A LETTER OF RECOMMENDATION (WITH CONDITIONS) FOR THE EXEMPTION OF A FULL PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT (AIA) FOR THE PROPOSED MINING PERMIT APPLICATION ON THE REMAINING EXTENT OF PORTION 19 OF THE FARM ECOWA 102, ELLIOT DISTRICT, DRAKENSBURG DISTRICT COUNCIL, EASTERN CAPE REGION.

NOTE: An archaeological impact assessment was required as a requisite of the National Heritage Resources Act 25 of 1999, Section 38 (1)(c)(i):

- 38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorized as -
- (c) any development or other activity which will change the character of the site -
 - (i) exceeding 5000 m2 in extent

This report follows the minimum standard guidelines required by the South African Heritage Resources Agency (SAHRA) and the Eastern Cape Provincial Heritage Resources Agency (ECPHRA) for compiling a Letter of Recommendation for the Exemption of a Full Phase 1 Archaeological Impact Assessment.

1. EXECUTIVE SUMMARY

1.1. The type of development

Mining permit application for the extension of the hard rock quarry situated on the remaining extent of Portion 19 of the Farm Ecowa 102, Elliot District, Drakensburg District Council, Eastern Cape Region. The mining application is 4.922 hectares in extent. The western block will be dedicated to a weighbridge, stockpile and office area.

1.2. Applicant

B.P. Mhlanganiso

1.3. Consultant

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1.4. Terms of reference

The purpose of the study was to conduct a phase 1 archaeological impact assessment (AIA) for the proposed Mining permit application for a hard rock quarry on the remaining extent of Portion 19 of the Farm Ecowa 102, Elliot District, Drakensburg District Council,

The survey was conducted to:

- establish the range and importance of the exposed and in situ archaeological heritage materials remains, sites, and features;
- establish the potential impact of the development; and
- make recommendations to minimize possible damage to the archaeological

1.5. Declaration of Independence and Qualifications

This section confirms a declaration of independence that archaeological heritage specialist, Ms Celeste Booth, has no financial or any other personal interests in the project for the proposed mining right application on the Farm Klipfontein No. 242. Ms Celeste Booth was appointed on a strictly professional basis to conduct a Phase 1 Archaeological Impact Assessment in line with the South African national heritage legislation, the National Heritage Resources Act 25 of 1999 (NHRA 25 of 1999) and in response to the recommendations provided by the Department of Environmental Affairs and according to the environmental impact assessment regulations.

Ms Celeste Booth (BSc Honours: Archaeology) is an archaeologist who has had eight years of full time experience in Cultural Resource Management in the Eastern Cape and sections of the Northern Cape and Western Cape. Ms Booth has conducted several Archaeological Desktop Studies and Phase 1 Archaeological Impact Assessments within the Eastern Cape and in the Karoo region across the Eastern Cape, Northern Cape and Western Cape.

1.6. Brief Summary of Findings

No archaeological or other heritage remains, features, or sites were observed within the proposed area for the extension of the existing hard rock quarry and associated

2. DESCRIPTION OF THE PROPERTY

2.1. Location data

The proposed development area is located within the rural farming areas on privately owned land about 2.5 km south-west of the town of Elliot, of The access road is situated about 2.4 km west from Elliot off the R56.

2.2. Map

1:50 000 topographic map: 3127 BD ELLIOT, 2006 Edition (Figure 1)

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Reference	Description	Coordinate	Heritage Grading
	Centre point of existing quarry	31°21′19.12″S) 27°50′20.86″E	N/A
Existing Quarry Mining Extension Area	Main area proposed for the extension for the mining activities	31°21′19.65″5; 27°50′25.96″E	N/A
Weighbridge, Stockpile and Office Area	Centre point of weighbridge, stockpile and office area	31°21′19.84″S; 27°50″13.72″E	M/A

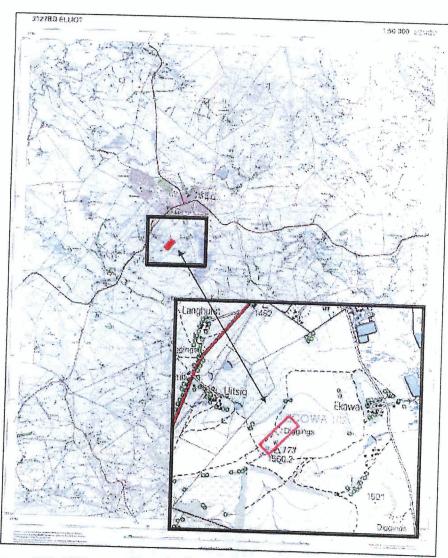


Figure 1, 1:50 000 topographic map 3127 BD ELLIOT showing the location of the proposed area for the mining permit application on the remaining extent of Portion 19 of the Farm Ecowa 102.



Figure 2. Googie Earth generated map showing the location of the proposed area for the mining permit application on the remaining extent of Portion 19 of the Farm Ecowa 102 and surrounding towns.

Figure 3. Google Earth generated map showing the location of the proposed area for the mining permit application on the remaining extent of Portion 19 of the Farm Ecowa 102 in relation to the town Elliot and surrounding farming areas,



Figure 4. Google Earth generated map showing the extent of the proposed area for the mining permit application on the remaining extent of Portion 19 of the Farm Ecowa 102 showing the existing quarry and extension area as well as the location of the weighbridge, stockpile and office area.

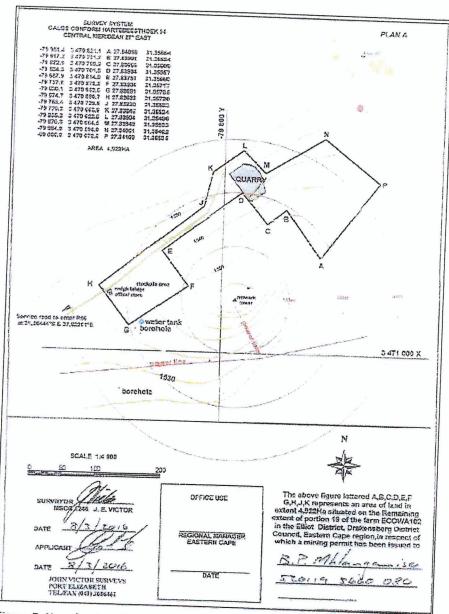


Figure 5. Map showing the proposed mining permit boundary (courtesy of Stellenryck Environmental).

3. ARCHAEOLOGICAL INVESTIGATION

3.1. Methodology

The archaeological investigation was conducted on foot accompanied by Mr Jan van As and a team of specialists (Geology, Botany and Zoology) (owner and employees of Stellenryck Environmental). The proposed area was investigated for possible archaeological heritage remains, features, and sites. The area mostly covered in dense grass vegetation with few densely vegetated surface areas that limited archaeological visibility. The few surface exposed and disturbed areas were investigated for the occurrence of possible archaeological heritage remains.

Photographs and the GPS co-ordinates were taken using a Garmin Oregon 650. The relevant GPS coordinates have been plotted on Google Earth generated maps and the map showing the layout and extent of the proposed mining application area has been provided by Stellenryck Environmental.

A brief overview of archaeological research and relevant archaeological, heritage, and cultural impact assessment have been included as no archaeological research has been conducted within the immediate surrounds of the proposed development area.

3.2. Results of the Archaeological Survey

The proposed mining activities will take place towards the north and east surrounding the existing quarry which is approximately 60 m x 40 m in extent (Figure 6). The area mostly covered in dense grass vegetation with few densely vegetated surface areas (Figures 7 – 10). One rock outcrop and a rocky area were investigated for the possibility of observing possible archaeological heritage remains. In most areas the archaeological visibility was obscured by the dense grass vegetation cover with very few exposed surfaces. Exposed surface areas, for example, internal gravel roads, footpaths created by domesticated stock, and eroded areas were investigated for possible archaeological heritage remains.

No archaeological heritage remains, features, or sites were observed within the proposed area of the mining activities. It must be noted that the investigation was limited to the surface as well as the exposed and disturbed surface areas and in most areas archaeological visibility was obscured by heavily dense transformed grass vegetation opver.



Figure 6. View of the existing quarry,

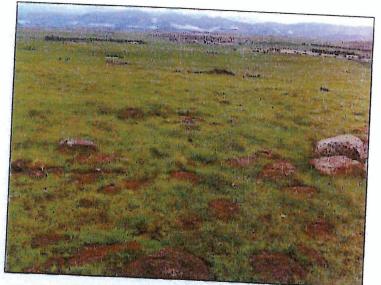


Figure 7. View of the proposed quarry extension are facing north-west.

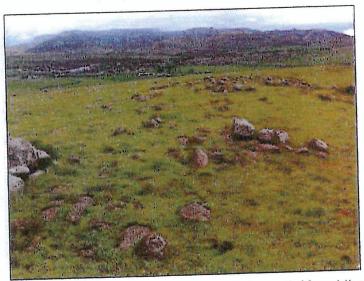


Figure 8. View of the quarry extension area facing north (the existing quarry is situated to the west).



Figure 9. View of the area to the north of the existing quarry,



Figure 10. View of the area proposed for the establishment of the weighbridge, offices and stockpile area.

4. ARCHAEOLOGICAL BACKGROUND

Little systematic archaeological research has been conducted within the immediate area of the proposed development. Most archaeological research that has been conducted in the wider regions of the regions of the north-eastern Cape to the west of the proposed development.

Several relevant archaeological and heritage impact assessments have been conducted within the wider region. These impact assessments have identified several Middle, and Later Stone Age artefact scatters and sites as well as evidence of Iron Age agropastoralist occupation and/or interaction by the presence of broken earthenware pot sherds and associated material culture and settlement patterns.

4.1. Early Stone Age (ESA) - 1.5 million to 250 000 years ago

The Early Stone Age from between 1.5 million and 250 000 years ago refers to the earliest that *Homo sapiens sapiens* predecessors began making stone tools. The earliest stone tool industry was referred to as the Olduwan Industry originating from stone artefacts recorded at Olduvai Gorge, Tanzania. The Acheulian Industry, the predominant southern African Early Stone Age Industry, replaced the Olduwan Industry approximately 1.5 million years ago, is attested to in diverse environments and over wide geographical areas. The hallmark of the Acheulian Industry is its large cutting tools (LCTs or bifaces), primarily

handaxes and cleavers. Bifaces emerged in East Africa more than 1.5 million years ago (mya) but have been reported from a wide range of areas, from South Africa to northern Europe and from India to the Iberian coast. The end products were similar across the geographical and chronological distribution of the Acheulian techno-complex: large flakes that were suitable in size and morphology for the production of handaxes and cleavers perfectly suited to the available raw materials (Sharon 2009).

One of the most well-known Early Stone Age sites in southern Africa is Amanzi Springs (Deacon 1970), situated about 10 km north-east of Uitenhage and 45 km south east of the WEF site. The site is situated on a north-facing hill overlooking the Coega River. The earliest reference to the spring was made by an early traveller, Barrow (1801). FitzPatrick first reported stone artefacts in the area in 1924. Ray Inskeep (Inskeep 1965) conducted a small-scale excavation of the site in 1963. It was only in 1964 and 1965 that large scale excavations were conducted by Hilary Deacon. In a series of spring deposits a large number of stone tools were found *in situ* to a depth of 3-4 m. Wood and seed material preserved remarkably very well within the spring deposits, and possibly date to between 300 000 to 250 000 years old.

Other Early Stone Age sites that contained preserved bone and plant material include Wonderwerk Cave in the Northern Province, near Kimberly and Montagu Cave in the Western Cape, near the small town of Montagu (Mitchell 2007). Early Stone Age sites have also been reported in the foothills of the Sneeuberge Mountains (in Prins 2011).

The location of Early Stone Age sites are biased by several factors, the change in land surface, so that the evidence of coastal exploitation is absent, the survival of Early Stone Age material either *in situ* or sealed within Pleistocene deposits is limited by soil and water activities and numerous processes in environmental change over time and research interests of professional archaeologists. Early Stone Age materials are the earliest evidence for human ancestors occupying the Transkei and Ciskei regions and typically occur on floodplains of perennial rivers and along drainage lines and water courses.

Museum collections have handaxes mixed collections and other collections attributed to the Early Stone Age. Sites of convincing Early Stone Age date are indicated in most areas of the Ciskei and are present in the Transkei districts of Kentani, Butterworth, Ngamakwe, St. Mark's, Engcobo, Matatiele, Mount Frere, Mount Ayliff, Bizana, Idutywa, Lusikisiki, Mount Currie and Umtata (Derricourt 1977).

4.2. Middle Stone Age (MSA) - 250 000 - 30 000 years ago

The Middle Stone Age spans a period from 250 000 - 30 000 years ago and focuses on the emergence of modern humans through the change in technology, behaviour, physical appearance, art and symbolism. Various stone artefact industries occur during this time period, although less is known about the time prior to 120 000 years ago, extensive

systemic archaeological research is being conducted on sites across southern Africa dating within the last 120 000 years (Thompson & Marean 2008). The large handaxes and cleavers were replaced by smaller stone artefacts called the Middle Stone Age flake and blade industries. Surface scatters of these flake and blade industries occur widespread across southern Africa although rarely with any associated botanical and faunal remains. It is also common for these stone artefacts to be found between the surface and approximately 50-80 cm below ground. Fossil bone may in rare cases be associated with Middle Stone Age occurrences (Gess 1969). These stone artefacts, like the Earlier Stone Age handaxes are usually observed in secondary context with no other associated archaeological material.

The Middle Stone Age is distinguished from the Early Stone Age by the smaller-sized and distinctly different stone artefacts and chaîne opératoire (method) used in manufacture, the introduction of other types of artefacts and evidence of symbolic behaviour. The prepared core technique was used for the manufacture of the stone artefacts which display a characteristic facetted striking platform and includes mainly unifacial and bifacial flake blades and points. The Howiesons Poort Industry (80 000 - 55 000 years ago) is distinguished from the other Middle Stone Age stone artefacts: the size of tools are generally smaller, the range of raw materials include finer-grained rocks such as silcrete, chalcedony, quartz and hornfels, and include segments, backed blades and trapezoids in the stone toolkit which were sometimes hafted (set or glued) onto handles. In addition to stone artefacts, bone was worked into points, possibly hafted, and used as tools for hunting (Deacon & Deacon 1999).

Other types of artefacts that have been encountered in archaeological excavations include tick shell (Nassarius kraussianus) beads, the rim pieces of ostrich eggshell (OES) water flasks, othere-stained pieces of ostrich eggshell and engraved and scratched other pieces, as well as the collection of materials for purely aesthetic reasons. Although Middle Stone Age artefacts occur throughout the Eastern Cape, the most well-known Middle Stone Age sites include the type-site for the Howiesons Poort stone tool industry, Howiesons Poort (HP) rock shelter, situated close to Grahamstown, and Klasies River Mouth Cave (KRM), situated along the Tsitsikamma coast. Middle Stone Age sites are located both at the coast and in the interior across southern Africa.

Systematic archaeological research has been conducted on several sites yielding evidence of Middle Stone Age occupation occurring within the foothills of the Drakensburg situated west of the proposed development area and extending into Lesotho and KwaZulu Natal. Strathalan Cave B situated about 10 km north-east of Madear and about 100 - 110 km east of the proposed development area, shows evidence of human behaviour between 29 000 and 22 000 years ago. This period highlights the final years of the Middle Stone Age and is considered transient between the Middle and Late Stone Ages. Excavations at the site revealed that the small cave may have been used as a camp site during cold winternights and that the people occupying the cave behaved like Late Stone Age hunter-

gatherers in some respects, but not all (Opperman, 1996; Opperman & Heydenrych 1990). During 1978 an archaeological research programme was initiated in the north-eastern Cape to gain information on the end Pleistocene and Holocene hunter-gatherer populations and the palaeoecology along a gradient transecting the extension of the Drakensberg escarpment into the Cape. Excavations were conducted at a series of sites in the Dordrecht-Elliot-Ugie-Barkley East area which was usually well-known for its painted sites. The only excavations that were previously carried were at Belleview (Drakensburg), Moshebi's Shelter and Sehonghong (in eastern Lesotho) and Merino Walk within the Barkley East region. Below the escarpment two rock shelters were excavated at Bonawe and Te Vrede (Elliot and Ugie Districts) above the escarpment excavations have been undertaken in the Barkley East District at Colwinton, Prospect, Wartrail and Ravenscraig. In addition to this an excavation has been conducted at a site on the farm Grassridge near Dordrecht. All sites included end-Pleistocene and Holocene material expect Wartrail (entirely Holocene) and Grassridge (Earlier late Pleistocene occupation). Additional sites that also contain late / terminal Pleistocene and Holocene deposits in the eastern highlands of South Africa and Lesotho include Rose Cottage Cave and Melikane, Ha Soloja Shelter does not show evidence of any Late Stone Age occupation (Plug 1996).

Several archaeological research projects are currently ongoing within the wider former Transkei and north-eastern Cape / southern Drakensburg region. In 2011, the Pondoland Paleoenvironment, Paleoelomate, Paleoecology, and Paleoanthropology Project (P5) began a search for new research areas along South Africa's coast (the eastern seaboard and Pondoland) where long-term and continuous records of modern human evolution and coastal foraging may be found (Fischer et al. 2013). In the Stormberg Mountains near Dordrecht, renewed excavations and investigation into Grassridge site, with particular interest in the Middle Stone Age sequence, are currently ongoing. An underlying Middle Stone Age (MSA, ~300-30 ka) sequence containing abundant typologically MSA lithic material, well-preserved faunal remains, and charcoal was identified during the 1979 excavations which focused primarily on the Later Stone Age sequence (Collins & Ames 2015).

Scatters of Middle Stone Age stone artefacts are also known to occur within the surrounding area where these have been recorded in archaeological and heritage impact assessments within the region. These the Eastern Cape Highlands where they occur along minor and major river courses in exposed and disturbed areas such as quarries, erosion dongas, gravel farm roads and 'manmade' dams.

4.3. Later Stone Age (LSA) - 30 000 years ago - recent (100 years ago)

The Later Stone Age (LSA) spans the period from about 20 000 years ago until the colonial era, although some communities continue making stone tools today. The period between 30 000 and 20 000 years ago is referred to as the transition from the Middle Stone Age to Later Stone Age; generally there is a lack of crucial sites and evidence that represent this

change, however, several sites to the west of the proposed development in the eastern Cape Highlands, north in eastern Lesotho and the Drakensburg in KwaZulu Natal have been dated to this time period. By the time of the Later Stone Age the genus Homo, in southern Africa, had developed into Homo sapiens, and in Europe, had already replaced Homo neanderthalensis.

The Later Stone Age is marked by a series of technological innovations, new tools and artefacts, the development of economic, political and social systems, and core symbolic beliefs and rituals. The stone toolkits changed over time according to time-specific needs and raw material availability, from smaller microlithic Robberg (20/18 000-14 000 ya), Wilton (8 000-the last 500 years) Industries and in between, the larger Albany/Oakhurst (14 000-8 000ya) and the Kabeljous (4 500-the last 500 years) Industries. Bored stones were used as part of digging sticks, grooved stones for sharpening and grinding, and stone tools fixed to handles with mastic also become more common. Fishing equipment such as hooks, gorges and sinkers also appear within archaeological excavations. Polished bone tools such as eyed needles, awls, linkshafts and arrowheads also become a more common occurrence. Most importantly bows and arrows revolutionized the hunting economy. It was only within the last 2 000 years that earthenware pottery was introduced, before then tortoiseshell bowls were used for cooking and ostrich eggshell (OES) flasks were used for storing water. Decorative items like ostrich eggshell and marine/fresh water shell beads and pendants were made.

Hunting and gathering made up the economic way of life of these communities; therefore, they are normally referred to as hunter-gatherers. Hunter-gatherers hunted both small and large game and gathered edible plantfoods from the veld. For those that lived at or close to the coast, marine shellfish and seals and other edible marine resources were available for gathering. The political system was mainly egalitarian, and socially, hunter-gatherers lived in bands of up to twenty people during the scarce resource availability dispersal seasons and aggregated according to kinship relations during the abundant resource availability seasons. Symbolic beliefs and rituals are evidenced by the deliberate burial of the dead and in the rock art paintings and engravings scattered across the southern African landscape.

The majority of hunter-gatherer archaeological sites found usually date from the past 10 000 years where San hunter-gatherers inhabited the landscape living in rock shelters and caves as well as on the open landscape. These latter sites are difficult to find because they are in the open veld and often covered by vegetation and sand. Sometimes these sites are only represented by a few stone tools and fragments of bone. The preservation of these sites is poor and it is not always possible to date them (Deacon and Deacon 1999). Caves and rock shelters, however, in most cases, provide a more substantial preservation record of pre-colonial human occupation.

Later Stone Age sites occur both at the coast (caves, rock shelters, open sites and shell middens) and in the interior (caves, rock shelters and open sites) across southern Africa. There are more than a few significant Later Stone Age sites in the Eastern Cape. The most popular are the type-sites for the above-mentioned stone artefact industries, namely Wilton (for the Wilton Industry), Melkhoutboom (for the Albany Industry), both rock shelters situated to the west of Grahamstown, and Kabeljous Rock Shelter (for the Kabeljous Industry) situated just north of Jeffreys Bay. Caves and rock shelters that were occupied by the San during the Later Stone Age sometimes contain numerous paintings along the walls.

Several cave and rock shelter sites have been recorded west of the proposed development area into the north-eastern Cape and the foothills of the southern Drakensberg, Several of the sites mentioned in the Middle Stone Age section show evidence of Later Stone Age occupation. Later Stone Age deposits dating from the terminal Pleistocene to 1008P include Rose Cottage Cave (eastern Free State) and Melikane, Schonghong and Moshebi's Shelter in eastern Lesotho. In the foothills of the Drakensberg recent Later Stone Age assemblages have been documented in the Phuthiatsana-ea-Thaba Basin and include 17 large rock shelters, 32 small rock shelters and cliff edge, 8 large rocks and 8 open sites. Later Stone Age assemblages have also been documented at Mhlwazini Cave and Collingham Shelter (Plug 1996). Colwinton's formal stone tool assemblage was dominated by the scrapers which is consistent with a majority of Later Stone Age assemblages in southern Africa. Potsherds and bone fish hooks were also recorded at the site as well as at Belleview and Driel (Opperman 1982). Strathalan Cave B situated about 10 km northeast of Maclear and about 100 - 110 km east of the proposed development area, shows evidence of human behaviour between 29 000 and 22 000 years ago. However, radiocarbon dating indicates a hiatus of 10 000 years between the final Middle Stone Age date and first Later Stone Age occupation of the adjacent Strathalan Cave A. Ravenscraig was noted for the occurrence of chalcedony bladelets and stone artefacts resembling the Robberg Industry of the southern and eastern Cape. The lowest stratigraphic layer at Colwinton contained stone artefacts resembling those of the Albany Industry of the southern and eastern Cape (Opperman 1982).

According to Derricourt (1977) open Later Stone Age sites in the Transkei and Ciskei are mostly located close to water regardless of whether it may be seasonal or perennial and water courses and notes that lydianite (indurated shale / hornfels) is predominant as a raw material. He also notes that it is possible that Later Stone Age open sites may be distinguished by those containing pottery and those without.

4.4. Last 2 000 years - Khoekhoen Pastoralism

Until 2 000 years ago, hunter-gatherer communities traded, exchanged goods, encountered and interacted with other hunter-gatherer communities. From about 2 000 years ago the social dynamics of the southern African landscape started changing with the

immigration of two 'other' groups of people, different in physique, political, economic and social systems, beliefs and rituals. One of these groups, the Khoekhoen pastoralists or herders entered southern Africa with domestic animals, namely fat-tailed sheep and goats, travelling through the south towards the coast. Khoekhoen pastoralist sites are often found close to the banks of large streams and rivers. They also introduced thinwalled pottery common in the interior and along the coastal regions of southern Africa. Their economic systems were directed by the accumulation of wealth in domestic stock numbers and their political make-up was more hierarchical than that of the huntergatherers.

The most significant Khoekhoen pastoralist sites in the Eastern Cape include Scott's Cave near Patensie (Deacon 1967), Goedgeloof shell midden along the St. Francis coast (Binneman 2007) and Oakleigh rock shelter near Queenstown (Derricourt 1977). Often, these archaeological sites are found close to the banks of large streams and rivers. It is much more difficult to locate Khoekhoen open sites, owing to their settlement pattern and lack of stone artefacts, makes evidence of occupation almost 'invisible'.

Pre-agriculturalist pottery have been documented at some of the sites mentioned above. Pottery within the wider region of the proposed development area, from Swaziland to the north-eastern Cape, dates between 2 100 and 2 200 years and could possibly be earlier, predating the arrival of the of the agriculturalists by 400 years. No sheep remains have been found in association with the pottery which is stylistically different from those of the later agriculturalists (Iron Age populations) and a mean thickness of 7-8 mm Pottery has been documented at Driel Shelter, Clarke's Shelter and Mhlwazini Cave in the northern Drakensberg with dates ranging between of 2 160 ± 50BP and 1 775 ±40BP; at Collingham Shelter and Good Hope Shelter with dates ranging between 2 160 BP and 1 770 BP; and at Moshebi's Shelter in eastern Lesotho with a date of 2 180 ±45BP. To the west of the proposed development area in the Barkley East district the dates for the pottery documented at Colwinton Shelter and Bonawe Shelter in the north-eastern Cape, Barkley East District, range between 2 250 ±80BP and 920 ±50BP (Mazel 1992).

4.5. Last 2 000 Years - The Iron Age

The Nguni-speaking agropastoralists or 'first-farming communities' or Iron Age communities entered southern Africa along the east coast within the last 2 000 years. They owned domestic stock, namely goats, sheep and cattle. Their pottery was different to that of the Khoekhoe, in the shape, thickness, heavy decoration and variety of the vessels. First farming communities lived a relatively sedentary way of life, they planted sorghum and millet, and were therefore limited to settle in the summer rainfall areas. In addition, first farming communities possessed the skill of metal working, having the ability to mine and work iron, copper, tin and even gold. Their economic systems were also based on the accumulation of wealth through owner-ship and their political organization was slightly more hierarchical than that of the Khoekhoen.

Much research has been conducted on the Iron Age (IA) across southern Africa, therefore resulting in well-established chronological and typological frameworks and settlement and economic patterns for the Iron Age sequence (Huffman 2007). The Iron Age sequence is based on ceramic phases determined by vessel profile and decoration motif and placement.

According to Huffman (2007) an eastern migration stream, known as the Chifumbaze Complex spread southwards from East Africa south into southern Africa during the period of about AD 200—300 where several KwaZulu-Natal and north-Eastern Cape sites were occupied. The Early Iron Age sites in the Eastern Cape dates to between circa AD 600 to AD 900 and can be divided into the following ceramic facies (Maggs 1989; Huffman 2007):

- Msuluzi (AD 500-700);
- Ndondondwane (AD 700 800);
- Ntshekane (AD 800 900).

Thicker and decorated pottery sherds, kraals, possible remains of domesticated animals, upper and lower grindstones, storage pits, metal and iron implements are associated with identifying Early Iron Age sites. The sites are generally large settlements, but the archaeological visibility may in most cases be difficult owing to the organic nature of the homesteads. Additional evidence of these agropastoralist groups derives from rock paintings of cattle painted by hunter-gatherer groups who encountered or interacted with these communities. The bones of cattle and sheep excavated at Oakleigh Shelter near Queenstown may be an indication of possible stock theft (Demicourt 1977). The Early Iron Age (EIA) first-farming communities during the first millennium AD generally preferred to occupy river valleys within the eastern half of southern Africa owing to the summer-rainfall climate that was conducive for growing millet and sorghum.

In comparison to other areas containing Iron Age sites only a small amount of Iron Age research has been conducted in the Eastern Cape thus far. Earlier investigations into the Early Iron Age in the Transkei and Ciskei includes work at Buffalo River Mouth (Wells 1934; Laidler 1935), at Chalumna River Mouth (Derricourt 1977) and additional research by Feely (1987) and Prins (1989). Early Iron Age Sites (EIA) sites also include Kulubele situated in the Great Kei River Valley near Khomga (Binneman 1996), Ntsitsana situated in the interior Transkei, 70 km west of the coast, along the Mzimvubu River (Prins & Granger 1993), and Canasta Place situated on the west bank of the Buffalo (Qonce) River (Nogwaza 1994). Along the coast, near Coffee Bay, Early Iron Age sites have been dated from AD 670 and includes the sites of Mpame and Mqanduli. Early Iron Age pottery scatters have been documented along several area of the Wild Coast coastline including Zig-Zag Cave near Port St Johns (Derricourt 1977).

Hilltop settlement is mainly associated with Later Iron Age (LIA) settlement patterns that occurred during the second millennium AD. The Later Iron Age communities later moved

from settlement in river valleys to the hilltops. Later Iron Age settlements have been formally recorded by the Albany Museum With the exception of the Tembu, stone buildings which characterizes the Iron Age sites of Sotho areas, is absent in the Transkei and Ciskei, and a pattern of some mobility without, it is presumed, a stone working technology of significance, makes the allocation of sites a major problem (Derricourt 1973).

Huffman's (2004) ceramic sequence among the Nguni groups contains three facies:

- Blackburn (AD 1 050 1 300): along north and south coasts of KwaZulu Natal;
- Moor Park (AD 1 300 1 700): first recorded in Estcourt Midlands then along Transkei coast where it was called Umgazana Ware. Appears south of the Mtamvuma River and it is suggested that it was the beginning of the division between southern and northern Nguni people and probably continued into the nineteenth century;
- Ngabeni (AD 1 700 1 850): style centres on KwaZulu Natal;

4.6. Human Remains

It is difficult to detect the presence of archaeological human remains on the landscape as these burials, in most cases, are not marked at the surface. Human remains are usually observed when they are exposed through erosion or construction activities for development. Several human remains have been rescued eroding out of the dunes along this coastline. In some instances packed stones or rocks may indicate the presence of informal pre-colonial burials.

The Albany Museum Database holds records of human remains that have been exposed and collected for conservation and curation within the wider region especially along the coastal areas. Cultural Resource Management practitioners whilst conducting archaeological heritage impact assessments have also recorded formal historical and contemporary cemeteries and informal burials within the wider region.

4.7. Rock Art (Paintings and Engravings)

Rock art is generally associated with the Later Stone Age period mostly dating from the last 5000 years to the historical period. It is difficult to accurately date the rock art without destructive practices. The southern African landscape is exceptionally rich in the distribution of rock art which is determined between paintings and engravings. Rock paintings occur on the walls of caves and rock shelters across southern Africa and are prolific in the Southern Drakensberg, north-eastern Cape extending the entire Drakensberg range into KwaZulu-Natal and Lesotho. Rock engravings are limited to the Karoo and Northern Cape Regions and do not generally occur within the north-eastern Cape region and Transkei region.

Rock art research within the Southern Drakensberg has been conducted by several researchers and students from the Rock Art Research Institute, University of the

Witwatersrand, over a period of 25 years, with a well-established database of site from Maclear, Tsolo, Barkly East, Ugie, Dordrecht and the wider region and extent of the Drakensberg range and Maluti Mountains. The South African Rock Art Database established by the Rock Art Research Institute is a useful source for rock art site information across southern Africa.

5. RELEVANT ARCHAEOLOGICAL IMPACT ASSESSMENTS

- Anderson, G. 2012. Heritage survey of the Proposed Ugie Road Upgrade and Borrow Pit, Eastern Cape.
- Booth, C. An Archaeological Desktop Study for the Proposed Elliot Wind Energy Facility on a site West of Elliot, Sakhisizwe Local Municipality.
- Kruger, N. 2013. Archaeological Impact Assessment for the Singumeni and Dukati Bulk Water Supply Scheme, Eastern Cape Province.
- Prins, F. 2010. Cultural Heritage Impact Assessment of the proposed 132kV Eskom Powerline from Sappi to Elliot and Ugie Substations, Eastern Cape. Prins, F. 2011. Cultural Heritage Assessment of a Section of the National Route R61 between Umthatha and Queenstown and Associated Quarry and Borrow Pits.
- Van Ryneveld, K. 2010. Phase 1 Archaeological Impact Assessment: Qulubeni Villages Water Reticulation Scheme: Bulk Water Supply Backlog - Ngcobo Cluster 6 (Luqolweni, Mareleni, Sidindi, Empindweni, Engxangaxasi, Silidindi and Hala Villages), Qutubeni, Eastern Cape, South Africa.
- Van Ryneveld, K. 2010. Phase 1 Archaeological Impact Assessment: Expansion of the Cala Landfill Site, Closure of the Elliot Landfill Site and Establishment of a Waste Water Transfer Station at each site, Cala and Elliot, Eastern Cape, South Africa.
- Van Ryneveld, K. 2010. Tsolo Sewage Treatment Works, Tsolo, O.R. Tambo District, Eastern Cape, South Africa.
- Van Ryneveld, K. 2011. Phase 1 Archaeological Impact Assessment: The Noora Sand Mine (Cluster 4 Noora Water Supply Scheme), Noora, CHDM, Eastern Cape, South Africa
- Van Ryneveld, K. 2011. Phase 1 Archaeological Impact Assessment: Bulk Rising Main East, Ngcobo Cluster 6, Eastern Cape, South Africa.
- Van Ryneveld, K. 2011. Phase 1 Archaeological Impact Assessment: Utilization of Borrow Pits - Chris Hani District Municipality, Eastern Cape, South Africa.
- Van Ryneveld, K. 2012. Phase 1 Archaeological Impact Assessment: Penhoek Pass Upgrade of the N6-4 [km52 km 66.20], between Queenstown and Jamestown, Eastern Cape Province, Eastern Cape, South Africa.
- Van Ryneveld, K. 2012. Phase 1 Archaeological Impact Assessment: Utilization of Existing Borrow Pit (Cluster 6 Bulk Water Supply Project), Engcobo, Eastern Cape, South Africa.
- Van Schalkwyk, L. 2004. Cultural Heritage Assessment of Proposed Road Upgrade and Construction: Ugie to Langeni Sawmill, Eastern Cape Province, South Africa.
- Van Schalkwyk, L. 2007. Heritage Impact Assessment of Waste Water Treatment Works, Ugie, Eastern Cape Province, South Africa.

- Van Schalkwyk, L. 2010. Heritage Impact Assessment of Ugie Borrow Pits, Eastern Cape Province.
- Van Schalkwyk, L. 2010. Phase 1 Archaeological Impact Assessment: Heritage Impact Assessment of Ugie Storage and Supply Dam, Eastern Cape Province, South Africa.

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7. LETTER OF RECOMMENDATION

It is recommended that the area proposed for the mining permit application om remaining extent of Portion 19 of the Farm Ecowa 102, Elliot District, Drakensburg District Council, Eastern Cape Region, is exempted from a full Phase 1 Archaeological Impact Assessment. The proposed area for development is of low archaeological cultural sensitivity. No archaeological heritage sites, features, or remains were documented during the survey, although it is possible that archaeological heritage material may occur below the surface. Taking into consideration the recommendation below, the development may proceed as planned.

There were no archaeological artefacts located during the phase 1 archaeological impact assessment carried out. If any archaeological or heritage material were to be discovered it is very unlikely that it would be in situ. However, there is always a possibility that human

remains or other archaeological and historical material may be uncovered during the development. Such material must be reported to the Eastern Cape Provincial Heritage Resources Agency (ECPHRA) (043 745 0888) or the Albany Museum (046 622 2312) if exposed.

Note: This letter of recommendation only exempts the proposed development from a full Phase 1 Archaeological Heritage Impact Assessment, but not for other heritage impact assessments.

It must also be clear that this letter of recommendation for exemption of a full Phase 1 archaeological heritage impact assessment will be assessed by the relevant heritage resources authority. The final decision rests with the heritage resources authority, which should give a permit or a formal letter of permission for the destruction of any cultural sites.

The National Heritage Resources Act (Act No. 25 of 1999, section 35) requires a full Heritage Impact Assessment (HIA) in order that all heritage resources, that is, all places or objects of aesthetics, architectural, historic, scientific, social, spiritual linguistic or technological value or significance are protected. Thus any assessment should make provision for the protection of all these heritage components, including archaeology, shipwrecks, battlefields, graves, and structures older than 60 years, living heritage, historical settlements, landscapes, geological sites, palaeontological sites and objects.

8. RECOMMENDATIONS

Although no archaeological heritage remains, features, and sites were encountered during the survey, the following recommendations should be considered before development proceeds:

- The environmental control officer (ECO) as well as the construction rnanagers/foremen should be informed before construction starts on the possible types of heritage sites and cultural material they may encounter and the procedures to follow when they find sites.
- 2. If concentrations of archaeological and/or historical heritage material, marine shells, and / or human remains are uncovered during construction, all work must cease immediately and be reported to the Albany Museum (046 622 2312) and/or the Eastern Cape Provincial Heritage Resources Agency (ECPHRA) (043 745 0888) so that systematic and professional investigation/ excavation can be undertaken.

9. GENERAL REMARKS AND CONDITIONS

It must be emphasised that this letter of recommendation for exemption of a full Phase 1 archaeological heritage impact assessment is based on the visibility of archaeological sites/material and may not, therefore, reflect the true state of affairs. Sites and material may be covered by soil and vegetation and will only be located once this has been removed. In the unlikely event of such finds being uncovered, (during any phase of construction work), archaeologists must be informed immediately so that they can investigate the importance of the sites and excavate or collect material before it is destroyed (see attached list of possible archaeological sites and material). The onus is on the developer to ensure that this agreement is honoured in accordance with the National Heritage Act No. 25 of 1999.

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