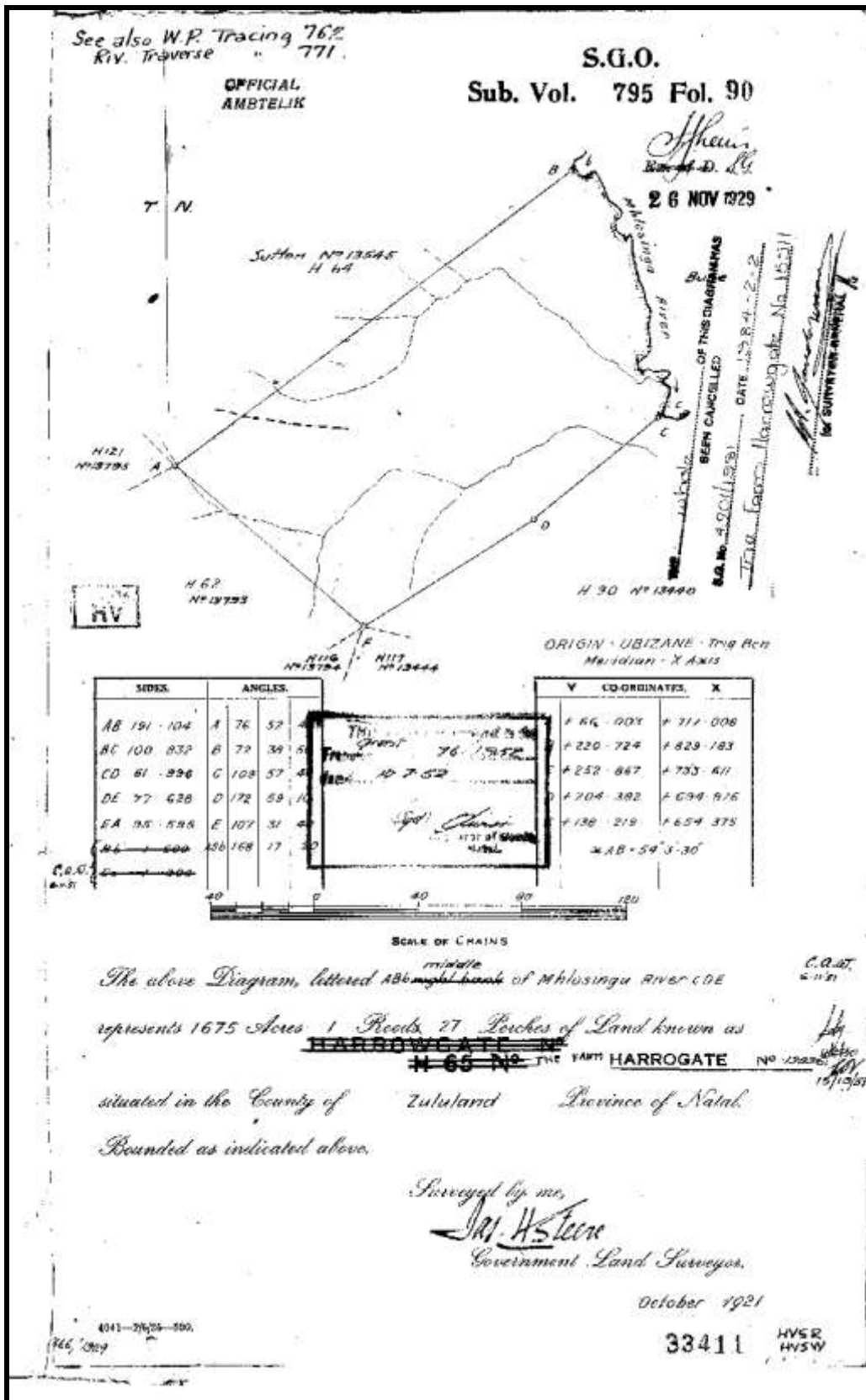


FIG.12: INDABANA (1923)

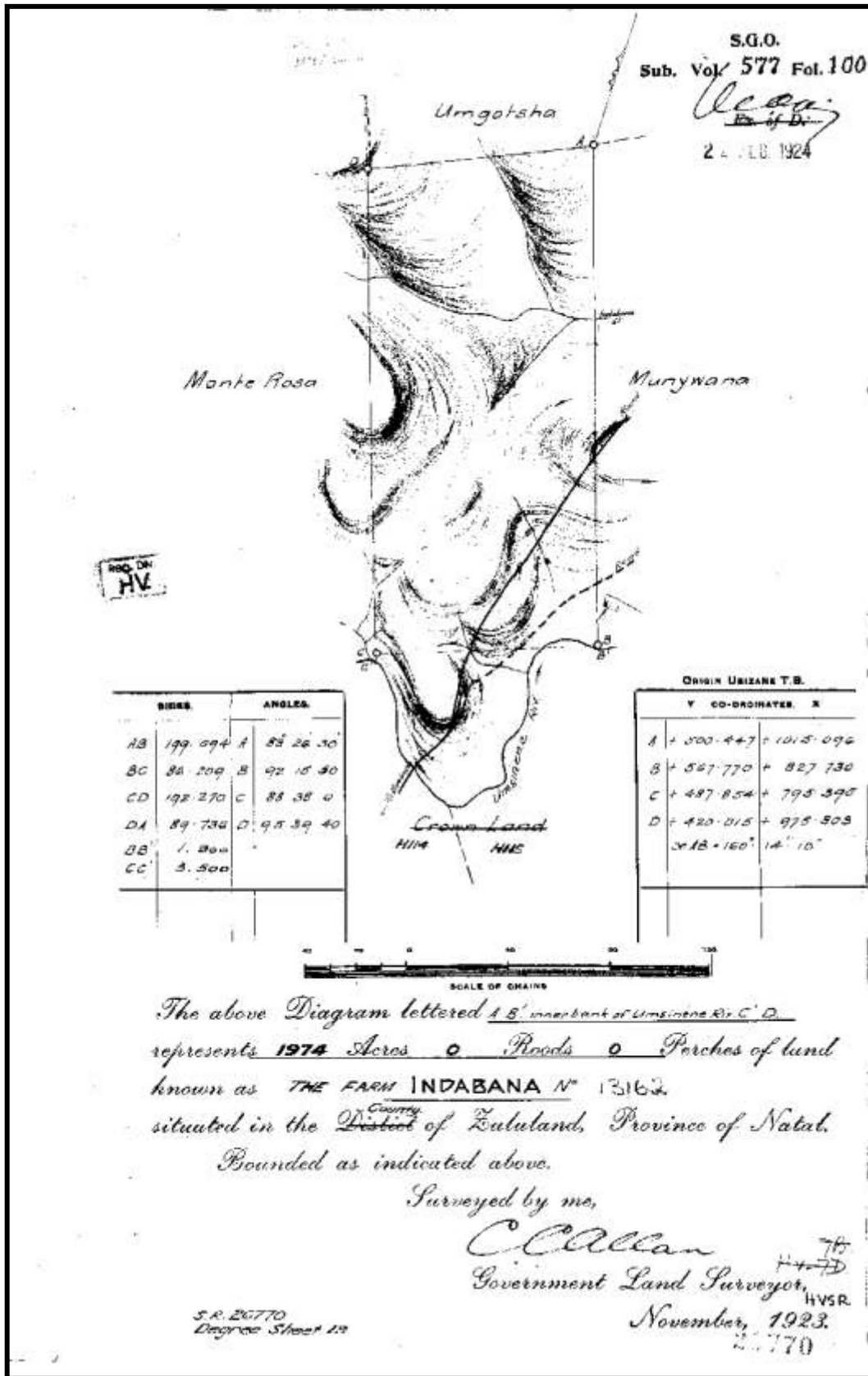


FIG.13: INGAGULA (1923)

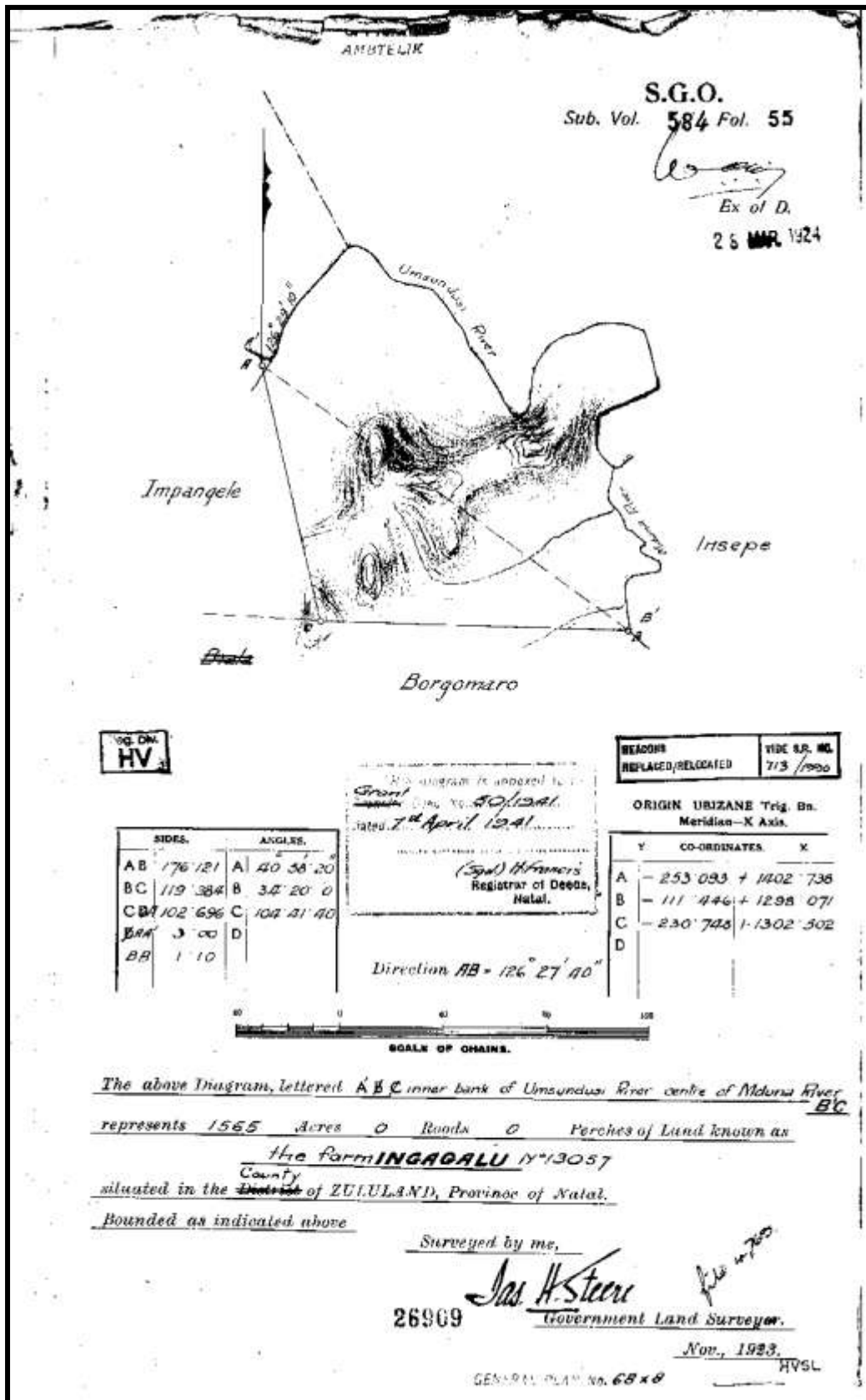


FIG.14: IZWELIHLE (1923)

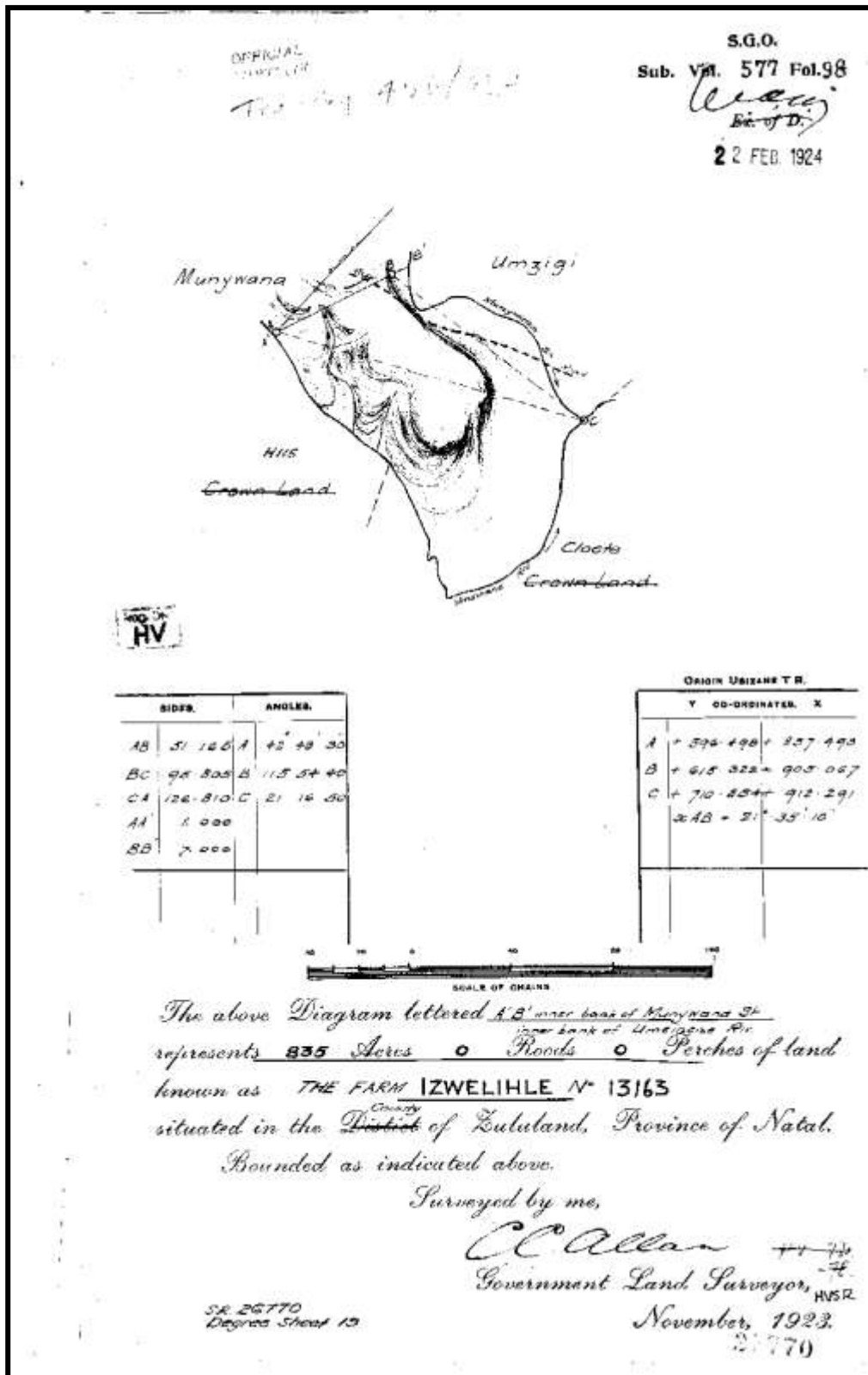


FIG.15: KATEMA SETTLEMENT (1959)

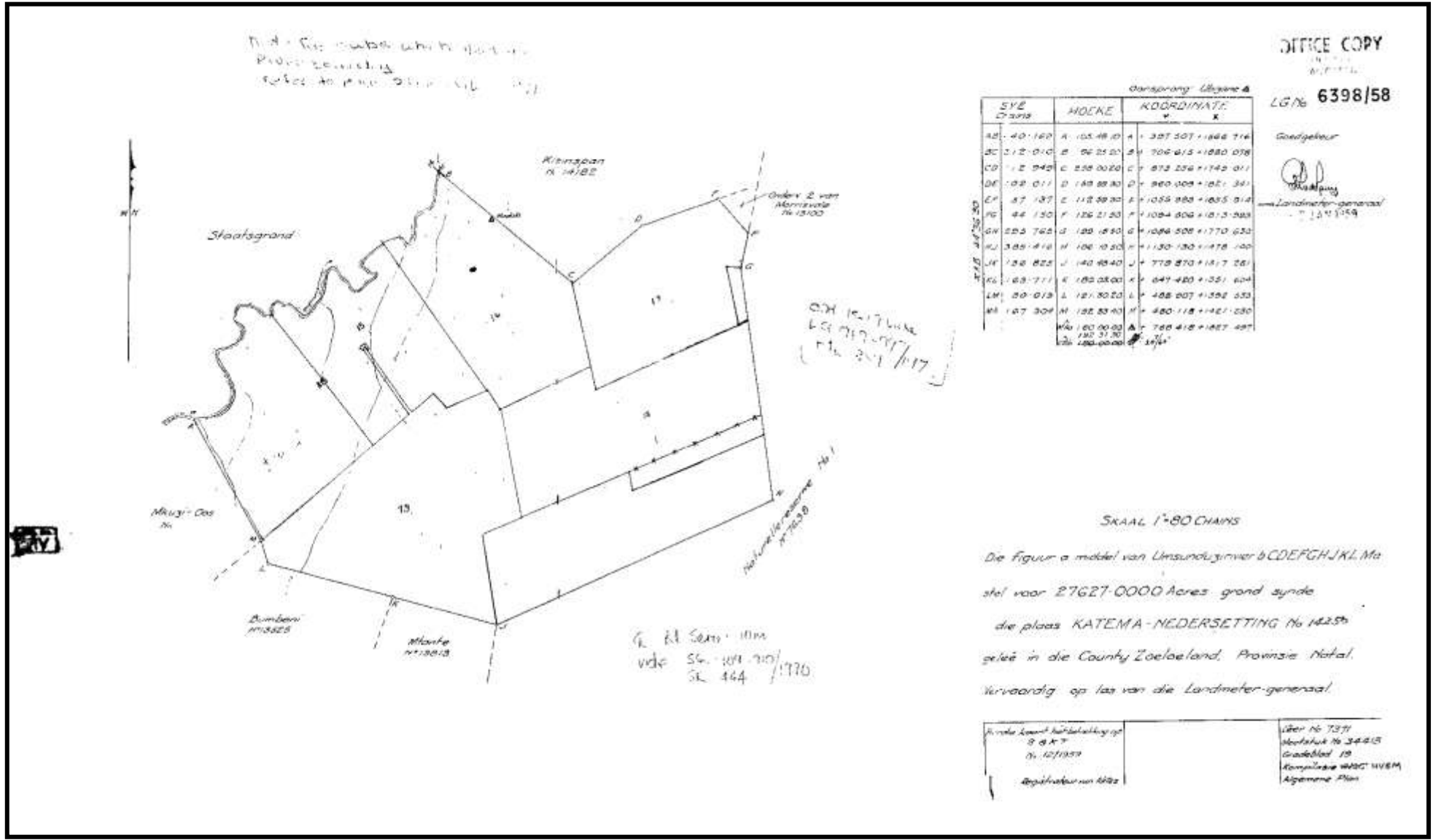


FIG.16: MONTE ROSA (1923)

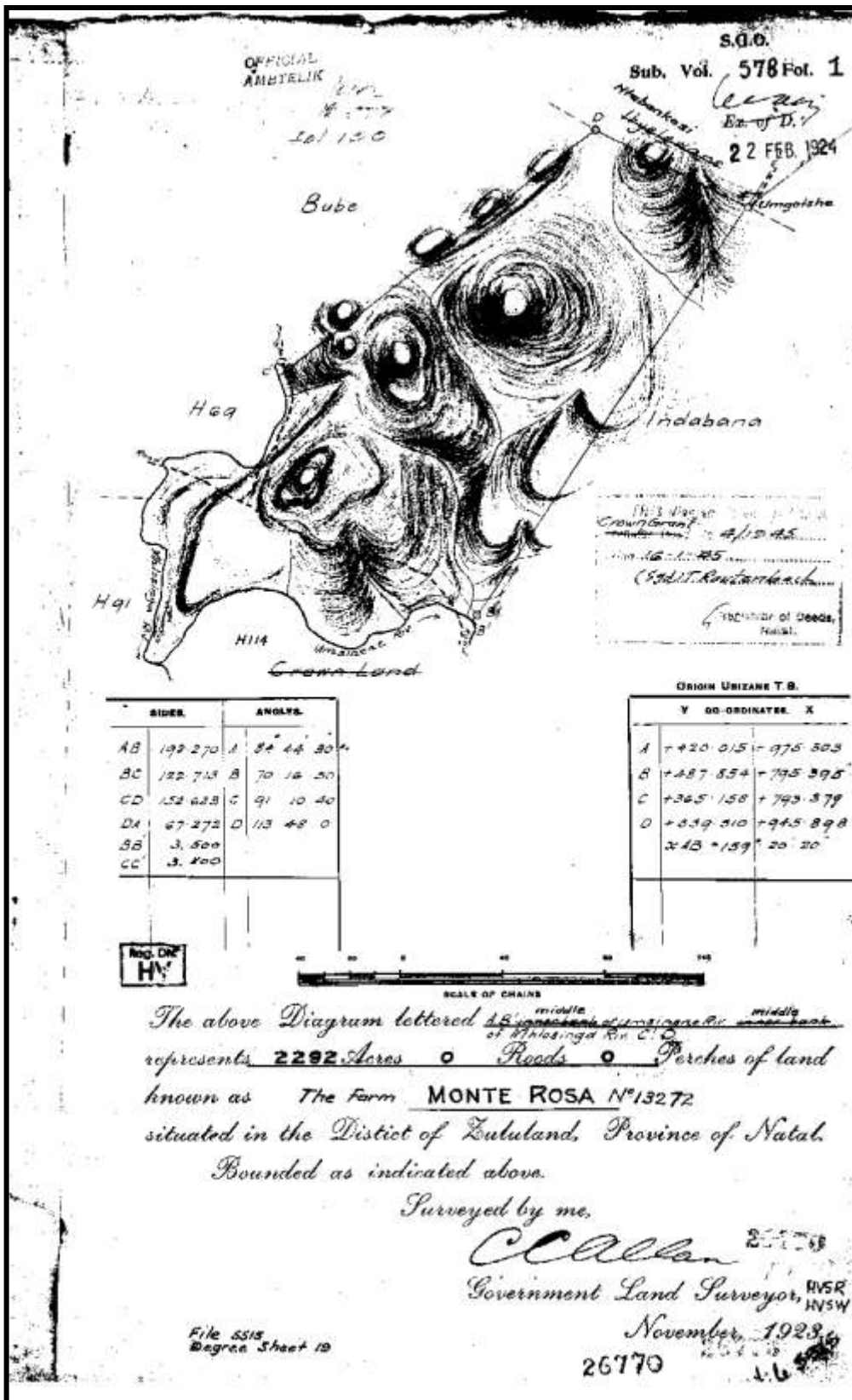


FIG.17: MTANTE (1923)

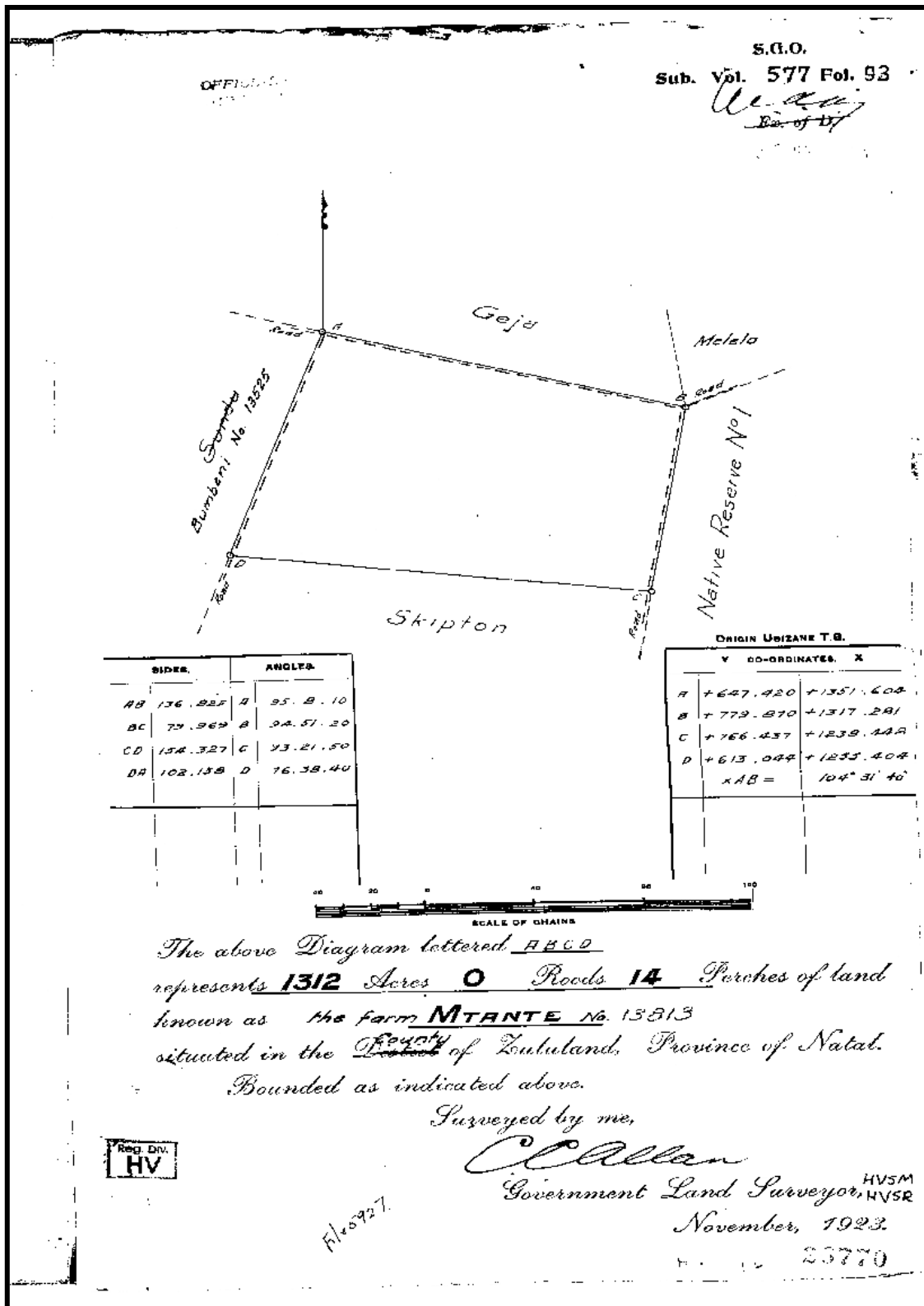


FIG.18:MUNTWANA (1923)

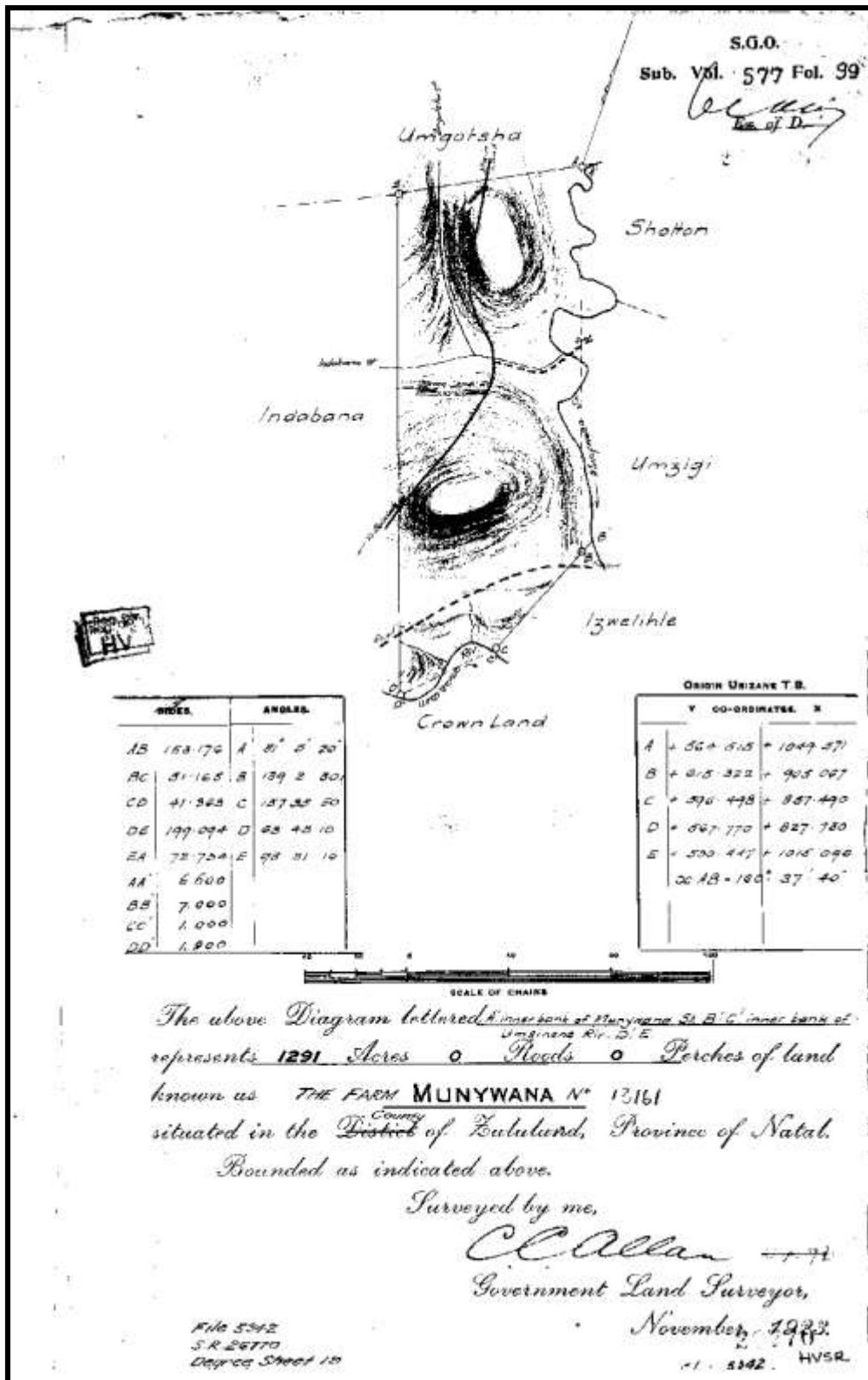


FIG.19:NKONKA (1923)

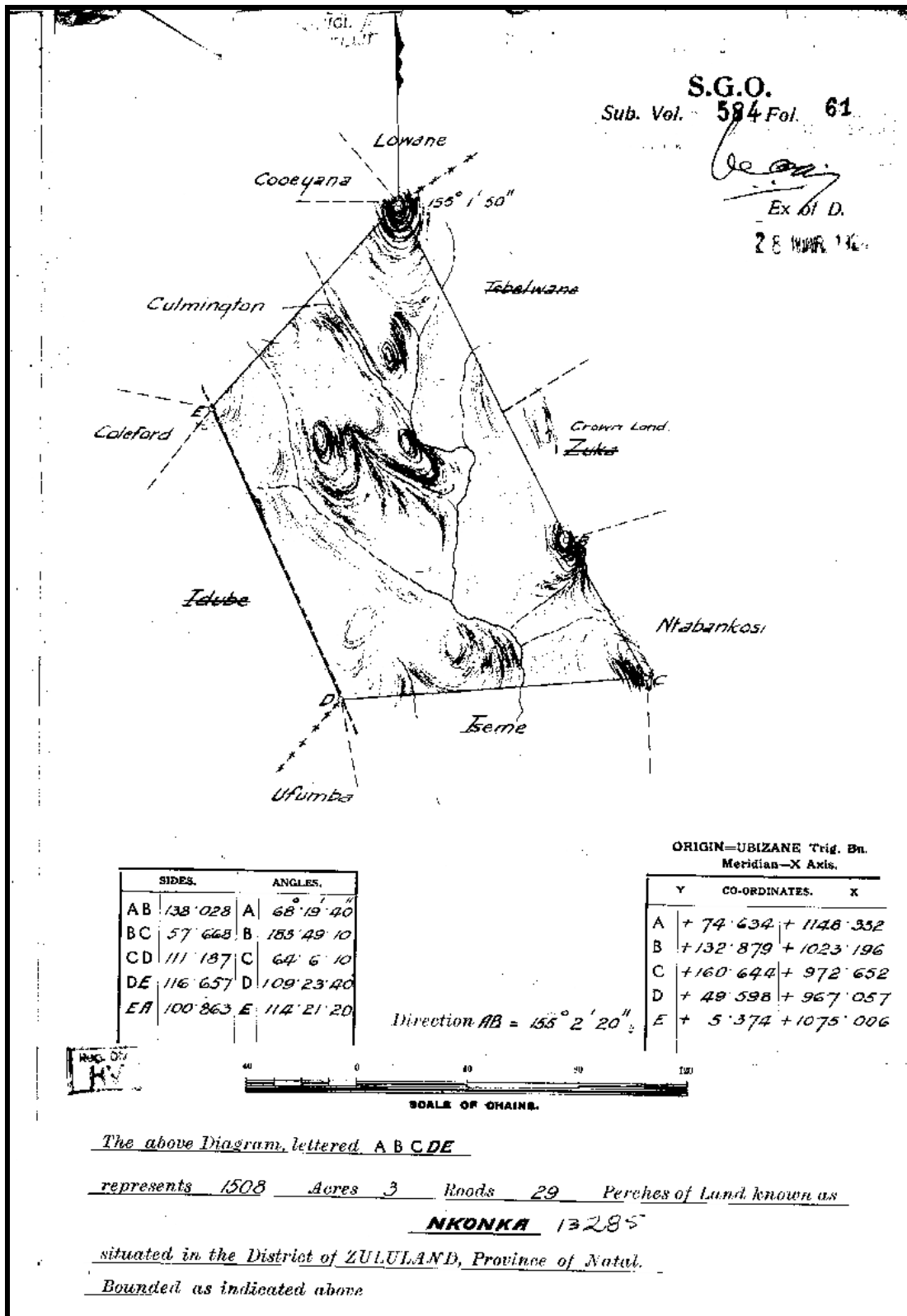


FIG.20: NTABANKOSI (1923)

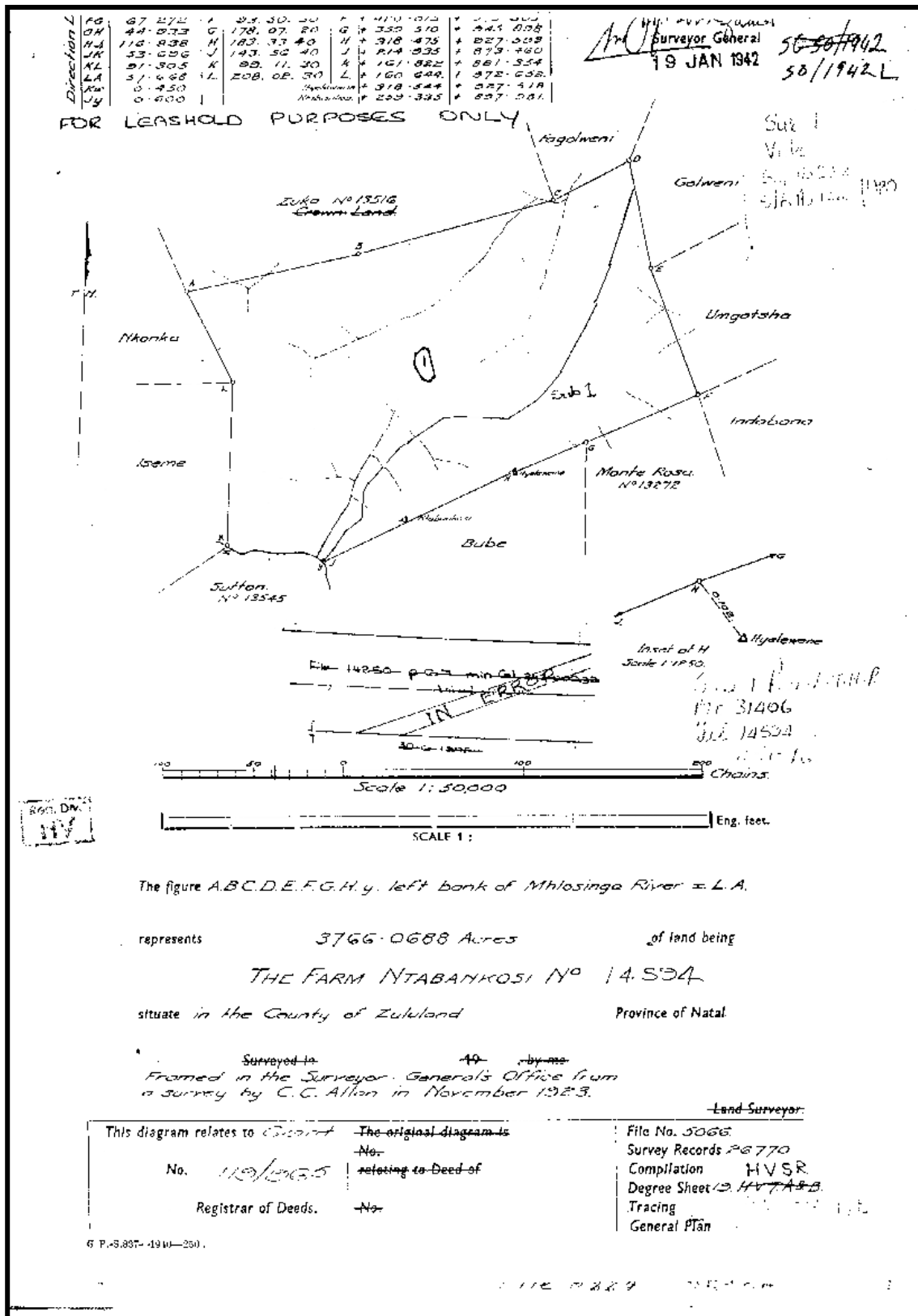


FIG.21: SHOTTON (1923)

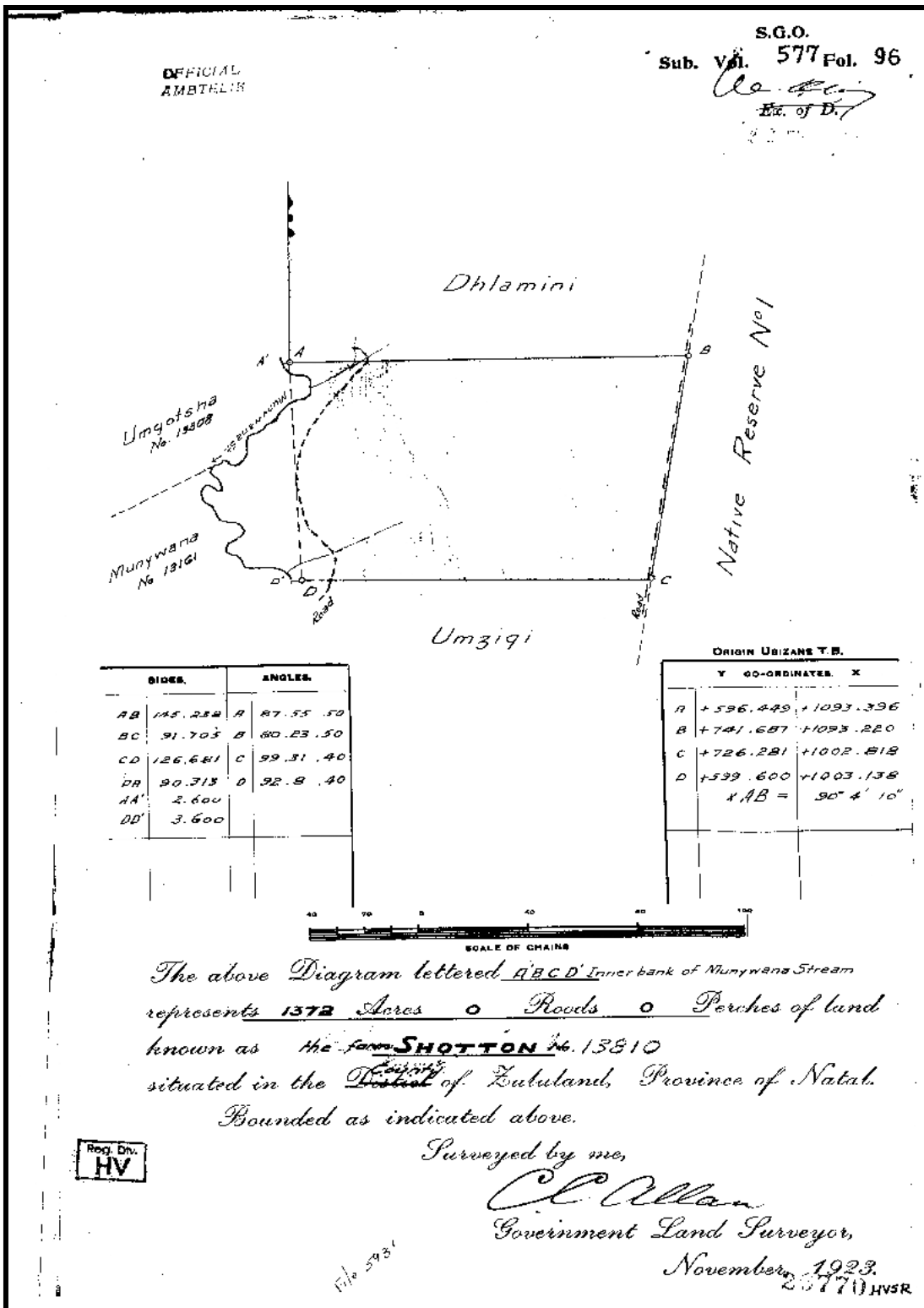


FIG.22: SKIPTON (1923)

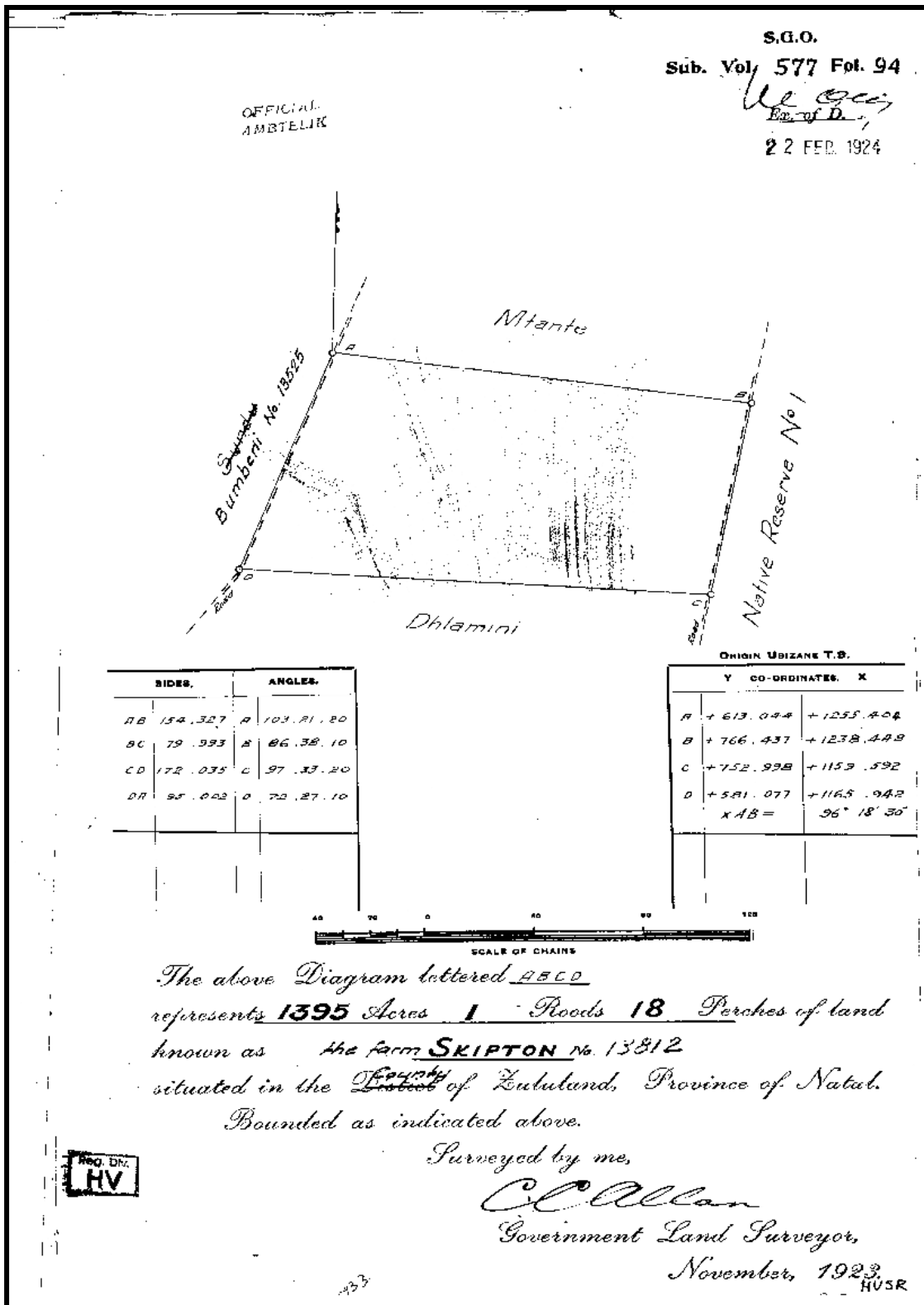


FIG.23:SUTTON (1921)

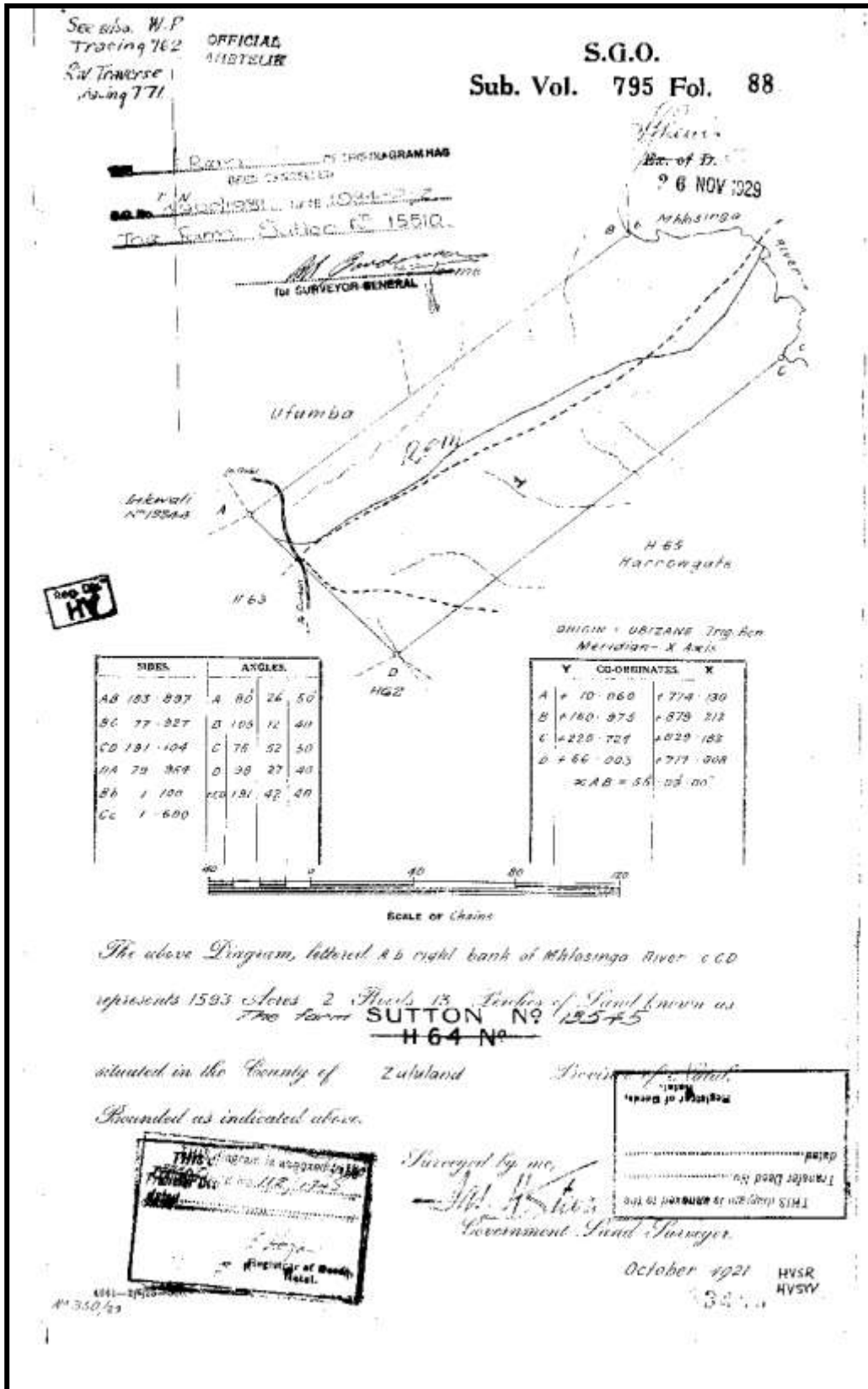


FIG.25:TEBELWANE (1921 and 1923)

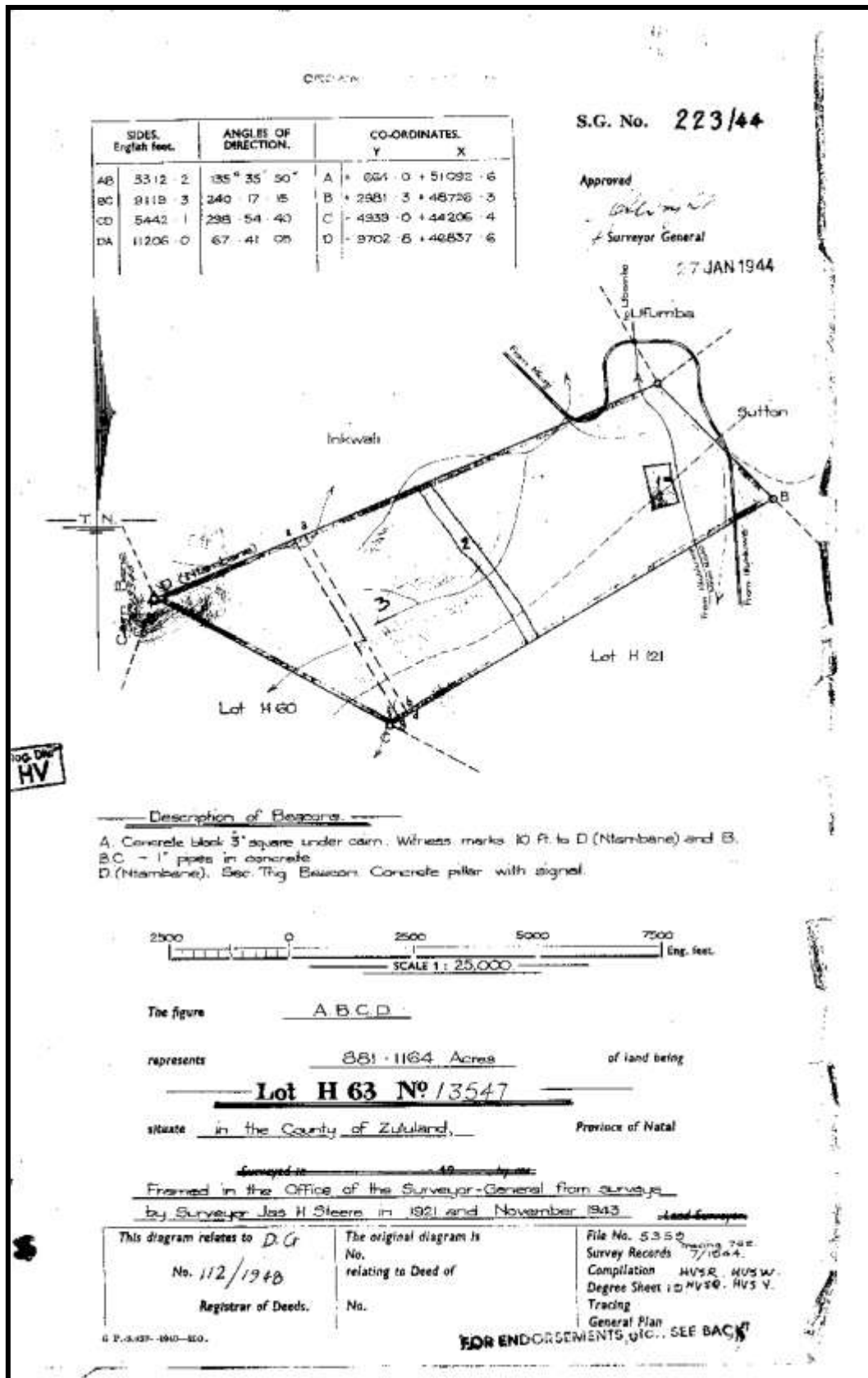


FIG.26: UMGOTSHA (1923)

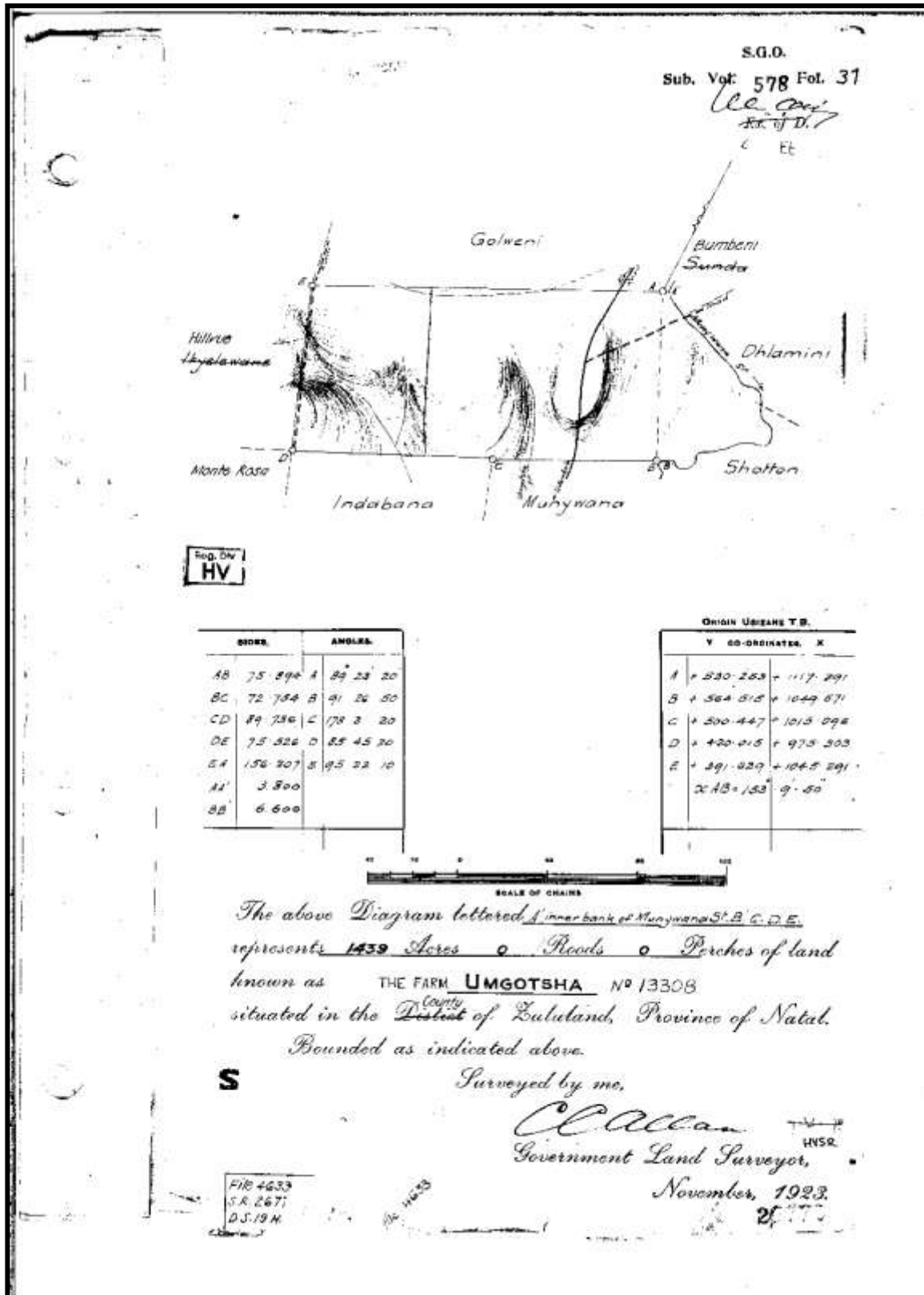


FIG.27: UMZIGI (1923)

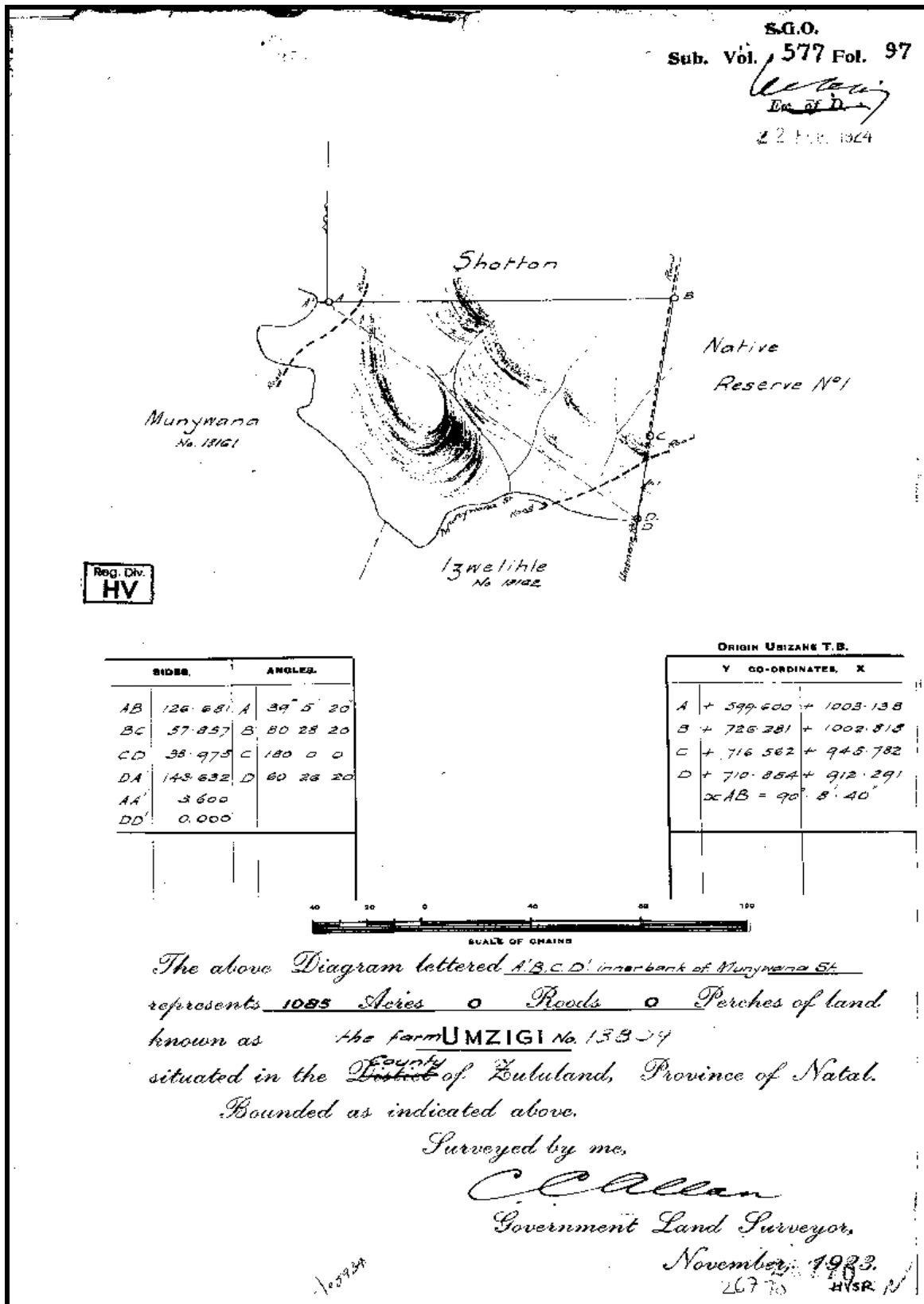
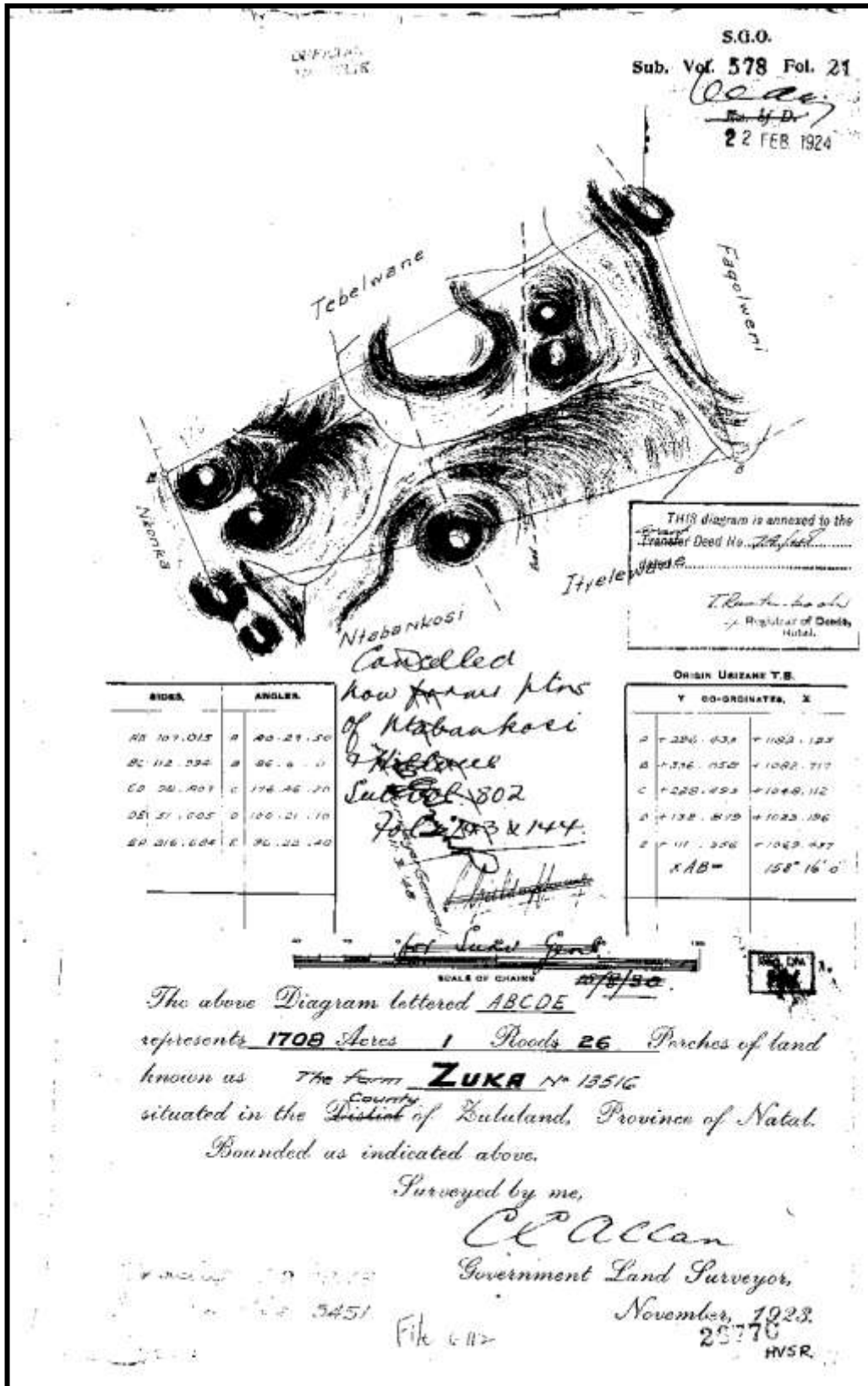


FIG.28: ZUKA (1923)



The 1937 aerial photographs (fig. 29) indicate that there could be at least 45 historical buildings, settlements or huts in the reserve and a further possible 38 features. These have the prefix of PA and PAP respectively on the maps. The aerial photographs show several interesting features:

- Several ploughed areas that do not exist today, i.e. old farmlands that have been revegetated. These are indicative of houses nearby the fields
- Most of the Sand Forest has not changed in size between 1937 and 2004, and that parts of it had already been cleared for agriculture in 1937.
 - The main roads were in existence in 1937, but not in the same place. The roads tend to link farmhouses
 - Farms buildings such as Harrogate (fig. 30), Bumbeni, and Sutton are clearly visible.

These features are being surveyed and assessed during the course of the surveys.

By 1943, many of these settlements have decreased to mainly farm complexes, and two labourers “houses” that stand by themselves (fig. 31). There are five farmhouses (Sutton, Golweni, Monte Rosa, Izwelihle and Bumbeni), and more land is being ploughed. Most of the land is still for grazing purposes, i.e. it has not been worked. The upper two topographical maps, 2732 CA and CB, date to the 1969 and 2002, respectively.

Out of interest is the Golweni Sisal farm of which there are no traces today.

FIG. 29: LOCATION OF POSSIBLE SITES FROM 1937 AERIAL IMAGERY

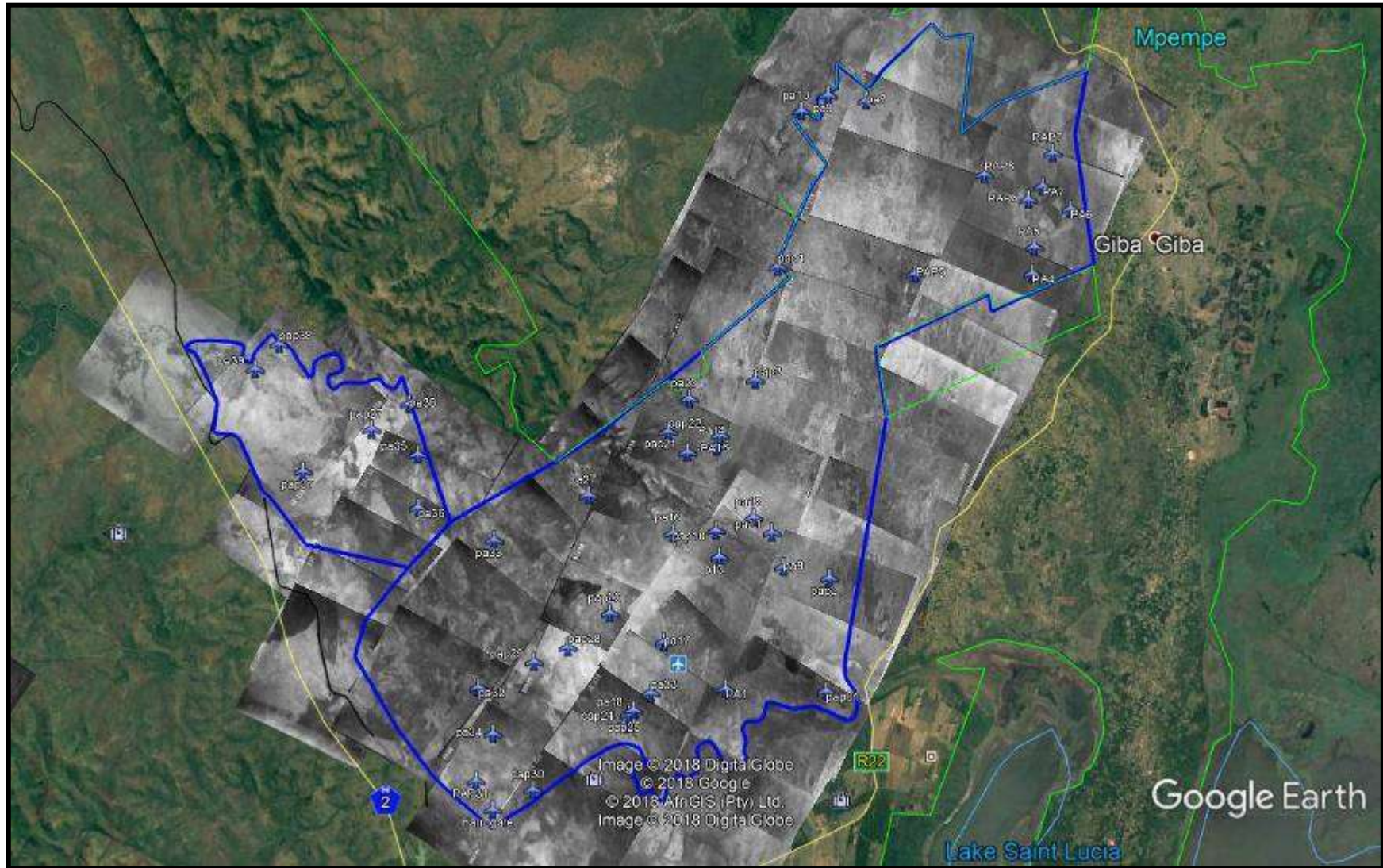


FIG. 30: HARROGATE FARM IN 1937

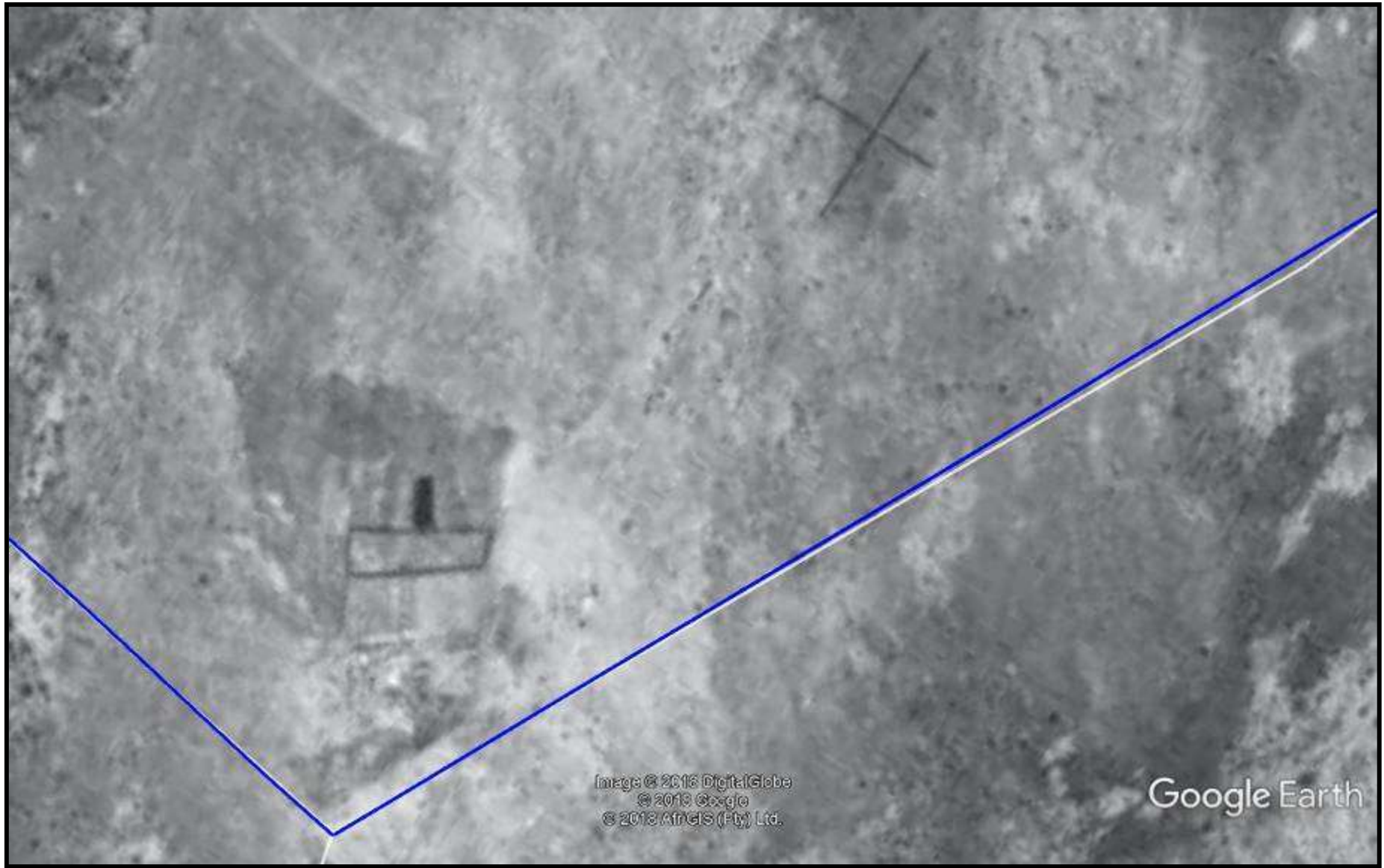
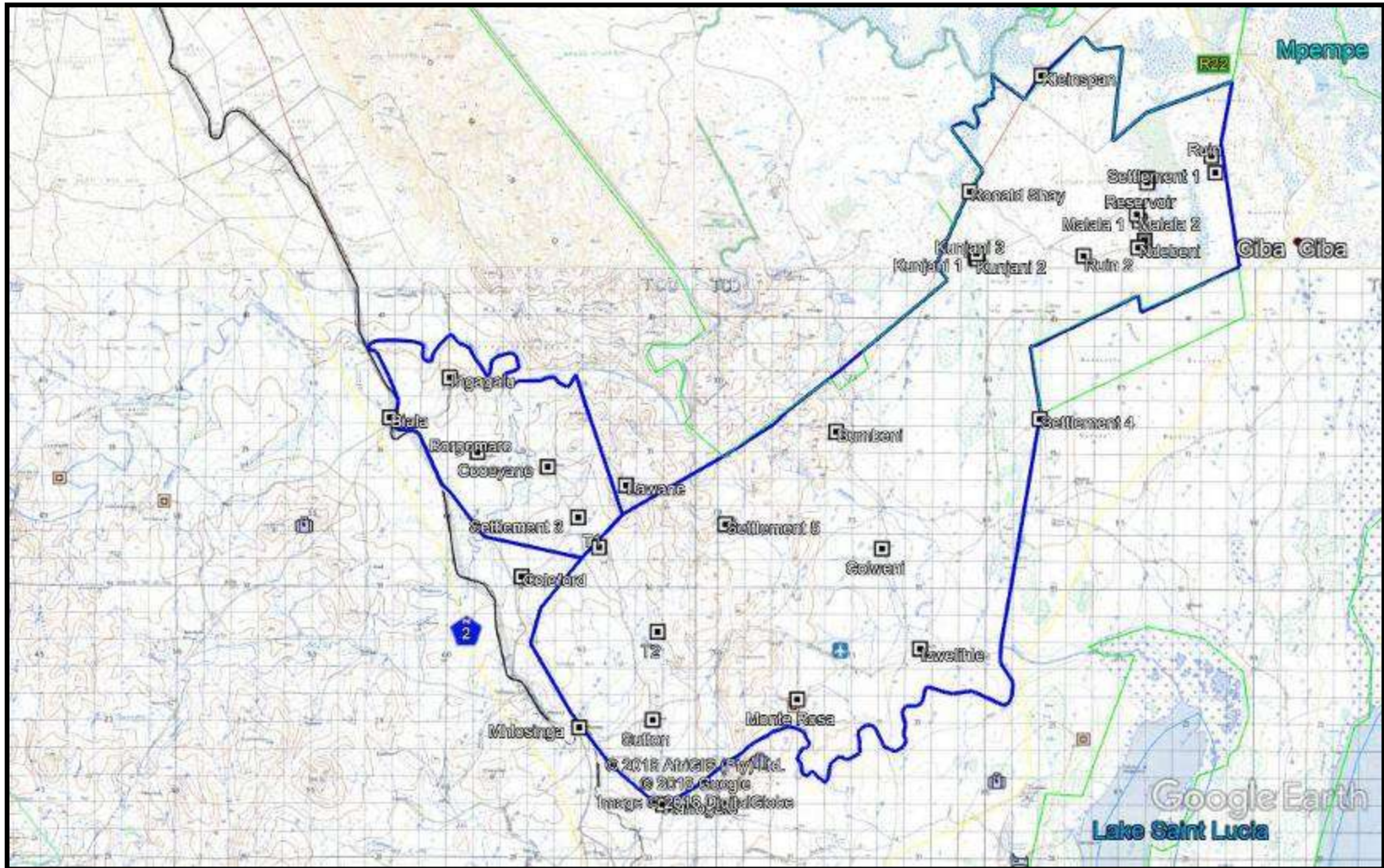


FIG. 31: LOCATION OF SITES IN 1942 AND 2002.



FIELD SURVEY

Five surveys have occurred at Phinda over a ten year period. The first survey was related to a road and possible housing development. The following two surveys was part of a project using overseas based volunteers to assist in the surveys. These two surveys targeted potential areas for heritage sites. The last survey, in 2018, aimed for a more systematic approach where whole areas were covered. In 2019, certain areas were burnt and only these were surveyed.

The strategy for areas such as the Sand Forest is to walk all the tracks in order to obtain some form of systematic sampling.

We have also included members of the APU in some of the surveys in order to train and make them aware of potential sites. This in turn led them to show us areas they already knew of. Phinda management has also interacted with the local community regarding ancestral graves and we have started mapping these locations, or general areas.

Surveys were always restricted by the dense vegetation. In future, surveys should occur near the end of winter, and/or after burns. The southern part of the study area has more grasslands, while the centre is more mountainous and rocky, with the north being covered by sand forest and other bush vegetation.

All the sites have been renamed to form a consecutive sequence of site labels. The change is mainly to the prefix of the site name, i.e. previous sites were labelled PHN or PIN, and now all are PND. All site information, photographs and maps will be submitted to Phinda in an electronic format and a hard copy.

All features that are referred to as human graves must be treated as human graves, even if they are only stone cairns. This is the default status until proven

otherwise. I use specific criteria to determine human graves, but also allow for spatial and chronological variations.

PND01

PND01 is situated at the base of a large hill and below 'Bat Cave'. The site consists of a large boulder that has three entrances that form a small cave. The inside of the cave could not be assessed as it was considered unsafe (concerning wildlife). We estimate that the inside of the cave is ~ 4m x 2m in length and breadth. There is an archaeological deposit, inside and outside of the cave that contains artefacts and probably features.

The site consists of scatters of MSA and LSA stone tools. These tools are made on a variety of raw materials that include dolerite, quartz, quartzite, and cryptocrystalline silicates² (CCS).

- The MSA stone tools include:
 - (utilised) flakes
 - cores
 - one unifacial point (probably used for a spear point).
- The LSA stone tools include:
 - upper and lower grinding stones
 - (utilised) flakes
 - cores
 - adzes (used for wood working)
 - scrapers (used for hide working)

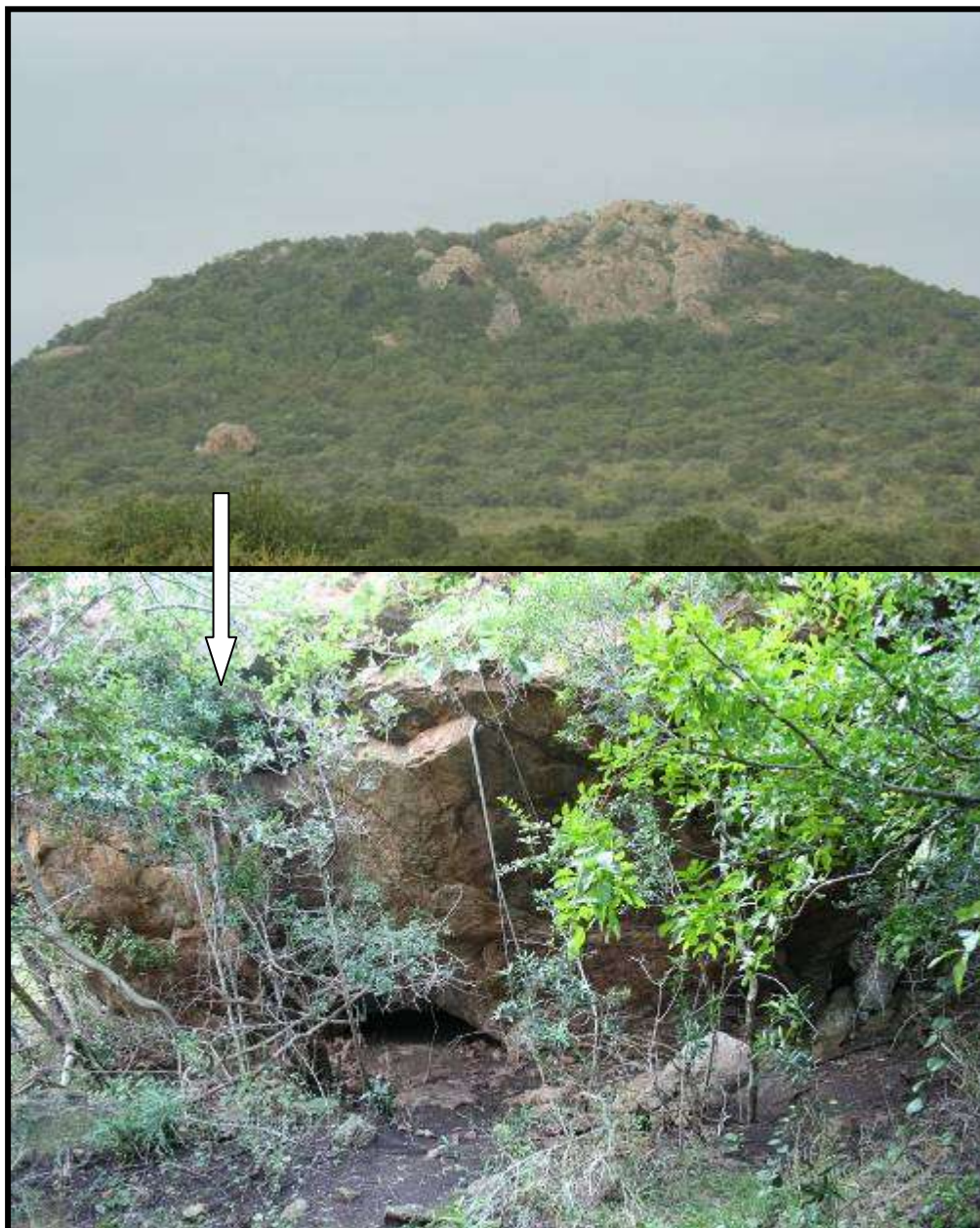
In addition to the stone tools, some pottery was observed on the surface.

Significance: The site is of high significance. Few cave sites are found in this area, and fewer of these have archaeological deposit. The abundance of artefacts on the surface suggests that more would be located in the deposit. The

deposit probably has features such as hearths, bedding, work areas, etc. The site has excavation potential.

Management plan: The site has potential for tourism; however, the deposit and cave, in general, would need to be protected and restricted to supervised visits. This would entail creating a walk-path to the site and around the boulder. A display with an explanation of the site and artefacts site would benefit any visitors.

FIG. 32: PND01



PND02

PND02 is located ~100m uphill from PND1. The site consists of a series of stone walled terraces and at least two circles. The stone walling is very low to the ground. Either the walling is very old, and thus eroded/covered, or it is the foundations of more recent settlements that had other structures above the ground (such as poles). We observed a few grinding stones in the general area, but no pottery sherds. We cautiously place this site in the more recent past.

Significance: The site is currently of low significance. However, it should be resurveyed after the area has been burnt, or in late winter before the summer rains. We could barely observe the walling and thus an “untrained eye” would have more difficulty.

Management plan: The site is currently not practical for tourism. The vegetation needs to be cleared first and the site has to be resurveyed for potential settlement walling. If there is walling, then a site plan (or map) can be drawn that illustrates the various features and their uses.

PND03

PND03 is located on top of the hill above PND1 and 2, just below the communications towers. The site is an extensive scatter of LSA stone tools that continue along most of this hill. The stone tools are mostly on CCS, although a few are on quartz and dolerite. The stone tools consist of (utilised) flakes, and cores.

Significance: The site is of low significance.

Management Plan: The site is not practical for tourism.

PND04

PND04 is located on the Zuka lookout road, on the saddle between two koppies. The site consists of an ephemeral scatter of LSA artefacts made on CCS and dolerite. The stone tools include a scraper, a Miscellaneous Retouched Piece (MRP), flakes, chunks, an irregular core, and ochre.

Significance: The site is of low significance.

Management Plan: The site is not practical for tourism.

PND05

The site is located about 1km southeast of PND04, at the base the hill. The artefacts are located in the cleared areas amongst the rocks. It consists of an extensive scatter of LSA stone tools. We observed upper grinding stones, (utilised) flakes, and cores

Significance: The site is of low significance.

Management Plan: The site is not practical for tourism.

PND06

PND06 is located along the Zuka road near a T-junction. It is near the base of a hill and consists of several boulders. The artefact scatter extends around the boulder and to the top of the hill. Just south of the boulder is possible stone terracing. The artefacts include MSA and LSA stone tools. The site may have a deposit, although parts of it have been washed away.

Significance: The site is of medium significance.

Management Plan: The site has tourism potential in that the stone tools are visible.

PND07

PND07 is located along the northwest side of the hill referred to as Matshe Mhlope, along the Mkhuze Game Reserve fence. PND7 consists of a scatter of MSA and LSA flakes. Most of the scatter appears to be on the Mkuze Game Reserve side of the fence. The LSA tools consist mainly of CCS chips, chunks, flakes, an MRP, and cores. The MSA tools consists of mostly dolerite and are demineralised. We were informed that people had lived on this hill in the past; however, we are not sure on which side of the fence this occurred, when they did live in the area, nor if it was in the general area of the hill. We did observe several areas that appeared to be terraces; however, we did not observe any artefacts in these areas. We would need to interview the informant and look at older aerial photographs before the area is resurveyed.

Significance: The LSA site is of low significance. The more recent sites (when recorded) may be of higher significance.

Management Plan: The LSA site is not practical for tourism.

PND08

PND08 is located en route to Zuka Lodge from a Matshe Mhlope. The site is located to the left of the road in a cleared area adjacent to the stream. Site occurs across a +/- 50 x 20m area. It consists of a pottery scatter and fragments of iron ore. The pottery appears to date to the LIA. The sherds are mostly undecorated with orange/red colouring, while one sherd has a black burnish. The site has the potential for iron smelting activity; however, the visibility in the grass was poor.

Significance: The site is currently of low significance. However, it should be resurveyed after the area has been burnt or in late winter before the summer rains.

Management plan: The site is currently not practical for tourism. It would be difficult to use this site for tourism unless the vegetation was first cleared and

then revisited for potential iron smelting activity. If there is smelting activity, then a site plan can be made that indicates the various features and their uses.

PND09

PND09 is located near Zuka Lodge. It consists of a scatter of MSA and LSA stone tools. The MSA tools consist of (utilised) flakes, and cores. The LSA material occurs over a 30m x 30m area and is mostly flakes.

Significance: The site is of low significance.

Management Plan: The site is not practical for tourism.

PND010

PND010 is located to left and right of the Tshabalala Road (and on the road itself). The site consists of a scatter of LSA and MSA stone artefacts. A possible ESA Olduvian chopper may occur as well: it is too weathered for a proper identification. The MSA tools include a unifacial point (spearhead) and general flakes. The LSA material consists of a double-sided scraper, flakes and various upper grinding stones.

Significance: The site is of low significance.

Management Plan: The site is not practical for tourism; however, it may be used as a “cache” for displays. That is, one can use the stone tools on this site for display purposes. It is better to use material from one site/area, than from various sites/areas.

PND011

PND011 (a and b) is located along the base of a ridge near the Fagolweni Dam. The site consists of one small overhang (PND011a) and a larger overhang to the right (PND011b). PND011a was briefly noted as a swarm of bees became

active when we entered the overhang. Artefacts were observed on the floor of the shelter. It is +/-5m long and 2 - 3m deep. We observed at least one hearth and several stone tools. The stone tools consisted of CCS flakes and chunks, and two upper grinding stones. PND110b is probably connected to PND011a (fig. 33). It is +/-10m long, and a maximum of 3.5m deep. The floor of the overhang gradually slopes downwards resulting in much of the deposit being washed away. There is a possible stone wall on one side. Several LSA flakes occur on the surface.

PND011b is important for two reasons:

1. There is a vein of red-brown CCS along the back of the wall. Several pieces have been chipped out. It is thus a possible CCS mine.

2. One decorated pottery sherd was also observed. The sherd had comb-stamped (shell impressed) decorations and is related to those grouped with (Thembi) Tsonga pottery in Richards Bay. This pottery dates from AD 1400 – AD 1650. While we expect Tsonga-speaking people to have lived in the area, as historical records attest to this, it is the first time we have observed pottery of this kind so far inland.

The occurrence of pottery in the shelter can mean one of two things:

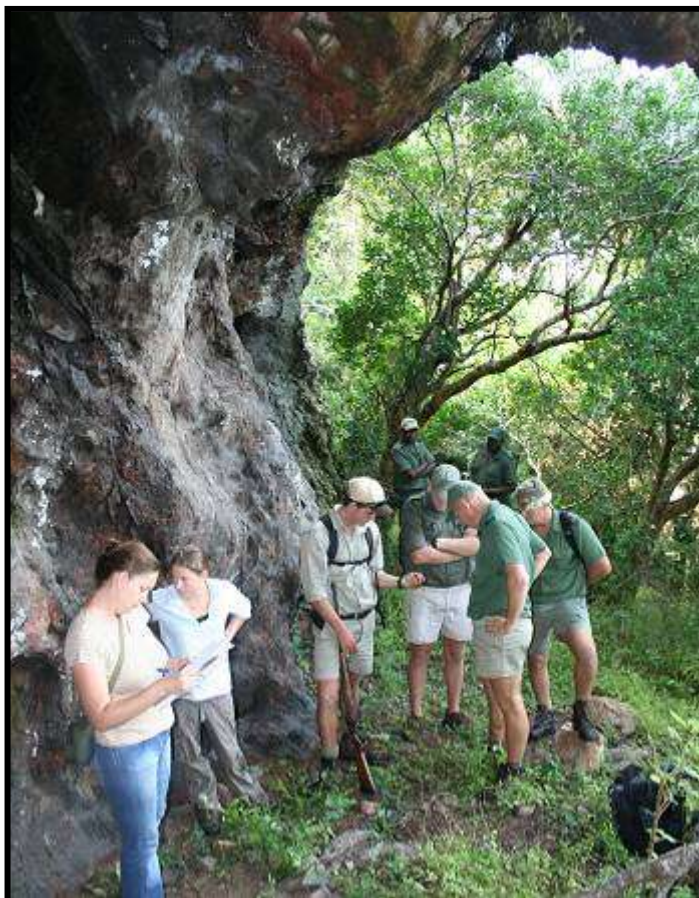
1. LSA Hunter-gatherers were in the area up to c. AD 1650 and had some form of trade network with the LIA farmers. Thus, the hunter-gatherers used the overhang and the CCS vein.
2. Hunter-gatherers and LIA farmers used the site at different times. The LIA farmers would have used the site as a place of ancestral worship. The lack of deposit makes it impossible to decide which option is valid.

Significance: The site is of medium – high significance due to the rare nature of stone mines and the occurrence of decorated pottery.

Management Plan: The site is not practical for tourism. While it is an important site, the average tourist will not make the walk to the site. The site is

also small and cannot hold many people. If the site were to be used, then a walk path would be needed, as well as some form of floor covering.

FIG. 33: PND011



PND012

PND12 is located on the outcrop directly opposite PND11a/b, with Elephant Dam below and to the southwest of site. The site is located near the top of the hill in a small overhang currently used by baboons. One pottery sherd and one cracked small upper grinding stone were observed on the path. The pottery probably dates to the LIA or HP. It is not unusual to find pottery in small caves as this is related to ancestral worship and/or rain making beliefs.

Significance: The site is of low significance.

Management Plan: No mitigation required.

PND013

PND013 is located at the entrance to Nkwazi Camp and it probably extends over the whole campsite. The site consists of LSA stone tools that include flakes and cores.

Significance: The site is of low significance and has been disturbed.

Management Plan: The site is not practical for tourism.

PND014

PND014 is located in and above an area locally referred to as Fossil Dam. Some of the fossils were initially exposed by the building of the dam. The fossils occur over a large area and include a variety of small ammonites, and possible plants (fig. 34). Fossils occur throughout the area; however, they are adequately exposed in this area. We will send some of the pictures to a palaeontologist in Cape Town in order to get more information regarding these fossils.

Significance: The site is of medium significance.

Management Plan: The site has tourism potential however; tourists will need to be monitored in that fossils are not removed. A display case with the fossils would be the preferred option.

FIG. 34: FOSSILS AT PND014



PND015

PND015 is located near the top of Bumbeni Hill. Several LSA flakes were observed in the track, while others were noted towards the southern edge. Several quartzite rock outcrops occur along the edge, and some of these have been quarried for stone tools. One double-sided adze was recorded.

Significance: The site is of low significance.

Mitigation: No further mitigation is required, although the quarrying should be more accurately recorded, in terms of a quantitative and photographic assessment.

Tourism value: Low, unless the fossilised stones are shown as a site visit. This will require permission from Amafa KZN, which I would support.

PND016

PND016 is located near the shelter PHN011. The site is located from the road to the base of the shelter. The site was originally thought to represent fossilised trees; however, more recent evidence suggests it is part of lava flows from the Bumbeni Volcano (fig. 35). A single pottery sherd was located on the slopes.

Significance: The significance of these find will need to be assessed by a palaeontologist/geologist

Mitigation: No further mitigation is required, as the fossil remains should be left where they have fallen. An increase in human traffic could also affect the animal tracks and the slopes.

Tourism value: Low, unless samples are taken for display.

FIG. 35: LAVA FLOW FRAGMENTS AT PND016



PND017

PND017 is located along the fence line of the westernmost border of Phinda. The area is densely vegetated the survey and thus only the road was used in the survey. The site occurs along the entire hill (or fence line on that hill) and includes MSA and LSA tools (fig. 36). As one goes uphill to the next level of the hill, to the north, the stone tools decrease significantly. The MSA tools are made on locally available raw materials, while the LSA tools are made on locally available and “imported” raw materials such as CCS.

The stone tools consist of the following:

- MSA
 - Unifacial points
 - Utilised flakes
 - Irregular cores
- LSA
 - Side scraper
 - Side-end scraper
 - Double sided adze (referred to as a ‘slug’)
 - Utilised flakes
 - Irregular cores

Significance: Despite the abundance of stone tools at the site, it is of low significance. The low significance is due to the secondary context in which the tools occur and their lack of a stratigraphic association. The tool assemblages would not enhance the general knowledge of the MSA and LSA of the area.

Mitigation: No further mitigation is required, however if the area is to be affected, then quantitative analyses should occur.

Tourism value: Low, unless tools are sampled for display.

FIG. 36: ARTEFACTS FROM PND017



PND018

PND018 is located on the hill to the north of PND017. The northern side of the hill has a higher density of stone tools than the southern side, but the overall density is lower than that at PND017. The site probably occurs over the entire hill; however, most of it was covered in dense grass vegetation. The site consists of a scatter of MSA flakes, and at least ten pottery fragments from at least three pots (fig. 37). The pottery fragments probably originate higher up the hill, and on the adjacent property. I noticed potential terracing in this area.

Significance: The site is of low significance.

Mitigation: No further mitigation is required.

Tourism value: Low.

FIG. 37: ARTEFACTS FORM PND018



PND019

PND019 is located on the same hill as PND018, but more eastwards along the ridge (fig. 38). Most of the site is situated in proximity to the Acacia tree, where a pottery sherd was observed. Two areas could be the remains of house floors. The area had poor visibility and would need to be resurveyed near the end of winter, or after a burn.

Significance: Pending

Mitigation: resurvey when visibility is better

Tourism value: Pending

FIG. 38: POTTERY AT BASE OF ACACIA TREE²



² Arrows indicate location of possible house floors

PND020

PND020 is located on the top of the hill. The site consists of a small scatter of Middle/Late Stone Age tools that have been exposed by game fencing. The site probably extends over the rest of the hill. The scatter of tools has a low density and includes:

- Slug (on MSA flake)
- MSA (utilised) flakes

Significance: The site is of low significance.

Mitigation: No further mitigation is required.

Tourism value: Low.

PND021

PND021 is located at the base of two hills in a gully that extends at least 400m in a NW-SE alignment (fig. 39). The gully varies in depth and is at a max. ~2m deep. The following artefacts and ecofacts were observed (fig. 40):

- LIA/HP:
 - Pottery fragments on the surface
- LSA:
 - Adze
 - Scraper
 - (utilised) flakes
 - Various cores
- MSA:
 - (utilised) flakes
 - Cores
- ESA:
 - Cleavers
- Palaeontological:
 - Coprolite?

- Teeth?
- General faunal remains

Significance: The site is of high significance due to its variety.

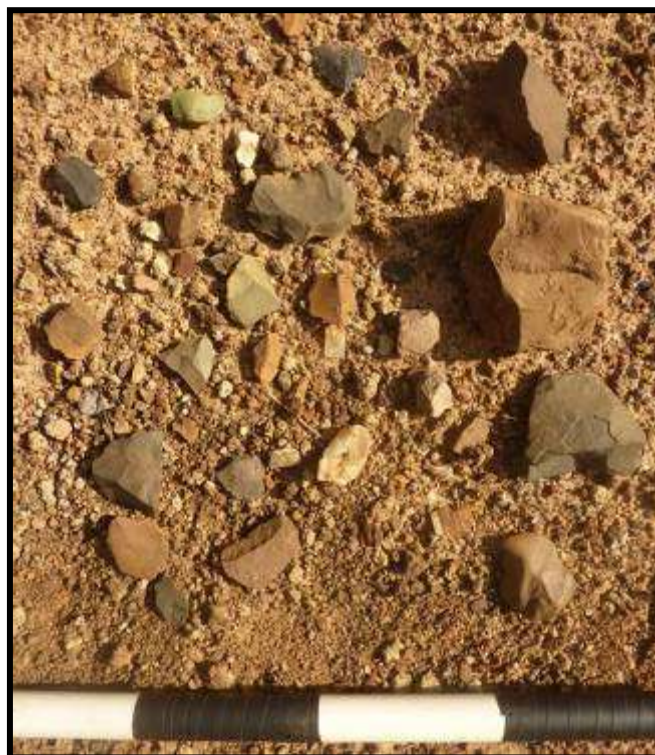
Mitigation: No further mitigation is required, unless the area is to be developed.

Tourism value: High, but no access should be granted.

FIG. 39: VIEWS OF PND021



FIG. 40: ARTEFACTS AND ECOFACTS FROM PND021



PND022

PND022 is located along the hill south of PND021. The site probably occurs across the entire hill as artefacts were observed in many of the more open patches. These patches yielded a variety of Middle and Late Stone Age tools but similar to previously recorded sites (fig. 41).

Significance: The site is of medium significance due to its density of artefacts.

Mitigation: No further mitigation is currently required; however, quantitative analyses, and a sample, should be undertaken if the area is to be affected.

Tourism value: Low, due to accessibility; however, the artefacts could be sampled for display.

FIG. 41: STONE TOOLS FORM AN OPEN AREA AT PND022



PND023

PND023 is located near on the same hill as PND022; however, it is concentrated in one area along the crest of the hill. The site consists of a scatter of (LIA) pottery sherds, lower and upper grinding stones, and possible house floors (fig. 42). The vegetation as too dense in most places to make a full assessment of the site.

Significance: The site is of medium significance due to possible stratigraphy and artefacts. Human burials could occur on this site and thus change the significance to high.

Mitigation: The area should not be affected until it has been accurately surveyed, after the grass has been burnt.

Tourism value: Pending assessment, but potentially medium to high.

FIG 42: PND023: GENERAL VIEW AND ARTEFACTS



PND024

PND024 is located in a drainage line northeast of PND021. We approached this site from the southeast end of the drainage line. The site consists of a large scatter of Middle and Late Stone Age tools that have washed down the hills and have been exposed in a gravel bed (fig. 43). The site extends for over 500m upslope. The stone tools are made from various raw materials, but predominantly from local sources. While the LSA tools are more varied, the MSA tools occurred in higher density. A few pottery sherds were observed.

The stone tools consist of:

- MSA
 - Flakes
 - Utilised flakes
 - Cores
 - Unifacial points
- LSA:
 - Utilised flakes
 - Flakes
 - Medium end scraper
 - Adzes and/or slugs (on MSA flakes)
 - Cores
 - Irregular
 - Bipolar
 - Single platform
 - Bladelet (although it had been broken)

Significance: The site is of medium significance due to the abundance of tools observed. The site can be used for stone tool practicals provided only the surface material is quantified.

Mitigation: If the area is to be affected then a quantitative analyses and sampling of material should occur.

Tourism value: High, however there is a tendency for tools to be removed from site, and thus the area should not be used. The artefacts can contribute towards a display.

FIG. 43: EXPOSED ARTEFACTS AT PND024



PND025

PND025 is located at the top of the hill between PND021 and PND024 and along the southeastern part of that hill over an area of ~300m in length. The site is a LIA site with pottery, upper and lower grinding stones. One undecorated rim sherd was observed. The vegetation was dense resulting in poor ground visibility, however hut floors, graves and/or kraals should occur on the site.

Significance: Pending, but probably medium

Mitigation: The site needs to be re-assessed once the grass has been burnt.

Tourism value: Pending.

PND026, 027 and 028

PND026, 027 and 028 occur along the southern side of the hill and span ~400m. These are three different sites; however, the one merges into the other. Figure 44 shows PND028. The vegetation is less dense here than in other areas, and several open areas could be seen. Many of these open areas are a result of termite mounds; however, these often occur near or on old house foundations. Several patches of Kikuyu grass were also observed, and this is often an indicator of a kraal – these would be in “circular” patches 5m – 10m in diameter, and would not relate to 20th century cattle farms. Many upper grinding stones and several lower grinding stones were observed. These were used mainly for maize (fig. 44) although some could be general whetstones. Only one obvious stone feature was observed in all of the sites. This was a rectangular foundation between PND027 and PND028 (fig 45). This is unlikely to be a grave as it is in the incorrect orientation. Several undecorated pottery sherds were observed at all three sites.

The site appears to date to the latter part of the LIA or the HP. The rectangular feature suggests the site dates to at least post AD 1880s; however this could be an isolated incident or at the end of the occupation of the site. The

lack of human graves is interesting however; these may be obscured by the vegetation or burial style.

PND027 was revisited in 2013, and the site extends over a much larger area than originally thought.

Significance: The site is of medium significance in that it appears to have a spatial component and a variety of grinding stones, pottery sherds, and potential house floor features. Several graves should also occur in the area.

Mitigation: The area should not be affected until a more in depth survey has been undertaken. This survey would occur after the area has been burnt, or at the end of winter where the grass is less abundant. The survey would include plotting the various artefacts, and a more systematic survey of the area.

Tourism value: Low, due to the poor visibility of the site in general.

FIG.44: VIEW OF PND028



FIG. 45: LOWER GRINDING STONE & RECTANGULAR FEATURE AT PND028



PND029

PND029 is located in a small erosion gully. The site consists of a few stone tools and fossils (fig. 46). The area was covered in dense vegetation making a proper survey difficult.

Significance: Pending, but probably low significance.

Mitigation: Pending.

Tourism value: Pending.

FIG. 46: GULLY AT PND029



PND030

PND030 is located ~700m north of PND029. The site consists of a small scatter of Middle Stone Age tools in the intersection of the track. More of the site will occur in the bushes and it will be re-assessed later.

Significance: Pending.

Mitigation: Pending.

Tourism value: Pending.

PND031

PND031 is located along the eastern fence of Phinda and adjacent to Lulu Bush. This area was our first survey in the Woodlands forest area, and we used the cleared road as an initial indicator for potential sites (fig. 47). This part of the road stretched for ~2km. In this section, I noted one lower grinding stone, and several pottery sherds. The pottery sherds were located mostly along the fence had a thin wall and were decorated. The initial decorations were similar to Mzonjani (EIA Phase) decorations (fig. 48): the pottery was not supposed to be this thin-walled! After locating several similar style sherds along the route, I realised that these pots were similar to those sold at Zamimpilo Curios, and this was confirmed when we visited the market (fig. 48). The lower grinding stone is of interest and suggests that a LIA or HP site may indeed occur in the area.

Significance: The site is of low significance.

Mitigation: No further mitigation is required; however, the area of the grinding stone should be noted for future surveys.

Tourism value: There is no tourism value

FIG. 47: BORDER FENCE ALONG PND031



FIG. 48: POTTERY AT PND031 (LEFT) AND ZAMIMPILO (RIGHT)



PND032

PND032 is located along the eastern fence of Phinda and adjacent to Lulu Bush. The site was found after walking ~4km along the track where PND031 started. The site is exposed by the road and an erosion area, and extends from Lulu Bush and into the Woodlands Forest.

The site consists of a scatter of MSA and LSA stone tools (fig. 49), and two pottery sherds not associated with Zamimpilo. The stone tools consisted of the following:

- MSA
 - Flakes
 - Utilised flake
 - Unifacial point
- LSA
 - Adze (on MSA flake)
 - Flakes
 - Utilised flakes
 - Irregular core (on CCS)
 - Bipolar Core (on CCS)
 - (Partially) bored stone (on CCS)

The most interesting artefact at this site is the partially bored stone from a CCS nodule. First, it is the largest nodule I have seen. Second, one side of the stone has been chipped into to create the hole. It then appears as if the task was abandoned, as there is no chipping on the opposite side. Bored stones are normally made from softer material.

Significance: The site is of medium significance.

Mitigation: No further mitigation is required; however, the area would need a quantitative analyses and sampling if it were to be affected in any manner.

Tourism value: Low, unless artefacts are sampled for display purposes.

FIG. 49: ARTEFACTS AT PND032



PND033

PND033 is located near the area locally referred to as 'The Boulders'. The site consists of a shallow overhang with no archaeological deposit (fig. 50). Just outside of the drip line, and on the slope, were several LIA (?) sherds that had washed downhill (fig. 51). This type of site is reminiscent of those sites used for "ancestral worship" or where offerings were made to the ancestors for rain. There may be an archaeological deposit on the talus slope.

Significance: The site in general is of low significance; however, it has significance as it forms part of the cultural landscape.

Mitigation: No further mitigation is required.

Tourism value: Medium value in terms of the oral history; however, tourists should not be taken to the site. It would be best viewed from the game viewer, and thus not impact on the site.

FIG. 50: PND033 ‘CAVE’³



³ Arrow indicates approximate location of the pottery fragments

FIG. 51: POTTERY AT PND033



PND034

PND034 is located on a lone hill just south of 'The Boulders'. The site consists of a small opening near the top of the hill, with a steep gradient below it. The cave was surveyed as a possible "hide-away" cave. The cave widens inside to over 2m in height. The interior of the cave is ~12m² inside, and is currently inhabited by bats (fig. 52). There is a sandy deposit in the cave; however, this is probably not an archaeological deposit. No artefacts were observed inside the cave. A few undecorated pottery sherds were observed along the talus slope in front of the opening of the cave. The cave was probably used as a "hide-away" cave, or one for ancestral offerings.

Significance: The site is of medium significance and forms part of the cultural landscape. That is, places on the landscape are specifically used because their natural formation is related to a social belief, or historical event.

Mitigation: No further mitigation is required and I would not recommend that the area be visited as it will affect the animal track leading past the cave, and inadvertently expose more artefacts.

Tourism value: Medium value in terms of the oral history; however, tourists should not be taken to the site. The site would be best viewed from the game viewer, and thus not impact on the site.

PND035 (Fossil Dam)

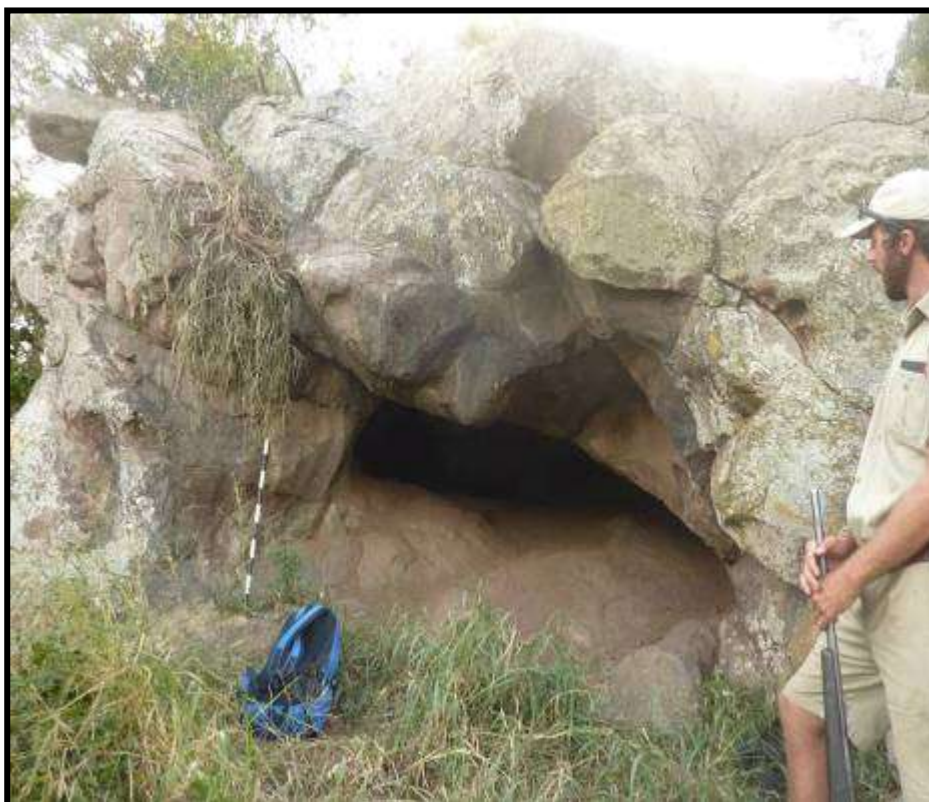
PND035 is located in a deep gully that becomes a small dam (fig. 53). The site consists of a scatter of Middle Stone Age tools on the surface with fossilised trees partially exposed along the northeastern side. The western side of the dam has more MSA and LSA artefacts that have washed down the hill and erosion gully (fig. 54). Many of the MSA artefacts are highly patinated and have demineralised to a degree. This suggests that they may relate to the earlier part of the MSA.

Significance: The site is of low significance due to its low density of tools and fossils.

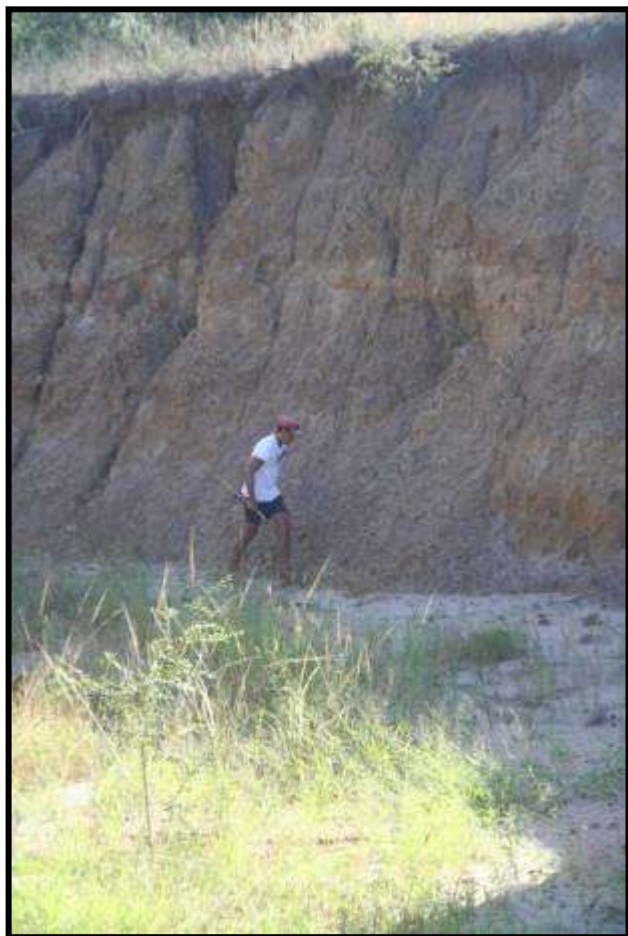
Mitigation: No further mitigation is required, although the area should not be visited unless further mitigation is undertaken. A proper walkway with balustrades will need to be built to ensure that people do not walk on the site. It will be the responsibility of Phinda management to ensure that visitors do not remove artefacts.

Tourism value: High

FIG. 52: CAVE AT PND034



**FIG. 53 EMBANKMENT AT
PND035**



**FIG. 54: STONE TOOLS AT
PND035**



PND036 (Fossil Dam 2)

PND036 is located ~2km downstream from Ammonite Dam, on the Munywana River. The site consists of a very large area of Cretaceous fossils at various stratigraphic levels. This exposure is probably part of the overall fossil layers that have been exposed by the construction of the dam and natural erosion. According to Dr. H Klinger (pers. comm.), the following types of fossils are present (fig. 55):

- Ammonites and bivalves (*Trigonia*)
- Infilled worm or arthropod burrows
- ammonite - ?*Puzosia*
- Trigonia (bivalve())
- Nautiloid
- Ammonite - *Pervinquieria*
- *Acanthoceras fluxosum* Crick, 1907
- Fossilised wood
- Oyster (*Gryphaea*)

Significance: The site is of low palaeontological significance as there are no new or special finds currently exposed. Given the vast size of the fossil beds, some special, or important, finds should occur somewhere in Phinda.

Mitigation: Mitigation is required for this site, as fossils are being removed despite a directive from Phinda management stating that this is not allowed. The mitigation can be one of two options. First, there can be a ban on all site visits to the area by staff and Phinda guests. Second, a wooden walkway along the riverbed can be constructed with plaques indicating various fossils with their description. The walkways should have balustrades to prevent people from walking onto the site. All site visits would need to be logged into a site visit book, in order to control and manage the numbers of people visiting the site.

Tourism value: High

FIG. 55 FOSSILS AT PND036 (FOSSIL DAM)



PND037 (Izwelihle)

PND037 is located on the top of a flat hill, or horizon. Much of the farm is overgrown and only the foundations of a farm building remain (fig.56). We surveyed 200m x 150m of the area but did not record much due to the dense vegetation. A tractor was observed 30m southeast of the main house (fig. 57). The number on the engine block is 9048-C and an internet search suggests that this could be a Massey Ferguson MF50 (1957 – 1964). Two bougainvillea bushes were noted near the house. Izwelihle farm occurs on the 1937 aerial photographs and the 1943 topographical maps. By the time the 1970 topographical maps are produced, the farm does not exist.

This appears to be one of the original farm buildings. Any rubbish dumps in this area will give a detailed account of the life on these early farms. We could not find any rubbish dumps due to the dense vegetation.

The area was revisited in 2018 and 2019 where fragments of a metal pot and ceramic plate were noted (fig. 58) and the main farmhouse foundations.

Significance: The site is of medium-high significance since it is one of the original farm buildings.

Mitigation: No further mitigation is currently required; however, any earthmoving activity, including roads should be cleared with Amafa. The site should be resurveyed when the vegetation is less dense.

Tourism value: Medium, as it is an example of early farm life. Guests can be driven past the house, during a game drive, where the house can be pointed out. Stories regarding early colonial life in the area can also be told.

FIG. 56: HOUSE FOUNDATIONS WITH PILLAR AT PND037



FIG. 57: TRACTOR REMAINS AT PND037 (TOP) AND ORIGINAL VERSION (BELOW)



FIG. 58: METAL POT AND CERAMIC PLATE AT ND037



PND038 (House)

PND038 is located near one of the existing tracks/roads. This track exists on the 1937 aerial photographs, as well as a cleared space where these buildings occur. The site consists of the foundations of two buildings, old and new style bricks, and a rubbish dump. The building foundations consists of a solid floor, however they are of a small size. The visible part of the rubbish dump consists of mostly beer bottles and other alcohol bottles. One glass fragment was noted with oxidation, suggesting it is much older than the rest of the glass. Fragments of glass windowpanes were also noted. There are several cleared areas around the house foundations. There is alien vegetation in the front of the houses and adjacent to the road. Fig. 59 shows some of these features.

Buildings exist in this area in 1937, but are not shown on the 1943 or 2002 topographical maps. The buildings would have been disused when Phinda was formed. The rubbish dump is of interest in that it follows the patterns of rubbish dumps on farms sites: normally behind the main house in a ditch that is then covered when full (with the exception of this dump). There should be several of these dumps around the foundations, perhaps even those dating to 1937. Thus, any rubbish dump should not be cleared away unless it has been thoroughly assessed by an archaeologist as the KZN Heritage Act protects the older ones. The older rubbish dumps would give information about early farm life in the area.

Significance: The site is of low significance.

Mitigation: No further mitigation is required; however, the area should not be cleared without consulting with a heritage specialist or Amafa KZN. The buildings and their ruins are also protected by the legislation. The alien vegetation may be removed so that it does not interfere with Phinda's conservation policies; however, they need to be accurately recorded and photographed before removal. The site should be revisited and the bottles photographed.

Tourism value: Low.

FIGURE 59: AREAS AND ARTEFACTS AT PND038



PND039

PND039 is located in a flat area on a plain above the Munywana River, west of Fagolweni Dam. The site consists of an old water trough that is now in ruins (fig. 60). The dip dates between 1943 and 1990. There are no special attributes to the feature.

Significance: The site is of low significance.

Mitigation: No further mitigation is required.

Tourism value: Low

FIG. 60: WATER TROUGH AT PND039



PND040 (Monte Rosa)

PND040 is located near Rock Lodge, and is one of the original farmhouses of the area. The buildings occur on the 1937 aerial photographs, and on the topographical maps up to 1970. The survey did not locate the farm buildings; however, a terraced area, ceramic crockery, fragments of bricks, and glass bottle fragments were observed (fig. 61). The vegetation was also dense and resulted in poor archaeological visibility. The crockery is adiagnostic “cheap” ceramics. The bottle fragment is that of a beer bottle. The patent for this bottle was taken out in England in 1870s, and production of these bottles stopped in late 1910 (G. De Kamper pers. comm.). These bottles were imported from England. The bottle was probably brought into the area after the first farms were being granted (1910 - 1918), and was used for several years after it was first bought.

A re-analyses of the maps after the survey, places Monte Rosa behind the near the intersection of two roads, of which one leads to Rock Lodge. There are no large visible structures in this area, and I expect the foundations to be similar to those at Izwelihle. The house was probably demolished between 1970 and 1990.

The area will be resurveyed when the vegetation has thinned out after the end of winter, or after a burn.

Significance: The site is of medium significance due to the artefacts that can provide information on early farm life in the area.

Mitigation: No further mitigation is required; however, there should be no earthmoving activity in the general area without consultation – the exception would be grading of the road. Even grading of the roads can expose a dumpsite, in which case the grading will need to stop and the site inspected by an archaeologist. Artefacts from the farm could be used for display purposes.

Tourism value: Medium, as it is an example of early life. Guests can be driven past the house, during a game drive, where the house can be pointed out. Stories regarding early colonial life in the area can also be told.

FIG. 61: A TERRACE AND GLASS BOTTLE FROM PND41 (MONTE ROSA)



PND041

PND041 is located across the road from Sutton (PND080). The site consists of a scatter of LIA/HP pottery shards, a maize lower grinding stone and a possible grave. The grave is an outer oval of lined rocks, with smaller infill (fig. 62). Much of the feature has sunken in and is not clearly visible.

Significance: The grave is of high significance

Mitigation: A 15m buffer should occur around the grave.

Tourism value: None

FIG. 62: GRAVE AT PND041



PND042

PND042 is located ~150m northeast of PND041. The site consists of LIA/HP settlement and 20th century building foundations. The foundations are probably related to Sutton and consist of water tank holders, pump house features, etc. This area is noted as PA41 on the 1937 aerial photographs for having buildings.

The main part of the site dates to the LIA or HP. There is a high concentration of pottery shards, upper and lower grinding stones, and a stone cairn that could be human grave (fig. 63). Some terracing and possible circular house foundations were also visible. This part of the site is probably a settlement.

Significance: The general site is of low significance as it is mostly disturbed. The grave is of high significance.

Mitigation: A 15m buffer should occur around the grave

Tourism value: None

FIG. 63: GRAVE AT PND042



PND043

PND043 is located ~350m north of PND042 along the same contour line. The site consists of a scatter of pottery over an area of 150m x 80m, and several stone cairns and a wall. The pottery is thin-walled and undecorated and dates to the LIA or HP (fig. 64).

There are five stone cairns ~30m apart from each other along the northern part of the site. At least two of these are human graves, while the others may be graves or domestic features. All of the cairns are oval stone features with stone infill (fig. 65).

There is a single, broken, stone wall on the northern part of the site (fig. 66). The wall extends for ~5m.

Significance: The cairns are of high significance and should be treated as human graves.

Mitigation: A 15m buffer should be placed around the edge of the site. The site should be resurveyed after the area is burnt to determine its full extent.

Tourism value: None

FIG. 64: POTTERY AT PND043



FIG. 65: STONE CAIRNS AT PND043



FIG. 66: STONE WALLING AT PND043



PND044

PND044 is located just ~250m southwest of Bumbeni Lodge. The site is a small rock outcrop at the base of the general mountain (fig. 67). The site consists of pottery shards that were at one stage placed in a small crevice (fig. 68). At least three types of pots were noted and a small muthi grinding stone (fig 69). This site would form part of an ancestral worship site.

Significance: The site is of high significance and is a “place of worship”

Mitigation: The site should not be disturbed, nor should tourists be taken into the site.

Tourism value: High. The ancestral worship can be mentioned in passing.

FIG. 67: GENERAL LOCATTION OF PND044



FIG. 68: .CREVICE AT PND044



FIG. 69: ARTEFACTS AT PND044



PND045

PND045 is located on the Bumbeni Mountain just above one of the tributaries of the Muniwana River (fig. 70 - 71). The site consists of a large overhang ~100m long. Some of the overhang would have potential living areas; however, the ground vegetation was too dense to make an assessment at the overhang itself. Several LSA stone tools were found on the talus slope and in the dry river bed, suggesting there was some form of occupation at the overhang (fig. 71).

Significance: The site could be of high significance as there are few LSA shelters with archaeological deposit in the general area. It has high research potential.

Mitigation: The site should not be affected in any manner.

Tourism value: High for general information, but should not be visited.

FIG. 70: LOCATION OF PND045



FIG. 71: LOCATION OF PND045



FIG. 72: ARTEFACTS AT PND045



PND046

PND046 consists of two areas of heritage interests. The one area has a few a dolerite(?) outcrops (fig. 73). These outcrops have been quarried for MSA and/or LSA tools. That is they were knapped to make stone tools (fig. 74). The knapping areas have various types of patina indicating the various ages.

To the southeast of the outcrops is a small dam with potential palaeontological deposit (fig. 75).

Significance: The site is of low significance

Mitigation: No further mitigation is required.

Tourism value: The area can be used for a point of interest when viewed from the game viewer.

FIG. 73: ROCK OUTCROP AT PND 46



FIG. 74: STONE KNAPPING AT PND 46



FIG. 75: POSSIBEL PALAENTOLGICAL DEPSOITS AT PND 46



PND047

PND047 is located near Nyala Dam, and is known as the Nyala Dam grave site. The site consists of several graves under dense vegetation. The visible graves are those of two adults and two juveniles. The graves vary from proper stone cairns, to near sunken features and are good examples of the variety of grave types one can expect to find in the area. The main grave is a packed pile of stones (fig. 76). The descendants are known to Phinda and the site post-dates 1942.

The existing track cuts the site in half where the graves are to the north, while the living area, and possible kraal, is to the south. Several artefacts were noted in the living area: glass, ceramics, metal, daga floor fragments and the remains of a door lock (fig. 77).

The bottle fragment has the most diagnostic features. It is an amber bottle sherd with the complete bottle shown in fig. 77. The sherd would have been part of a Boots Cash Chemists bottle, dating to 1940 -1950. "During the twentieth century Boots, unsurprisingly, worked most closely with colonial partners, primarily (but not exclusively) pursuing business ventures in established British colonies. The company ventured into Africa in the 1940's". (<https://www.antiquebottles.co.za>)

Significance: The graves are of high significance.

Mitigation: The track cannot be moved, but rangers and staff need to be made aware of the graves that occur 2m from the road.

Tourism value: None.

FIG. 76: GRAVES AT PND047

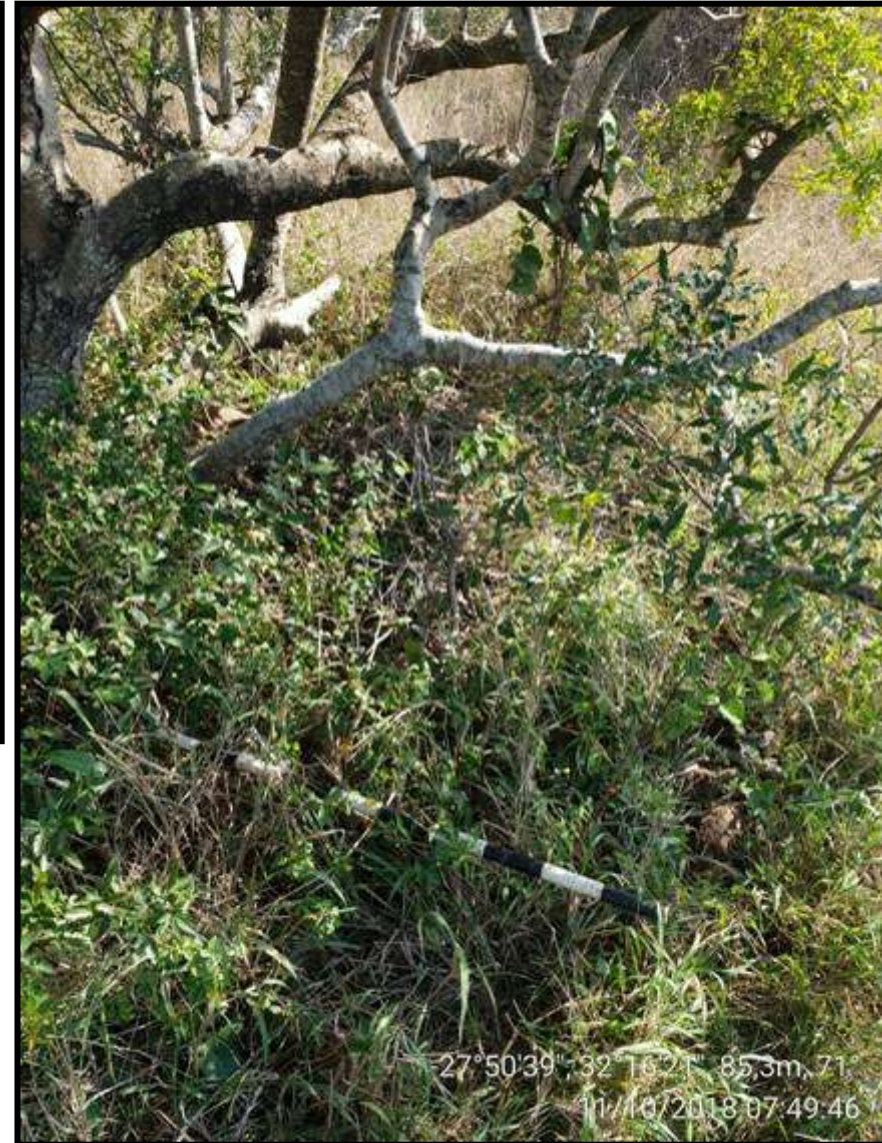


FIG. 77: ARTEFACTS AT PND047



PND048

PND048 is located ~150m southwest of PND047. The site consist of stone walled kraal and a possible grave. The stone walling is that of a bilobial kraal which most is in ruins and/or missing: less than a quarter of each enclosure remains (fig. 788). There is a possible grave attached to the southern and secondary wall (fig. 79). This is a common occurrence in KZN.

Significance: The grave is of high significance, as is the walling associated with the grave. The two must be seen as one feature.

Mitigation: Staff must be made aware of the grave especially since it is near the road and a dam.

Tourism value: Low tourism value, but the site can be viewed from the game viewer.

FIG. 78: STONE WALLING AT PND048



FIG. 79: POSSIBLE GRAVE AT PND048



PND049

PND049 is located 100m north of PND047. The site consists of a large *E. ingens* and a scatter of undecorated pottery (fig. 80). The *E. ingens* were traditionally used to indicate a grave. The pottery was found in the path and consists of a broken single pot. The pottery dates to the LIA or HP. More of the site probably occurs under the vegetation.

Significance: The *E. ingens* is of high significance.

Mitigation: No further mitigation is required, as the site will not be affected.

Tourism value: The *E. ingens* can be viewed as an informative feature.

FIG.80: *E. INGENS* AND A BROKEN POT AT PND049



PND050

PND050 occurs on the Erf Shotton 13810 that was first surveyed in 1923. This means the land was granted shortly thereafter. Buildings are visible on the 1937 aerial photographs (noted as PA9). The site survey did not observe any buildings; however the vegetation was too dense to note if any foundations still occurred. The site consists of two areas of old vehicles, two areas of discarded bottles. The areas of the bottles are probably related to two different domestic areas. A single ruined stone wall was noted in the northern part of the site (fig. 81). The walling is obvious in that the area is very sandy with no rock outcrops. Thus the rocks have been brought into the site. An old storage tank also occurs on the site (fig. 82). The bottles and vehicles require some further discussion. Initial site analyses placed the bottles in the 1960s and 1970s, however further research has dated them to the 1940s and 1950s. This means that the site is a historic site and all artefacts and features are protected by law. The site should be revisited and the bottles catalogued.

FIG. 81: STONE WALL AT PND050

FIG. 82: STORAGE TANK AT PND050



Bottles

The Oros brand was founded in 1889 by Charles Brookes. Although the idea of Oros immediately conjures up the distinctive orange taste, the first flavour in the range was actually Lemos. The bottle in fig. 83 is a Brookes Lemos Oros bottle, with the Oros man still clearly visible on the screw cap. The bottle is dated to the 1950's (<https://www.antiquebottles.co.za>)

No information on the bottle Sunsweet mineral bottle or the company was found (fig. 84). However, the telephone number on the back of the bottle is in a format that dates to the period of 1950's to 1960's.

The amber stumpy beer bottle has no distinguishing marks apart from an embossed 3-digit number at the base and the number 6 on either side and at the top of this number (fig.85). A large percentage of bottles are marked with only a number, or numbers, on the base (or the heel), and in most cases, this makes it difficult, if not impossible, to assign a specific glass manufacturer to a bottle if there is no other information embossed in the glass. Probably in the majority of cases, single digit numbers are mould numbers, merely serving to identify a particular mould, (or section/mould cavity in an automatic bottle manufacturing machine) that was used to form the bottle or other glass item. If a number of identical bottle moulds are being used simultaneously, each mould would be assigned a number. This was done if problems occur with the finished product, it could be easily ascertained which mould or mould section is at fault. Numbers also serve other purposes, depending on the exact container and/or company being discussed. Some numbers are year/date codes. Some numbers (for instance, 3- or 4-digit numbers on the base of many British bottles) are catalog, inventory, style or design numbers assigned to a particular bottle shape. Those numbers would serve to identify a particular bottle style (<https://www.glassbottlemarks.com>). Many of the bottles at PND050 fall into this generic category. The stumpy beer bottle was made from about 1932 onwards.

The 'Food for thirst bottle' is a Sparletta Stoney Ginger Beer bottle (fig. 86). Sparletta is a range of soft drink products manufactured by The Coca-Cola Company in South Africa and Zimbabwe. It was invented by Thomas Cook at his Standerton Coca Cola factory in 1953. He also owned the Nigel Coca Cola factory and the Witbank Coca Cola factory. Fig. 86 (bottom) is an example of the complete bottle.

No information could currently be found about the C&S Minerals bottle (fig. 87). However, we are confident it dates to 1950-1960.

The next survey will revisit this site and catalogue more of the bottles. The bottles can indicate trade patterns, i.e. locally or nationally available and this is in turn related to where it is found. Some bottles were only returnable to a specific town or province, and were thus discarded once out of the province. The bottles can also indicate preferences and general socio-economic status. All of the bottles at PND050, and other sites within the reserve should not be removed unless recorded by an archaeologist.

FIG. 83: OROS BOTTLE AT PND050



FIG.84: SUNSWEET BOTTLE AT PND050



FIG. 85: STUMPY BEER BOTTLE AT PND050



FIG. 86: FOOD FOR THIRST BOTTLE AT PND050



FIG. 87: C&S BOTTLE AT PND050



Grinder

Parts of a grinder were noted at the site (fig. 88). The grinder is a No. 3 Hand grinder or mill, dating to about 1949-1959. These grinders were suited for grinding grain to coffee beans and a coffee pot was found nearby. Bentall & Company operated out of Heybridge, Maldon, England from 1797 to 1984. Fig. 89 shows the original No. 3 grinder and other types of grinders.

FIG. 88: NO. 3 HAND GRINDER AT PND050



FIG. 89: BENTALL & COMPANY GRINDERS



Vehicles

The vintage car with number engine serial no. C8BA C8RT S520 is that of the V8 Ford Flathead engine (fig. 90). This engine was manufactured from 1932 to 1954 and was used in several different makes of Ford vehicles (see the Table 1). The manufacturer is the Ford Motor Company and the engine is also called the Ford L-head V8. Production was from 1932–1953 for the U.S. consumer car-and-truck market, and 1932 - 1954 for the Canadian consumer car-and-truck market.

FIG. 90: FORD FLATHEAD ENGINE



TABLE 2: FORD VEHICLES USING THE FORD FLATHEAD ENGINE⁴

Year	Make	Model	Trim	Engine
1932	Ford	Sedan Delivery	Base	3.3L 3278CC 200Cu. In. 14 GAS L-HEAD Naturally Aspirated
1935	Ford	1/2 Ton Pickup	Base	--
1935	Ford	Model 48	Base	--
1935	Ford	Model 48	Deluxe	--
1935	Ford	Model 48	Standard	--
1935	Ford	Model 50	Pickup	--
1935	Ford	Sedan Delivery	Base	--
1934	Ford	1/2 Ton Pickup	Base	--
1934	Ford	Model 40	Base	--
1934	Ford	Model 40 A	Base	3.3L 3278CC 200Cu. In. 14 GAS L-HEAD Naturally Aspirated
1934	Ford	Model BB	Base	3.3L 3278CC 200Cu. In. 14 GAS L-HEAD Naturally Aspirated
1934	Ford	Sedan Delivery	Base	3.3L 3278CC 200Cu. In. 14 GAS L-HEAD Naturally Aspirated
1933	Ford	1/2 Ton Pickup	Base	--
1933	Ford	Model 40	Base	--
1933	Ford	Model 46	Base	3.3L 3278CC 200Cu. In. 14 GAS L-HEAD Naturally Aspirated
1933	Ford	Model BB	Base	3.3L 3278CC 200Cu. In. 14 GAS L-HEAD Naturally Aspirated
1933	Ford	Sedan Delivery	Base	3.3L 3278CC 200Cu. In. 14 GAS L-HEAD Naturally Aspirated
1932	Ford	1/2 Ton Pickup	Base	--
1932	Ford	Model 18	Base	--

⁴ <https://www.ford-trucks.com>

1932	Ford	Model B	Base	3.3L 3278CC 200Cu. In. 14 GAS L-HEAD Naturally Aspirated
1932	Ford	Model BB	Base	3.3L 3278CC 200Cu. In. 14 GAS L-HEAD Naturally Aspirated
1940	Ford	1/2 Ton Pickup	Base	2.2L 2229CC 136Cu. In. V8 GAS L-HEAD Naturally Aspirated
1939	Ford	1/2 Ton Pickup	Base	2.2L 2229CC 136Cu. In. V8 GAS L-HEAD Naturally Aspirated
1939	Ford	Deluxe	Base	--
1939	Ford	Sedan Delivery	Base	2.2L 2229CC 136Cu. In. V8 GAS L-HEAD Naturally Aspirated
1939	Ford	Standard	Base	2.2L 2229CC 136Cu. In. V8 GAS L-HEAD Naturally Aspirated
1938	Ford	1/2 Ton Pickup	Base	2.2L 2229CC 136Cu. In. V8 GAS L-HEAD Naturally Aspirated
1938	Ford	Model 81 A	Base	--
1938	Ford	Model 81 A	Deluxe	--
1938	Ford	Model 81 A	Standard	--
1938	Ford	Model 82 A	Base	2.2L 2229CC 136Cu. In. V8 GAS L-HEAD Naturally Aspirated
1938	Ford	Model 85	Base	--
1938	Ford	Sedan Delivery	Base	2.2L 2229CC 136Cu. In. V8 GAS L-HEAD Naturally Aspirated
1937	Ford	1/2 Ton Pickup	Base	2.2L 2229CC 136Cu. In. V8 GAS L-HEAD Naturally Aspirated
1937	Ford	Model 74	Base	2.2L 2229CC 136Cu. In. V8 GAS L-HEAD Naturally Aspirated
1937	Ford	Model 78	Base	--
1937	Ford	Sedan Delivery	Base	2.2L 2229CC 136Cu. In. V8 GAS L-HEAD Naturally Aspirated
1936	Ford	1/2 Ton Pickup	Base	--
1936	Ford	Model 67	Pickup	--
1936	Ford	Model 68	Base	--
1936	Ford	Sedan Delivery	Base	--

1947	Ford	1/2 Ton Pickup	Base	3.6L 3622CC 221Cu. In. V8 GAS L-HEAD Naturally Aspirated
1947	Ford	1/2 Ton Pickup	Base	3.7L 3704CC 226Cu. In. 16 GAS L-HEAD Naturally Aspirated
1947	Ford	1/2 Ton Pickup	Base	3.9L 3924CC 239Cu. In. V8 GAS L-HEAD Naturally Aspirated
1946	Ford	1/2 Ton Pickup	Base	--
1946	Ford	1/2 Ton Pickup	Base	3.6L 3622CC 221Cu. In. V8 GAS L-HEAD Naturally Aspirated
1946	Ford	1/2 Ton Pickup	Base	3.7L 3704CC 226Cu. In. 16 GAS L-HEAD Naturally Aspirated
1946	Ford	1/2 Ton Pickup	Base	3.9L 3924CC 239Cu. In. V8 GAS L-HEAD Naturally Aspirated
1945	Ford	1/2 Ton Pickup	1/2 Ton	--
1945	Ford	1/2 Ton Pickup	Base	3.6L 3622CC 221Cu. In. V8 GAS L-HEAD Naturally Aspirated
1945	Ford	1/2 Ton Pickup	Base	3.9L 3924CC 239Cu. In. V8 GAS L-HEAD Naturally Aspirated
1944	Ford	1/2 Ton Pickup	Base	3.6L 3622CC 221Cu. In. V8 GAS L-HEAD Naturally Aspirated
1944	Ford	1/2 Ton Pickup	Base	3.9L 3924CC 239Cu. In. V8 GAS L-HEAD Naturally Aspirated
1943	Ford	1/2 Ton Pickup	Base	3.6L 3622CC 221Cu. In. V8 GAS L-HEAD Naturally Aspirated
1943	Ford	1/2 Ton Pickup	Base	3.9L 3924CC 239Cu. In. V8 GAS L-HEAD Naturally Aspirated
1942	Ford	1/2 Ton Pickup	Base	2.0L 1962CC 120Cu. In. 14 GAS L-HEAD Naturally Aspirated
1942	Ford	1/2 Ton Pickup	Base	3.6L 3622CC 221Cu. In. V8 GAS L-HEAD Naturally Aspirated
1942	Ford	1/2 Ton Pickup	Base	3.7L 3704CC 226Cu. In. 16 GAS L-HEAD Naturally Aspirated
1942	Ford	1/2 Ton Pickup	Base	3.9L 3924CC 239Cu. In. V8 GAS L-HEAD Naturally Aspirated
1941	Ford	1/2 Ton Pickup	Base	--

A Dodge pick-up truck was recorded at PND050. There are serial numbers visible on what has remained of the engine. This is a Dodge pick-up truck, which dates to 1952-1954. Fig. 91 shows the recorded vehicle and its original form.

FIG. 91: DODGE PICK UP TRUCK AT PND050



The artefacts indicate an occupation from the 1930s to the 1960s. Most of the artefacts date from the 1950s onwards

Significance: The site is of high significance as it represents one of the first farms in the area. There is a high density of late to early 20th century artefacts that also reflects trade networks

Mitigation: The site should not be affected in any manner. Whilst the glass bottles may be seen as rubbish, they are protected by heritage legislation and would require a permit to damage, remove or destroy. The rest of the bottles should be recorded during the next survey.

Tourism value: The artefacts tell a story of middle 20th century colonial life in the area, and form part of the reserve's history.

PND051

PND051 is a memorial stone for AS (Fanie) Vermeulen (1916 – 1990 (fig. 93)). There are no known structures at the memorial, nor any known sites. The memorial is beside one of the original roads and a small dam. The memorial is known, but no-one at Phinda knew who put it there nor who Mr Vermeulen was.

Significance: The memorial itself is not significant, as it is not a grave, however, they tend to be treated with respect.

Mitigation: The deeds search of the properties might yield more information regarding Mr Vermeulen, as would discussions with older people of the area.

Tourism value: None.

FIG. 93: MEMORIAL STONE AT PND051



PND052

PND052 is an old piggery that dates to the 1970s and 1980s and occur on the 2002 topographical map. One of the APU rangers worked at the piggery in his youth and was able to provide the dates. The site now consists of the foundation floors of the offices, and a few isolated artefacts (fig. 94). The owner apparently had imported short breed cattle from the Midlands to the area as well. The owner stayed at PND053.

Significance: The foundations etc are of low significance.

Mitigation: No mitigation is required.

Tourism value: none

FIG. 94: FOUNDATIONS AT PND052



PND053

PND053 is probably part of the general Malala Farm complex, but will be treated separately for now. The site consists of two vehicles and two trailers (fig. 95). There are probably more features and artefacts; however, the vegetation was very dense. An International Harvester vehicle was recorded at PND050. The vehicle was identified via the still visible serial number tag. According to the model number on the serial number plaque, it is an International Harvester truck. They were manufactured between 1937 and 1941. Fig. 95 shows the recorded vehicle, while fig. 96 shows an example of the variety of vehicles they manufactured at that stage. No information was available for the trailers; however, it is a logical deduction that they would be associated with the truck. No information could be found regarding the second vehicle (fig. 97).

No houses are associated with PND053 on the 1937 photographs.

Significance: The vehicle engines are in a good condition and might be of historical car significance.

Mitigation: The site needs to be revisited once the vegetation has been burnt. The chassis are in a poor condition.

Tourism value: Limited to historical accounts of the area.

FIG. 95: INTERNATIONAL HARVESTER VEHICLES AT PND053



FIG. 96: INTERNATIONAL HARVESTER ADVERTISEMENT



LIGHT DUTY... *But all Truck*

No, International Light-Duty Trucks are all-truck. They are designed as trucks, engineered as trucks and built as trucks. They're powered by a truck engine—the famous International Green Diamond. They make no compromise with prestige car construction.

A complete line permits International to recommend the best light-duty truck for any job—low for efficiency, best for lowest operating cost, best for longest life.

The very finest, International, is a warranty of truck quality. That name represents more than 40 years of truck engineering and manufacturing experience.

And here's an unusual picture! For the last 15 years more heavy-duty International Trucks have served America's commercial truck transport than any other make.

And here's an unusual service feature—all-truck service supplied by the nation's largest company-owned truck service organization, International Branches, and by International Dealers.

For all-truck performance—International! For all-truck service—International! Branch or Dealer.

Motor Truck Division
INTERNATIONAL HARVESTER COMPANY
 186 North Michigan Avenue Chicago 1, Illinois 

Time in "Harold of Stars" Sunday, 2 p.m.
 Eastern Daylight Time, NBC Network

Other International Harvester Products: FARM POWER AND EQUIPMENT . . . INDUSTRIAL POWER . . . REFRIGERATION



Dump Truck



Multi-Step Delivery



Tractor and Semi-Trailer



Pickup



Panel Truck



Panel Body



School Bus

INTERNATIONAL  TRUCKS

FIG. 97: VEHICLE AT PND053



PND054

PND054 is also known as Malala House. The site occurs on the 2002 topographical map and is known to be the house of the owner of the piggery at PND053. The buildings have been bulldozed, however there are still some bougainvillea plants to indicate a farm house (fig. 98). The vegetation was too dense to note rubbish dumps and other features.

Significance: The site is of low significance.

Mitigation: No mitigation required.

Tourism value: none

FIG. 98: REMAINS OF MALALA HOUSE AT PND054



PND055

PND055 is located at the top of a large hill. The site is a continual open scatter of MSA and LSA stone tools (fig. 99). The stone tools are made on a variety of raw materials and reflect the range of tools associated with these Periods. A few pottery shards were noted as well as stone features. The site was only noted for a later survey as we were only passing through the area.

Significance: the site needs to be fully assessed.

Mitigation: pending assessment

Tourism value: none

FIG. 99: LOCATION OF PND055⁵



⁵ All stones on the ground are stone tools

PND056

PND056 is located halfway down the hill towards the Mhlosinga River. The site is an extensive and dense scatter of artefacts in an area of 110m x 60m (fig. 100). The artefacts include:

- Pottery
 - Red and grey, Brown, orange or black burnish
 - Thin walled
 - Fragment of a possible dagga smoking pipe
- Upper grinding stones
- An ivory(?) button
- Possible graves
- Daga floor fragments
- Brown glass

The site is a homestead of several houses and there will be graves. The site dates to the HP. The site probably dates to the late 19th to early 20th century, but predates 1937. The site will have an archaeological deposit.

Significance: The site is of high significance due to the graves, archaeological deposit and that it represents a 19th century homestead.

Mitigation: The site should not be effected.

Tourism value: None as it is not part of the general tourism road.

FIG. 100: ARTEFACTS FROM PND056



PND057

PND057 was pointed out as a grave by a member of the community who was involved with the land claims of the area. The site might relate to PA43. The site is grave of an Inkosi Ngwane's wife. The grave is a mound of sand without any markings (fig. 101). The informant said the rest of the homestead was to the south and east. The vegetation was too dense to survey for the remains of the homestead. There is an Imphafa tree to the south of the grave (WP777).

Significance: The site is of high significance due to the grave.

Mitigation: The site should be noted as it is beside the main road, which could affect the grave.

Tourism value: None apart from a point of interest.

FIG. 101: LOCATION OF GRAVE AT PND057



PND058

PND058 is a grave identified by a member of the community (fig. 102). The grave is of a male and dates back to ~40 years ago. The grave is near the entrance to privately owned land labelled as Ronald Shay on the 2002 topographical map. The grave is underneath a tree and has no obvious features. According to the informant, the existing road bisected the homestead. This is possible as the 1937 road occurs 130m to the west.

Significance: The grave is of high significance.

Mitigation: The relevant landowners should be informed of the grave as it is beside the main road and entrance to the property.

Tourism value: None.

FIG. 102: GRAVE AT PND058



PND059

PND059 is a ruin noted on the 2002 topographical map that is on the Katema Settlement. The site consists of a single foundation ~5m x 5m in size (fig. 103). There is a sewer pit to the south of the foundation. A single non-Coronation brick was found suggesting a post 1970s date for the building.

Significance: The ruins are of low significance.

Mitigation: No further mitigation is required although there are should be revisited after it has been burnt.

Tourism value: None

FIG. 103: FOUNDATIONS AND BRICK AT PND059



PND060

PND060 is located near a dry stream that eventually feeds into the Mhlosinga River. The site consists of 20th century features and possible LIA/HP graves. The 20th century features are the foundations for a water tank and a levelled stone cairn for a feature related to the water tank (fig. 104). This cairn must not be seen as a grave. This area could relate to PA43 from the 1937 aerial photographs. There are two large *Euphorbia ingens* (pin cushion Euphorbia, *umhlonhlo*) tree near the water tank foundation (fig. 105). These were noted as possible graves, however no stone cairns were observed at the base of the trees.

Significance: The E. Ingens should be treated as possible graves and are thus of high significance.

Mitigation: A 15m buffer should be placed around each E. ingens.

Tourism value: The value is in the oral history and ethnobotanical value.

FIG. 104: LEVELED AREA FOR WATER TANK FEATURE.



FIG. 105: *EUPHORBIA INGENS* AT PND060



PND061

PND061 is thought to be one of the outspan areas used in the early cattle drives. The survey found no evidence of an outspan, nor any artefacts, even if the area appears to have been somewhat cleared of rocks. One pottery shard was noted in the area near the river bank. The aerial photographs indicate that there was no road in this area. Rather, the river crossing, and thus outspan, was ~400m downstream. This needs to be confirmed on the next site visit.

The general PND061 is an area of Cretaceous Beach deposits with ammonites, oysters, etc. (fig. 106). Many of the beach pebbles in turn were used by (mostly) Iron Age farmers as upper grinding stones, and subsequently removed from open surfaces such as these. There is a possible grave, or sunken stone cairn at WP663. This feature is a oval shaped semi-sunken circle of stones, amongst loose stones (fig. 107)

More significantly, the area is also evidence of a volcanic eruption 120 – 130 million years ago, and apparently the only one of its kind in Southern Africa. This area, and the rest of Bumbeni Mountain, consists of lava flows, volcanic ash and lava bombs (fig.'s 108 - 109). This geological formation is currently under research.

Significance: The area is of very high significance in terms of geology

Mitigation: The area should not be affected unless under consultation with geologists and palaeontologists

Tourism value: High.

FIG. 106: CRETACEOUS BEACH AT PND061



FIG. 107: STONE CAIRN AT PND061



FIG. 108: VOLCANIC DEPOSITS AT PND061



FIG. 109: VOLCANIC LAVA AT PND061



PND062

PND062 falls under the category of Living Heritage. The site is an East African mahogany tree that was planted a few decades ago (fig. 110). The nearest examples of these trees are in Mozambique. They tend to be used for furniture but in this case, it is probably as a marker. The current owners state that the tree was already there when they bought the lodge. The tree is less than 60 years in age and has no names engraved to give it a historical association. The tree is a living heritage since someone obviously brought it from outside of KZN as a memory to a place or event.

Significance: The tree is of low significance.

Mitigation: No mitigation is required, although technically it is an alien species.

Tourism value: None

FIG. 110: EAST AFRICAN MAHOGANY AT PND062



PND063

PND063 is the general location for human graves identified by the community. It is commonly referred to as the Bumbeni Graves. It could be related to PA12 from the aerial photographs. No specific graves could be located; however, these graves are probably sand mounds that have now levelled. I recorded one old *Mphafa* tree (fig. 111) and the fragmentary remains of one pot. There are several cleared areas in the general area suggesting there could have been a settlement.

Significance: The general area is of high significance due to the (unknown location of) human graves.

Mitigation: No mitigation is required,

Tourism value: None.

FIG. 111: MPHAFA TREE AT PND063



PND064 (Borgomaro)

PND064 refers to the old farmhouse Borgomaro. I could not locate the original SG map, but it does occur on the Ingagulu SG map. The farm thus dates to 1923 at least. The buildings, and the road to them, are visible on the 1937 map. The farm buildings are located on a small rocky hill near the Eskom servitude. Only the floor foundations, front steps and part of one wall remain (fig. 112). The rest of the building has collapsed, but was not bulldozed. The foundations of the main house are ~10m x 10m. In front of the building is a two-tiered garden bed. To the southeast are two areas that could have had buildings, as they are cleared of rocks. There are several features around the hill related to the farm, e.g. furrows leading from, the house, cleared areas. In addition to this, several diagnostic artefacts were noted. The vegetation was dense in most areas resulting in poor ground visibility. We could not locate the main rubbish dump.

Several glass bottle (fragments), iron, stonewear and pottery sherds were noted on the surface (fig. 113). Two bottles had diagnostic features. J. Pascal is an unknown clear glass medicinal bottle. "World of others" is an unknown medicinal bottle that could be a Milk of Magnesia dating to 1930. Two other bottles are probably a Lemos and cobalt blue medicinal bottle.

Significance: The site is of high significance as the main structure remains, even if it is just the foundation. This is the only one of its type in the reserve, as the rest were demolished. The area will have an archaeological deposit and rubbish dumps that will be protected by heritage legislation.

Mitigation: The site, and a 50m radius around it, should not be affected without further assessment and/or excavations.

Tourism value: The site is off the main roads and is not viable for viewing.

FIG. 112: FOUNDATIONS AT PND064



FIG. 113: ARTEFACTS FROM PND064



PND065

PND065 is the location of an old water drill rig (fig. 114). The construction is of wrought iron and wood design and is fairly well preserved. There are numbers on the various parts of the drill rig and what appears to be the manufacturer's name and a patent number on the upper crossbeam. It is partly legible, but no such patent number exists anywhere in historical patent records. It appears to be an engine powered rig, however the engine is missing. All four wheels still occur and it indicates it was not a flat-bed truck operated machine. The four metal pegs used to stabilise the rig are still in the ground. Many of the pulleys and cogs are still in good condition.

We did an extensive internet search and have not found more information on this machinery. The vegetation around the rig did not yield good photos either. The rig probably dates to the 1930s – 1940s.

Significance: The lack of information for this rig indicates it could be rare and thus of high significance. It would be protected by heritage legislation in terms of a historical artefact and industrial archaeology.

Mitigation: The vegetation growing around the rig should be cleared to minimize further deterioration. The rig needs to be revisited and more detailed notes taken with the aim of getting a manufacturer's mark. If possible, the rig should be moved to a storage area where it can be removed from the natural elements. This will probably require permission from Amafa KZN.

Tourism value: None apart from historical value.

FIG. 114: WATER DRILL RIG AT PND065



PND066

PND066 is the original farm Coeeyane, now referred to as Sungulwane. The farm occurs on the 1937 aerial photographs and well as the 1943 topographical map. The entire area has been replaced by buildings that are more recent as part of a lodge.

The aerial photograph has Coeeyane as a single farmhouse similar to Borgomaro, with two agricultural fields to the east. The 1943 topographical map has the main road, or track, south of the existing road. No photos were taken since only the new buildings were visible.

Significance: The site is of no significance since it has been demolished.

Mitigation: No mitigation is possible. However, if historical dumps are noted then they need to be reported.

Tourism value: none

PND067

PND067 is a settlement noted on the 1943 topographical map on the Erf Konka. The vegetation in the area was very dense; however several pottery shards, grinding stones and stone cairns were noted (fig. 115). Furthermore a *Mncaka* tree had been used for *muthi*, as there were old cutmarks on the tree to remove the bark. The cairns could be human graves.

A similar house on the topographical map was labelled as T3. I could not locate this site.

Significance: The possible human graves make the area of high significance.

Mitigation: The area needs to be resurveyed after it has been burnt.

Tourism value: It can be used as a point of historical interest

FIG. 115: MUTHI TREE AND GENERAL AREA OF PND067



PND068

PND068 is an extensive scatter of ESA and MSA tools that have been exposed by an erosion gully (fig. 116). The scatter probably extends over the entire hill and is ~30cm below the surface. The MSA scatter consisted of the standard MSA tools located on the reserve. The ESA consisted of a hand axe, choppers, and possible ESA-MSA transition tools.

Significance: The artefacts are in a secondary context and are part of the general 'Phinda Reserve' stone tool scatter.

Mitigation: No mitigation is required, although the various scatters should be sample analysed at some stage.

Tourism value: None.

FIG. 116: STONE TOOLS AT PND068



PND069

PND069 is located on the top of a hill overlooking the Mhlosinga River. The site consists of a single stone cairn in an area relatively cleared of large boulders (fig. 117). No other LIA/HP artefacts were noted however, this was largely due to the dense vegetation. The cairn may be a human grave or some other feature, e.g. a small *isivivane*. MSA and LSA artefacts occur to the north of this feature.

Significance: The cairn should be treated as a grave until proven otherwise, and is thus of high significance.

Mitigation: No mitigation is currently required.

Tourism value: None

FIG. 117: STONE CAIRN AT PND069



PND070

PND070 is the remains of a more recent building and artefacts that possibly dates to the 1960s or 1979s due to the asbestos type of roofing. However, there is a possible building on the 1937 aerial photograph. The vegetation was too dense to make a proper assessment of the general area. The site is noticeable due to the large alien cactus (fig. 118).

Significance: The site is of low significance.

Mitigation: No mitigation is required.

Tourism value: None

FIG. 118: CACTUS AT PND070



PND071 (HARROGATE)

Harrogate is located in the southern part of the nature reserve. It was one of the first farms in the area, having been surveyed in 1921. Only the base of two structures and a dipping tank remain from the farm; however, the grass was dense during the first survey. During the 2019 survey the grass was more sparse and yielded better results. The main farmhouse was located at the top of the hill neat the current observation tower.

Undecorated fragments of a ceramic plate and blue medicinal bottle was noted on the top of the hill (fig. 119). A water trough built with Coronation bricks, is located ~200m NNE of the top of the hill (fig. 120). About 50m downhill (northeast direction) is an area with the remains of a water tank, parts of a hand pump or grinder, Coronation bricks, and cement with indentations from a corrugated iron roof.

A near intact pump was found near a water tank (fig. 121). The pump is a Massey-Harris stationary engine, that was most likely used to power a water pump. It was manufactured between 1891 and 1953. The company was founded in 1847 in Newcastle, Ontario, Canada, by Massey, as the Newcastle Foundry and Machine Manufactory. The company originally made some of the world's first mechanical threshers, by assembling parts from the United States. It later designed and built its own equipment. The eldest son renamed the enterprise the Massey Manufacturing Co. and in 1879 moved it to Toronto. Massey expanded further and began to sell its products internationally. In 1891, Massey Manufacturing merged with A. Harris, Son & Co. Ltd., to become Massey-Harris Limited and became the largest agricultural equipment maker in the British Empire. In 1953, Massey-Harris merged with the Ferguson Company to become Massey-Harris-Ferguson, before finally taking on its current name, Massey-Ferguson, in 1958 (<https://livinghistoryfarm.org>; <https://www.farmcollector.com/company-history/massey-harris-history>)

Coronation bricks were manufactured between 1916 and 1977. Coronation Brickworks had its origins in 1898 when Robert Storm discovered clay deposits on Clairwood Flats, Durban and the Storm brothers establish their first brick making plant. In 1902, they

established The Storm Brother Brick Works. In 1916, the Storm Brothers amalgamated with the Greenwood Park Brick Company and they became The Coronation Brick and Tile Company Limited. In 1917, they diversified into the manufacture of roof and floor tiles. In 1977 Coronation Brick and Tile was renamed to Corobrik and the Corobrik brand was launched (<https://www.corobrik.co.za/heritage>). The Coronation bricks found at Phinda thus date between 1916 and 1977. However, most are associated with the early farm buildings (fig. 122).

Some LIA pottery occurs on the site, in addition to upper grinding stones. Most importantly was a piece of slag found on the top of the hill. Slag is a product of iron smelting/ The smelting probably occurred elsewhere and the slag was brought up to the hill for smithing.

Significance: This is possible one of the first farms in the area, and thus the material items that were brought in would be of historical significance.

Mitigation: The area should be reassessed after the grass has been burnt, for foundations and rubbish pits. The artefacts from this site should be compared with those from PND064 (Borgomaro)

Tourism value: none

FIG. 119: CERAMIC PLATE AND MEDICINAL BOTTLE FROM PND071



FIG. 120: WATER TROUGH AND HOUSE FLOOR AT PND071

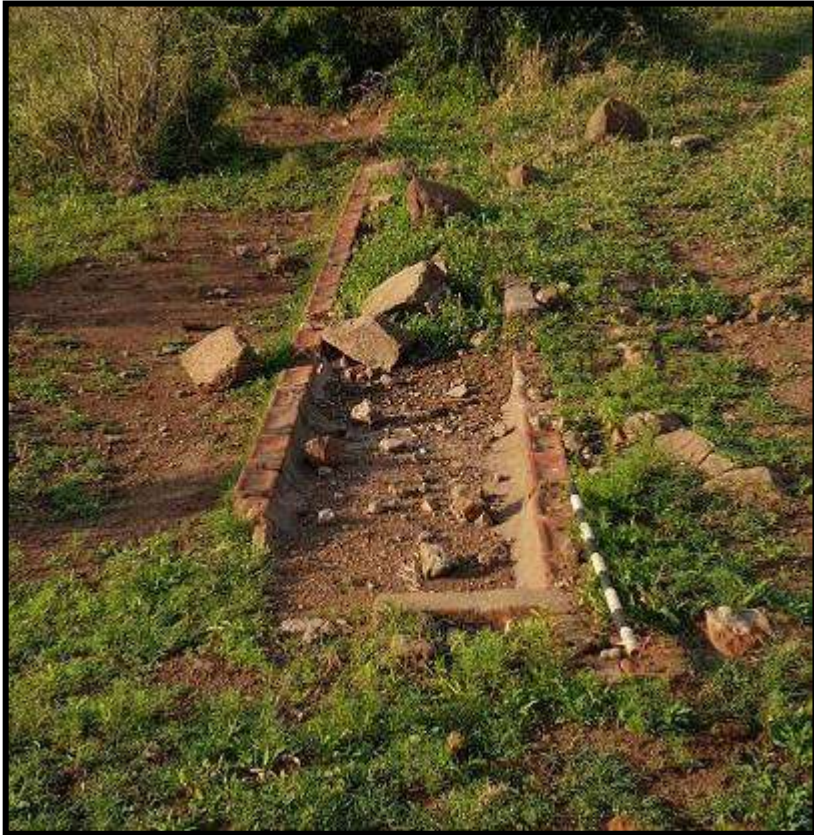


FIG. 121: MASSEY-HARRIS PUMP AT PND071⁶



⁶ An example of a MH Type 2 engine with all its parts

FIG.122: CORONATION BRICK, CORRUGATED IRON IMPRESSION, & SLAG AT PND071



PND072

PND072 is located on the top of a large hill. Much of the site was covered in long grass, but it extended for at least 220m x 150m in size. Many of the hills in the reserve have singular 20th century artefacts. These are themselves important as they give a general idea of periods and preferences of the farmers and their staff. PND072 has glass bottle fragment (fig. 123). The base is a clear glass, historical bottle. There is an embossed triangle with the letters PGW inside and the letter 8 at each edge of the triangle. GW probably stands for glass works, and the P could be a several options. If the bottle was locally produced it could refer to Point or Phoenix, but if it is an imported bottle there are almost unlimited possibilities. The bottle is clearly machine-made, so the eight would be a mould number. The first bottle-making machines were properly in use by around 1903, so we are dealing with something dating later than that period.

PND072 has an extensive area covered by artefacts dating to the HP. There are fragments of a Zulu *ikhamba* (beer drinking pot), as well as a range of thin-walled pottery (fig.124). There are several upper grinding stones in the cleared area. Potential pits were noted in the cleared areas (fig. 125). These are holes in the ground, which would be lined, and grain would be stored, or it might be full of pottery shards. The latter pits have a broken lower grinding stone on the surface. The site will probably have human graves.

Significance: The site is of medium significance unless human remains are found, where it becomes of high significance.

Mitigation: The area should be left undisturbed otherwise mapping and possible excavations will be required. The existing tracks should not be expanded.

Tourism value: None unless excavated as a site museum

FIG. 123: BOTTLE BASE AT PND072



FIG. 124: IKHAMBAMBA FRAGMENT AT PND072



FIG. 125: POSSIBLE PIT AT PND072



PND073

PND073 is located on the large hill 350m to the east of PND072. The site consists of many pottery shards and grinding stones scattered over a ~300m radius. Most of the artefacts are on the western side of the hill. The top of the hill has significantly fewer artefacts. The eastern side had black rhino and was not surveyed. The site was densely vegetated in most areas, but there were several cleared areas. The site was revisited in 2019. The area around the oyster fragments had a very high concentration of artefacts, and represents a settlement.

The pottery dates to the LIA/HP and varies in shape, thickness and colour. One broken maize lower grinding stone was noted on the surface. A single fresh water mussel was observed in one area. The mussel is probably *Chambardia wahlbergi* (Krauss, 1848) (I Muratov pers. comm. from KZN Museum, Pietermaritzburg). These mussels are edible, and if collected for food would form a shell midden. However only one fragment was noted and it may have been used as an adornment. The mussels are found along the Munywana River, especially near the dam wall.

Fig. 126 shows some of the artefacts

Significance: The site is of medium significance due to its size; however, it will need to be resurveyed again once the vegetation is less dense.

Mitigation: Pending reassessment.

Tourism value: None

FIG. 126: AT PND073



PND074

PND074 occurs near the top of a hill and covers an area of 250m in radius (fig. 127). The site is an extensive scatter of artefacts, often in concentrations. There are at least ten different pottery shard concentrations, and more than ten types of pots. There are several upper grinding stones and a few lower grinding stones on the surface. More importantly, there are several circular stone features, mostly underneath bushes. Some of these appear to be human graves, while others are probably granary floors. The site dates to the LIA or HP and has an archaeological deposit.

Significance: PND074 is of high significance due to the high concentration of pottery, and features.

Mitigation: The site should be revisited after the area has been burnt with the aim of recording as many of the features when ground visibility is better.

Tourism value: none unless excavated

FIG. 127: AT PND074



PND075

PND075 is a small site located ~700m downhill and southeast of PND074. The site consists of a small scatter of pottery shards (fig. 128). More of the site may occur under the dense vegetation.

Significance: To be re-assessed.

Mitigation: To be re-assessed.

Tourism value: None

FIG. 128: AT PND075



PND076

PND076 is located on the hill to the northeast of Harrogate. Artefacts are scattered over a 100m radius, however the main concentration is in a 50m radius. PND075 has MSA and LSA tools on the surface. The site has a very high concentration of pottery shards in a small area that appears to have an archaeological deposit. The shards are from various pots (fig. 129).

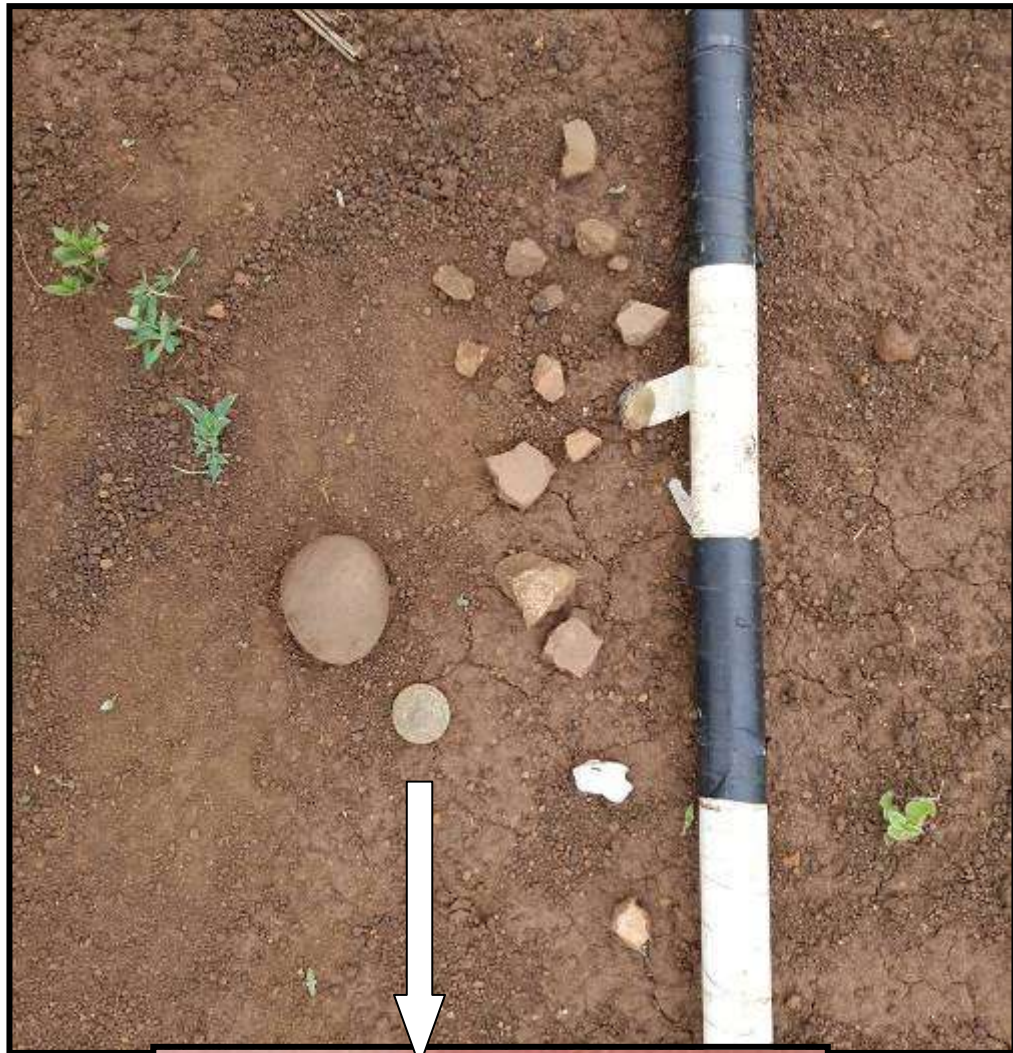
The most intriguing find was a button (fig. 129). This early brass police service button is 22mm across and has a shank (loop) at the back. The front has what is widely referred to as the Queen Victoria's Crown on it and the words Devon Constabulary. Devon Constabulary operated between 1856-1966. The crown is not strictly Queen Victoria's crown, it was used by most of the monarchs before her, but it is associated with her more than anyone else. Its' proper name is the St. Edward's Crown. The Queen Victoria's Crown was used throughout the extent of her reign, from June 20, 1837 until her death on January 22, 1901. The backstamp of the button reads Hebbert & Co. London. Hebbert & Co were military outfitters from the mid 19th century, turning to police and railway outfitters later on in the century (<https://www.devon-cornwall.police.uk;>). If all this information is taken in consideration, the button dates between 1890-1901. How the button from Devon ended up on a farm in Zululand, that we will never know for sure. We do know that during the second Anglo Boer War (1899-1902) there were several different Devonshire Regiments stationed in Natal. The closest being in St. Lucia. We also know that the British maintained an extensive system of espionage by Zulus throughout Natal, which by 1901 had expanded into the valleys of the Mkuze and Pongola rivers and also the Nongoma and Hluhluwe areas. In addition to this, the Zululand Native Police (Nonqai, Nongqai or Nonqayi) were stationed up to Hlabisa and Ingwavuma. (<https://www.samilitaryhistory.org/vol081av.html>). The Nonqai did however have their own uniform. The occurrence of this button at the site is very intriguing and excavations might yield more information.

Significance: The site is of high significance due to the concentration of artefacts and the button.

Mitigation: The site should be revisited when the area has been burnt.

Tourism value: The site has oral history value

FIG. 129: ARTEFACTS AT PND076



PND077

PND077 is located near the southern fence border. The site is an ephemeral scatter of MSA stone tools, LIA/HP pottery and upper grinding stones over a 200m radius (fig. 130). There is one stone feature that is a 1/3 of a circle. The stone tools include a MSA point that has been modified in the LSA to become an adze (fig. 131).

Significance: The site is of low significance.

Mitigation: No further mitigation is required

Tourism value: None

FIG. 130: ADZE AT PND077



FIG. 131: STONE FEATURE AND LOWER GRINDING STONE AT PND077



PND078

PND078 occurs ~100m southeast of PND0787. The site is an ephemerals scatter of pottery on the surface. The pottery dates to the LIA or HP. There is a small stone cairn that appears to be the grave of a juvenile (fig. 132). The grave is ~1.3m x 1m in size.

Significance: The grave is of high significance.

Mitigation: a 15m buffer must remain around the grave.

Tourism value: None

FIG. 132: JUVENILE GRAVE AT PND078



PND079

PND079 is located near the Sodwana Road at the southern gate. The site consists of a large *E. ingens* that could indicate a grave (fig. 133). Unfortunately, the vegetation was too dense to make an accurate assessment.

Significance: The *E. ingens* should be treated as a grave until proven otherwise.

Mitigation: The area needs to be assessed after it has been burnt or at the end of winter.

Tourism value: the site could have oral history value.

FIG. 133: *E.INGENS* AT PND 079



PND080 (SUTTON)

PND0870 is the farm Sutton and relates to PA34 on the aerial photographs. The farm dates back to 1923 and is visible on the 1937 aerial photographs. The farm buildings are located on the top of a hill overlooking several smaller hills. The 1937 photographs indicate that the main road passed in front of Sutton while a smaller road went towards Harrogate, passing through PND072. Another main road went from Sutton to Borgomaro. Part of the original farmhouse still occurs in the fenced off complex (fig. 134). I was interested in finding the rubbish dumps of the original farm, but to no avail. More recent rubbish dumps from the 1980s onwards were located. Between the main houses and the soccer field is a large *Erythrina spp.* (fig. 135). These trees are also used to demarcate graves in KwaZulu-Natal. Part of Sutton's original buildings occur to the north and were part of PND042

Significance: The original building is of high significance as is one of the few remaining original buildings. The main house has been modified to a large degree.

Mitigation: The original farmhouse is protected since it is older than 60 years in age.

Tourism value: Low as it is not the original form.

FIG. 134: SUTTON FARM HOUSE



FIG. 135: ERYTHRINA SPP. AT SUTTON FARM HOUSE



PND081

PND081 is located ~12m east of the main road (fig. 136). The community informant who noted the other graves identified the site. The grave is apparently that of a white male who was buried about 60 years ago. There are no demarcations for the grave and they occur underneath trees. No further information was known about the grave.

Significance: The area is of high significance due to the grave.

Mitigation: No mitigation is required; however, care should be taken when the road is upgraded or gravelled.

Tourism value: None, apart from a point of interest.

FIG. 136: UNMARKED GRAVE AT PND081



PND082

PND08 is located at Bumbeni Lodge, and is the original Bumbeni house. The 1937 aerial photograph places the original Bumbeni House on the outskirts of the current location. The photograph also indicates a perimeter wall on the west. The old road passed in front of the original house that has been mostly demolished. There are areas that have been cleared of rocks and levelled around the current house, and outside of the existing perimeter fence. Moreover, the dense bushy area in front of the existing house has walling. I tried to survey the area outside of the perimeter fence but the sickle bush hampered a proper survey.

A single historical glass bottle was found at Bumbeni house. The bottle is the Old Ginger Beer from Suncrush Ltd. (fig. 137). Suncrush Ltd operated as a private company between 1933 and 1936 whereafter it was converted to a public company, bottling and marketing Coca-Cola products. Thus, this bottle dates to 1933-1936 (Beerman's Financial Yearbook of Southern Africa, 1971).

A single low stonewall was noted inside the current house leading towards the perimeter fence (fig. 138)

Significance: The area is of low significance as it has been mostly demolished. The original stone walling is protected by heritage legislation.

Mitigation: No mitigation is required, however the area should be resurveyed after it has been burnt. There are several indentations outside of the existing perimeter fence that could indicate old rubbish dumps.

Tourism value: None

FIG. 137: SUNCRUSH LTD GINGER BEER BOTTLE AT PND082



FIG. 138: STONE WALLING AT PND082



PND083

PND083 is located on the west of the main road and is the Lo Ma Ro buildings. The house does not show up on the 1937 map and only occurs on the 2002 topographical map as buildings in use. The buildings seem to have been a general store in the front, with a house and farm buildings behind it. More building foundations occur westwards and one area appears to have been a storage area. The buildings appear to be post-1970 buildings, if not more recent, and the artefacts that were observed suggest the latter.

Figures 139 - 140 and show some of these artefacts and buildings.

Significance: The area is of low significance.

Mitigation: No mitigation is required.

Tourism value: None

FIG. 139: FURNITURE POLISH BOTTLE AT PND083



FIG. 140: BUILDINGS AT LA MA RO



PND084

PND08 is located near the top of a high hill overlooking the Umsunduze River. The site occurs on both the 1937 and 1943 maps, as well as the SG maps of 1923. On the maps, it is referred to as Ingagalu. The maps indicate Ingagalu was not on the top of the hill but slightly downhill from it. It is in this lower area where several artefacts and features were located. However, I believe some of the buildings on the top of the hill might relate to the original Ingagalu as well and it might form part of an expanding farming complex. As usual, the vegetation was extremely dense in this area limiting the survey.

The original Ingagalu now consists of a few foundations, an old Peugeot 404 some stone walling and an old *muthi* tree. The buildings on the upper part of the hill consist of a possible original shed, now converted to a house, and a cattle-loading ramp.

The Peugeot 404 dates to the 1960's. It appears to have rolled over the road and left where it landed (fig. 141). The foundations occur in this area, but the vegetation was too dense to yield proper photographs. The Peugeot indicates maximum age of the accident, and not the age of the site.

Uphill from the foundations and the Peugeot, is a stone walled feature, a rubbish dump of burnt material and a *muthi* tree (fig. 142).

The existing Ingagalu buildings are a mix of old and new buildings. The older buildings occur on the northern part of the farm complex (fig. 143). These consist of the original barn and side buildings as well as the cattle-loading ramp.

The artefacts and buildings from Ingagalu date from 1940s to the present.

Significance: The area is of high significance due to the grave.

Mitigation: No mitigation is required, but the area should be resurveyed after it has been burnt.

Tourism value: None, apart from a point of interest.

FIG. 141: PEUGOT 404 AT INGAGALU AND ORIGINAL



FIG. 142: STONE WALLED FEATURE, ASH MIDDEN AND *MUTHI* TREE AT PND084



FIG. 143: BUILDINGS AT INGAGALU (PND084)



PND085

PND085 was called WP621, however, several more features were noted in the 2019 after the area was burnt. PND085 is located near the top of a hill and appears to be the base of an old water container. The foundations are not made of concrete but appear to be cement and local stones (fig. 144). There are several structures like this around the top and northern side of this hill. These are visible on the 1937 aerial photographs (marked as PA32).

Significance: The feature is of low significance

Mitigation: No further mitigation is required.

Tourism value: None

FIG. 144: BASE OF WATER TOWER AT PND085



WP661

WP661 is a more recent water trough near the base of a hill (fig. 145). While there are two Coronation bricks nearby, this feature is made from more recent bricks. It was recorded as an example of modern troughs.

Significance: The feature is of low significance

Mitigation: No further mitigation is required.

Tourism value: None

FIG. 145: WATER TROUGH AT WP661



PND086

PND086 is located near the runway and offices (fig. 146). The site consists of scatters of artefacts over a ~60m radius. The area around the two trees (fig. 146) has a very high concentration of pottery shards on the surface (fig. 147), as well as a few upper grinding stones. The concrete slabs near the one bush are not part of the site. We could not locate human graves; however, the vegetation was too dense further down the hill. The site probably has an archaeological deposit.

Significance: feature is of low significance

Mitigation: No further mitigation is required.

Tourism value: None

FIG. 146: LOCATION OF PND096



FIG. 147: ARTEFACTS AT PNDO86



PND087

PND087 consists of small cleared areas halfway up a rock-strewn hill (fig. 148). Some of the cleared areas are a result of large trees moving the rocks and then dying, while others are a result of human activity. The presence of pottery shards and upper/lower grinding stones indicates human activity.

Apart from a small blue medicinal bottle near the base of the hill, the area below the road has several pottery shards and three stone cairns. These cairns are in cleared areas and could be human graves (fig. 149). The pottery dates to the LIA or HP.

Significance: The site is of high significance due to potential graves

Mitigation: No further mitigation is required.

Tourism value: None, although the site can be noted.

FIG. 148: LOCATION OF PND087



FIG. 149: STONE CAIRNS AT PND087



PND088

PND088 is located on the top of the hill above PND087. The site consists of a single stone terrace with a few pottery shards on the slope (fig. 150). There is a cleared area below but no artefacts or features were visible. The area appears to be the location of a house or three. The pottery dates to the LIA or HP.

Significance: The site is of low significance

Mitigation: No further mitigation is required.

Tourism value: None, except to show how terracing was made/used.

FIG. 150: TERRACE AT PND088



PND089

PND089 is located on the western side of the hill of PND087 and PND088. The site consists of a possible terrace and three stone cairns (fig. 151). Pottery shards and grinding stones occur on the slope of the hill. The stone cairns appear to be human graves (fig. 152). The site probably dates to the LIA or HP.

Significance: feature is of low significance

Mitigation: No further mitigation is required.

Tourism value: None

FIG. 151: VIEW OF PND089

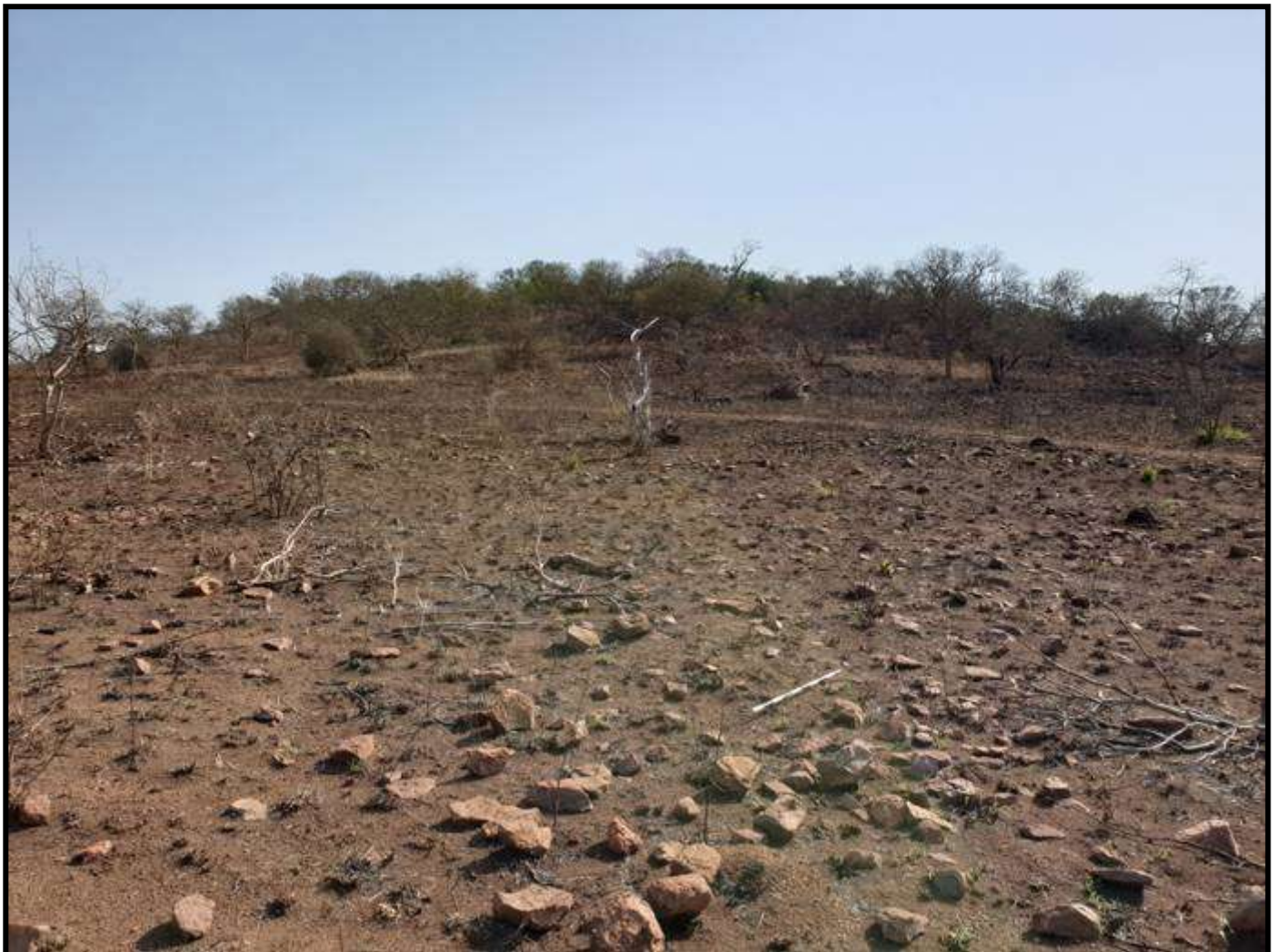


FIG. 152: STONE CAIRNS AT PND089



PND090

PND090 is located on a hill near Sutton Dam. The entire hill consists of a scatter of stone tools, concentrations of pottery shards, and other artefacts over a 300m radius. The main concentration of LIA/HP artefacts occur near the middle/top of the hill. This area is probably part of an old settlement. The main area probably has an archaeological deposit.

The artefacts and features are shown in fig. 153 and include:

- stone cairns that could be a human graves
- semi circular walling
- areas cleared of stones
- a bronze military badge with “E <royal crown> R”
 - Royal Australian Engineers (ER =Engineer Regiment) Anglo-Boer War. It is not “Elizabeth Regina” as there is no II on the crown
 - Colonial troops, (Australian, Canadian, New Zealand) were stationed along the Swaziland and Mozambique borders, all the way to what is today known as the Kruger Park. This was done to keep the Boers out of these areas.
 - The military were known to enlist local people. Local people were often given jackets, etc to use and keep. This would then be similar to the police button found at PND076
 - This badge was found on a grave and could be part of the grave goods, or an accidental “drop”
- An unfinished bored stone
- An array of MSA and LSA tools

Significance: The area is of medium to high significance due to the isolated artefacts and potential graves

Mitigation: No further mitigation is required.

Tourism value: None

FIG. 153: CAIRNS BORED STONE, BRONZE BUCKLE FROM pnd090



PND091

PND091 occurs ~250m northwest of PND090 and is part of the same general hill. Apart from the general stone tools and pottery shards, the main part of the site consists of two stone cairns 50m apart (fig. 154). The cairns are probably human graves, dating to the LIA or HP.

Significance: The possible graves are of high significance

Mitigation: No further mitigation is required.

Tourism value: None

FIG. 154: POSSIBLE GRAVES AT PND091



PND092

PND092 is a large hill ~500m in diameter to the northwest of PND092 (fig. 155). MSA and LSA tools are found all over the hill. There are two main concentrations of LIA/HP pottery shards and/or artefacts, on the west and east side of the hill. The west side has only pottery, while the eastern side has stone cairns, grinding stones and pottery concentrations (fig. 156). These probably represent different settlements on the hill at different periods.

Significance: The cairns are of high significance as they could be graves.

Mitigation: No further mitigation is required.

Tourism value: None

FIG. 155: GENERAL VIEW OF PND092



FIG. 156: CAIRNS AND GRINDONG STONES AT PND092



PND093

PND093 is a large hill ~500m x 350m in size and bisected by the original road to Coeeyane as seen in fig.'s 29 and 31. The main road had literally, over time, pushed all the artefacts to the side of the road (fig. 157). The road appears to have been widened. This suggests that most of the occupation was along the top of the hill. The entire hill consists of concentrations of LIA/HP artefacts that would indicate individual settlements. The stone tools are more varied than the other hills (fig. 158). One stone tool is a 'unifacial point with a basal tang' on quartz. It dates to c. 3000 years ago and is apparently rare (Deacon 1982).

One stone cairn had two concrete fragments on it. This could be accidental and a result of the road, or not a grave. However, it should be treated as a grave.

Significance: The site is of high significance due to the graves and density of artefacts

Mitigation: No further mitigation is required.

Tourism value: None

FIG. 157: VIEW OF THE ORIGINAL ROAD



FIG. 158; STONE TOOLS FROM PND093

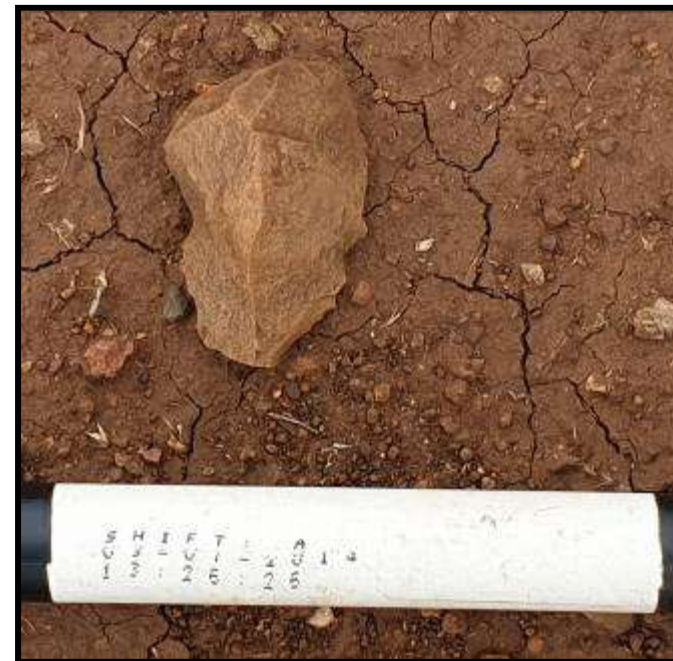
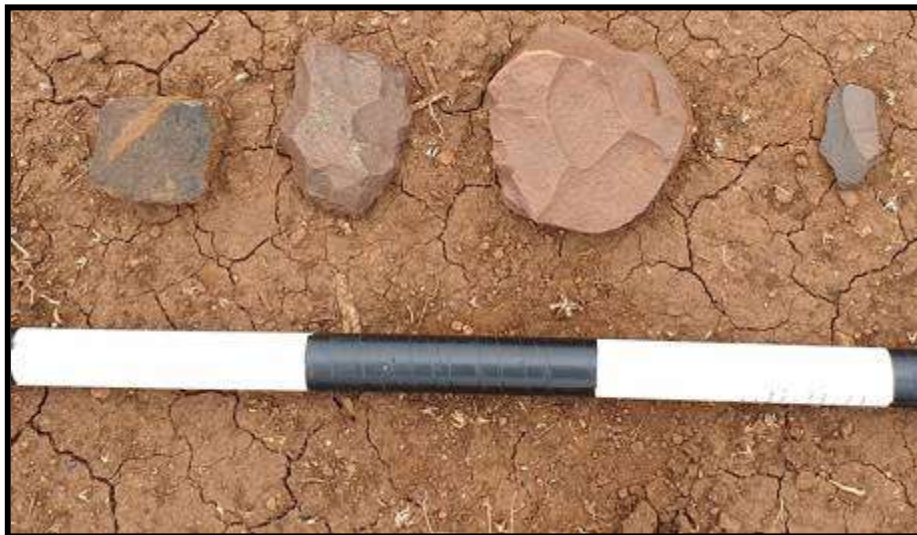


FIG. 159: STONE CAIRNS & LOWER GRINDING STONE AT PND093



PND094

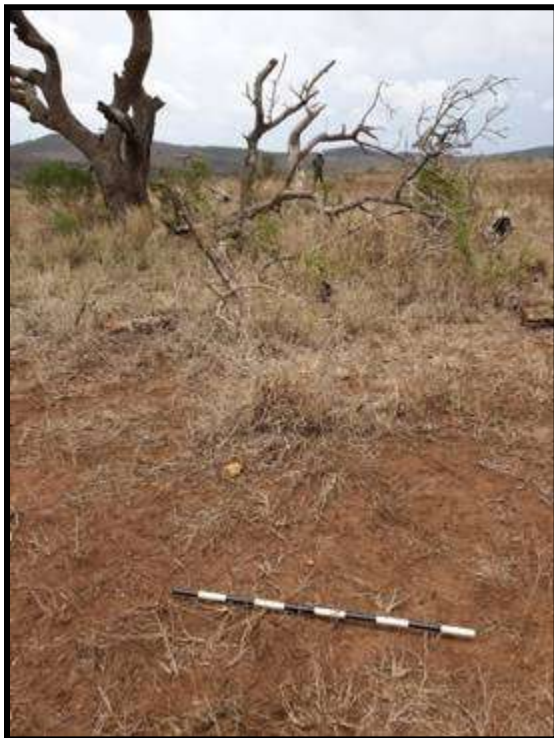
PND094 is about 300m northeast of PND095 but on the same hill. The site consist of a two stone cairns (or graves), a concentration of pottery and an upper and lower grinding stone next to each other (fig. 160). The site dates to the LIA/HP

Significance: The site is of high significance due to the graves.

Mitigation: No further mitigation is required.

Tourism value: None

FIG. 160: STONE CAIRNS, POTTERY AND GRINDING STONES AT PND093



PND095

PND095 is located to the east and downhill of Sutton dam. The area is a general collection of various stone tools, cairns and historical foundations. There are also isolated bottle fragments near the river.

The historical foundation is a square structure on a raised mound. The materials used are similar to those used at PND085 (fig. 161). There are three cairns in the general area; however, no pottery was noted, and thus they could be agricultural in nature (fig. 162). An isolated hand axe and cleaver was observed on the hill.

Significance: The area is of low significance

Mitigation: No further mitigation is required.

Tourism value: None

FIG. 161: HISTORICAL FOUNDATIONS AT PND005



FIG. 162: STONE CAIRNS AT PNDO05



ISOLATED FINDS

Throughout the survey, isolated artefacts would be observed. These are chance finds, and tend to be artefacts that were dropped in the past, or part of much older sites that have disappeared. This is more common in the northern more sandy parts of the reserve. One such find was a possible armband made from shale that was noted on the side of the road (fig. 163). The armband was broken some time ago (visible on the patina on the broken edges), and then more recently accidentally kicked by an elephant (visible in the footprints around the artefact). Smaller shale rings were used as weights for hunting nets. The survey in the northern parts consisted of walking existing roads, with slight deviations into the open bush off the roads, to locate artefacts or possible sites. Most of the archaeological sites would have filtered below the surface in these sandy soils and thus become invisible. The artefacts all gather as a lag deposit 1m – 2m below the surface on the black clay horizons.. One such artefact was a sorghum lower grinding stone (fig. 164). These grinding stones are dated to before 1550AD, when maize was introduced to KwaZulu-Natal by the Portuguese. Maize eventually took over sorghum as the main crop, and it requires a different type of lower grinding stone.

FIG. 163: SMOOTHED SHALE ARM BAND



FIG. 164: SORGHUM LOWER GRINDING STONE



PND01 was revisited as the area had been burnt recently. An array of stone tools was noted in the old track and below the talus slope. These tools were photographed on site for a general time line photo, and then returned to their location (fig. 165).



FIG. 165: STONE TOOLS FROM PND01⁷









⁷ From left to right: ESA/MSA transition, MSA. LSA (grinding stones, cores, flakes, retouched pieces)




Each survey will produce a new list of isolated finds. These are finds noted from revisiting a site, or from the new survey. Instead of adding these new artefacts with their correlating sites, I will make a table in this subsection, so as not to rearrange the entire figure numbers and formatting. The table will be updated as the survey progresses. Table 3 shows these finds.




TABLE 3: ISOLATED FINDS

SITE	PHOTO	DESCRIPTION
PND086		Medicine bottle
PND064		Medicine bottle, Talana Glassworks, pre- 1953

<p>PND064</p>		<p>Generic kitchenware transfer print 1950's/ 1960's</p>
<p>PND087</p>		<p>Medicine bottle, Consolidated Glassworks Ltd. (Consol) Belville Factory Post 1946</p>
<p>PND095</p>		<p>Angier's (Petroleum) Emulsion The Angier Chemical Company London c. 1936</p>

<p>PND095</p>		<p>Generic kitchenware 1950's/ 1960's</p>
<p>PND050</p>		<p>Schweppes (SA) c. 1950's</p>
<p>PND050</p>		<p>SA Breweries Consolidated Glassworks Ltd. (Consol) Talana Factory Post 1953</p>

<p>Between PND055 & PND066</p>		<p>W. Daly & Son, Port Shepstone Consolidated Glassworks Ltd. (Consol) Talana Factory Post 1965</p>
<p>GEN01</p>		<p>Unifacial point with Levallois technique, MSA</p>
<p>Pnd047</p>		<p>Door Lock, undated</p>

PND064		Generic kitchenware, 1950's/ 1960's
PND071		Hanepoot wine Generic bottle, still made today. Unknown date
PND071		Beer bottle, Consolidated Glassworks Ltd. (Consol) Talana Factory Post 1946

PND073		1950's/1960's Gordon's Dry Gin
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MANAGEMENT PLAN AND WAY FORWARD

The Heritage Management plan for the Mun-ya-wana Conservancy is to record as many heritage sites as possible and provide site-specific management plans. Some sites would be very sensitive and should not be visited, e.g. PND01, PND011, and PND021. Other sites could be incorporated into the “Phinda diversity experience” where the palaeontological, archaeological and historical sites can be viewed from the game viewer during a game drive. Information regarding those sites can then be relayed to the guests, e.g. PND06, PND33 - 38, and PND41. Guests should not be allowed to exit the game viewers to see the sites from a safety and management point of view. Sites such as Fossil Dam are highly sensitive and an increase in human traffic would result in a deterioration of the site.

Some sites can be managed in such a way to allow guests to view the site more closely. For example, Fossil dam could have a boardwalk (with balustrades) over the fossils, and small plaques identifying the fossils. Alternatively, the rangers would need to learn the fossils names. This type of site would probably not be ideal for Phinda, as the boardwalk would be intrusive. Similarly, important sites cannot be fenced off, as they then impact on the animals around the area.

An ideal situation would be for each lodge to have a small display of ecofacts and artefacts, and a brief description of each item. A background board could be used to give a general explanation of the various periods represented in Phinda. These displays can be built in such a way as to incorporate the existing architectural style for each lodge. A display would be placed in the reception area, as this would be the most likely area for viewing. Guests will then already have some knowledge about the history of the area, before the rangers would point these out during game drives.

If guests are taken to sites where they exit the game viewer, then that will have an impact to the site. Impacts could be anything from the creation of erosion 'paths' that would then result in artefacts being exposed, artefacts and features that are regularly touched, to artefacts being stolen from a site (even if guests do not see it as stealing). Any impact on the site is of concern to Phinda Management, and we have already discussed some of the issues during site visits. I would recommend that guests not be allowed to exit the game viewer, despite the good intentions of the rangers.

Phinda will require a permit from Amafa KZN for any artefacts to be removed from a site for display purposes, or if guests are taken to a site. This permit itself can become part of a display by promoting the country's heritage legislation. The permit itself will become an issue. Many of the historical sites have artefacts that are rare, but are deteriorating whilst in the open environment. I suggest Mun-ya-wana Conservancy applies for a permit from Amafa KZN to remove the artefacts to a place of storage. This storage place can become a registered storage facility that would comply with the legal requirements associated with private collections. Amafa KZN does not have the capacity to store the materials such as the drilling rigs, engines, vehicles, pumps and bottles. Mun-ya-wana Conservancy is not legally required to preserve these artefacts either. However, a mutual agreement should be reached, especially if Mun-ya-wana Conservancy intends to put these on display. All of the artefacts being removed would be undertaken under the supervision of a qualified archaeologist who will catalogue all finds.

This is important as items such as the pumps, grinders, and especially the drilling rig will eventually be lost forever within 50 years if left in the open. Similarly chance finds such as the Devonshire button, shale armband, ivory button and sorghum lower grindingstone will be lost forever if left on the surface.

The way forward for these surveys is an obvious and difficult one. The three surveys have indicated that the area has a very rich archaeological, palaeontological and geological record. There are several unique and rare finds that have the potential to “tell a very big story”. The idea that heritage is part of conservation on a game reserve is very encouraging and in itself unique. I do not offhand know of another game reserve that incorporates nature and heritage conservation as part of the course, apart from those who run (dubious) cultural villages on the side.

The results of the three surveys has also yielded some clear patterns in terms of the human occupation of the area. The northern sandy areas probably have a high concentration of sites, however these are all lag deposits and probably 1m – 2m below the surface. They are unlikely to be recorded due to visibility, however, surveys along the tracks in the area should be able to note general finds. These areas have a low heritage sensitivity for older sites. These area are however more recently occupied and several 20th century settlements are known the local community. These locations of these sites should be noted ASAP, and are hopefully available via the land claims court. At the moment there is one *gogo* who claims to know the locations of all of these graves and settlements. She is in her 80s and the information might be lost soon. I suggest the land claims records are obtained that detail the amount of claimants, and or graves, and if these locations are not stipulated, then the *gogo* is requested to show the general locations. An archaeologist is not required to record these sites and they can become part of the general data base. This is even more important when one considers that the three graves I was shown had no markers and I admit that I

would never have seen these features in the first place. The alternative is to mark every old *Ziziphus mucronata*. and *E. ingens* as a grave.

The central area of Mun-ya-wana Conservancy tends to be granite and sandstone formations mixed with the volcanic eruptions from the Bumbeni Complex and the Cretaceous Beach Deposits. Apart from the palaeontological and geological significance, these areas yield caves and overhangs with archaeological deposit. Sites with archaeological deposit are of high significance and sensitivity. These overhangs are few in number, but need to be systematically surveyed. There is always the issue of leopards in these caves.

The southern area of the reserve appears to have the highest concentration of sites. Most of the hills are continuous open Stone Age deposits dating to the last 1.5 million years. That is it appears as if the entire Stone Age sequence could occur. Unfortunately the open sites are lag deposits and lack significance. However, even the occurrences of certain artefacts are important as they show the occurrence in the sequence. The southern area also has a long LIA and HP sequence. Unfortunately, the EIA and early LIA has not been recorded in the reserve yet.

If quantity, and density, of sites is sought after, I would recommend the southern half of the reserve is targeted. This might give a skewed result in terms of geo-social landscape but it will give an indication of the whole range of sites in the reserve.

The aerial photographs were actively used in the 2018 survey. We had noted possible sites from the photographs and then surveyed those areas. These started of as a test where features on the aerials were surveyed to see if they were indeed buildings. In this way I was able to determine the 'look' of a house on the aerial photograph. The next survey will re-analyse these photographs for buildings, and attempt to record some of them.

The last factor for surveys is vegetation density. Those area that had been recently burnt yielded high results as expected. Potential areas were noted during the survey, as well as areas that would not yield sites. Future surveys should occur at the end of winter when the vegetation is less dense and/or after an area has been burnt. This is especially relevant to the southern areas.

The report should be handed to other lodge owners so that they can familiarise themselves with the heritage legislation and the heritage of the area.

CONCLUSION

The Mun-ya-wana Conservancy survey is not for any development, rather to locate, assess and manage the various types of heritage sites that occur within the game reserve. Three surveys have been undertaken with a total of 84 heritage sites, and many isolated artefacts. The heritage sites include:

- a unique volcanic eruption
- Cretaceous Beach deposits
- Early, Middle and Late Stone Age
- Late Iron Age
- Historical period, and
- 20th century sites

Only the Early Iron Age and first half of the Late Iron Age are missing in the sequence of the last 1.5 million years. The Early Iron Age probably occurs in the sandy northern part of the reserve where artefacts would filter down 1m – 2m down to the black clay layer. The first half of the Late Iron Age probably occurs in the southern half of the reserve. This area has mostly been under dense vegetation during the surveys resulting in low archaeological visibility.

Most of the hills in the reserve have archaeological sites. I previously suggested that these area be surveyed at the end of winter or after they have been burnt. This will allow for more accurate surveys. This was undertaken in

2019, and was largely successful as large tracts of hills were surveyed that had a high concentration of artefacts. The central areas contain mainly rock outcrops and small mountains, or hills. These are ideal for overhangs and shelters that will contain archaeological deposits. The northern part of the reserve will have archaeological sites, but only as lag deposits. I suggested that the existing tracks are surveyed in these areas, instead of going into the thick bushes.

The location of several 1920s – 1940s houses was interesting in that these are the first colonial occupations of the area. Colonial travellers have been going through the area for decades and places like Bumbeni Store are even mentioned in a travellers records in 1900 (Lee 1930)

The next survey revisited some of the 20th century sites and undertook a more complete record of the surface artefacts. Much of this area had not been burnt and was still under thick vegetation.

I suggested that Mun-ya-wana Conservancy approach Amafa KZN for a permit to remove some of the artefacts to a dedicated storage room. These are only surface artefacts. This will be specifically for the 20th century artefacts such as the bottles, vehicles, or engines, the drill rig, etc.. This would need to be undertaken under the supervision of a qualified archaeologist who will also need to catalogue the finds, and then register them with Amafa KZN. The aim of this would be three-fold. First, many of the artefacts are being damaged by being in the open. Removing them to a covered area would partially assist them in being preserved. Second, glass bottles, metal objects, etc. are in one sense litter, and the Reserve might want to remove them. Third, the artefacts have the potential to placed on display relating to the history of the reserve.

Future surveys have the potential to find many more sites. Mun-ya-wana Conservancy is including heritage in its conservation efforts. This should be promoted as very few, if any game reserves in southern Africa do this.

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Lee, A.W. 1930. Charles Johnson of Zululand. The Society for the Propagation of the Gospel in Foreign Parts, 1930. (<http://anglicanhistory.org/africa/za/cjohnson/11.html>)

<https://www.devon-cornwall.police.uk>

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Maps

2732CB Lower Mkhuze 2002

2732CC Mhlosinga 1943, 2002

2732CD Kuleni 1942, 2002

117C_026_65075

117C_028_65125

117C_029_54794 – 54796

117C_033_65145 – 65150

117C_035_65178 – 65195

117C_035_06405 - 06413

117C_037_65220 – 65237

117C_039_65254 - 65270