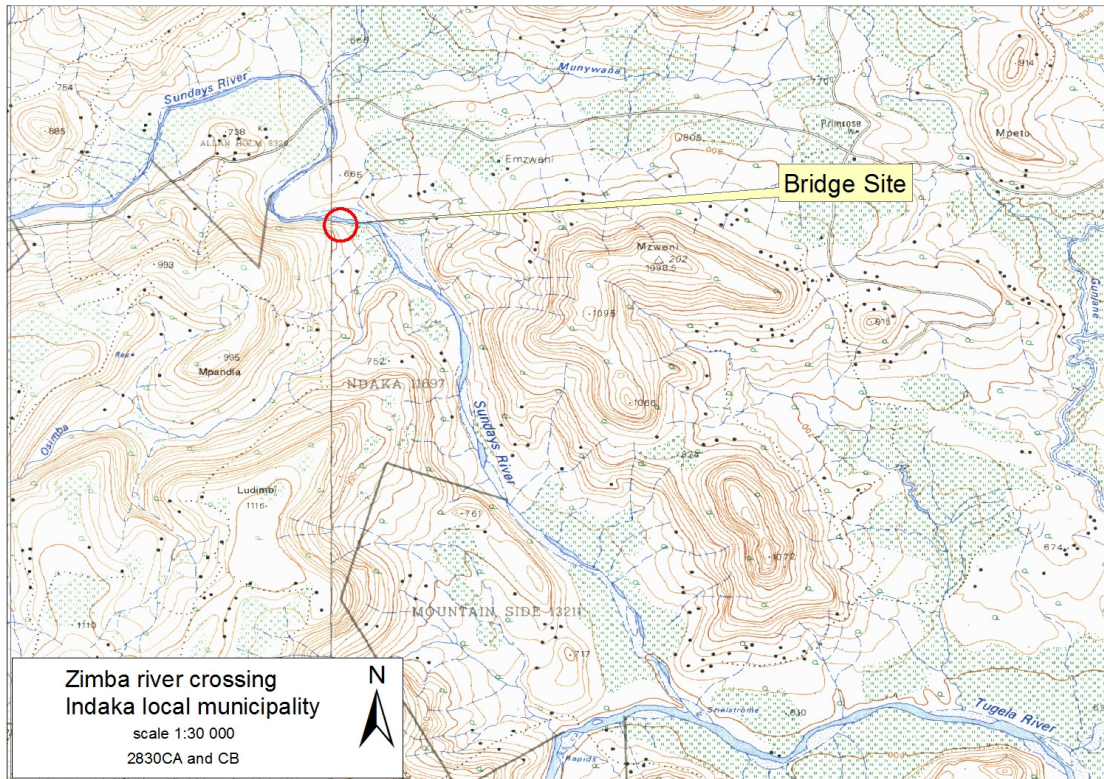


# ZIMBA CROSSING PALAEONTOLOGY REPORT

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**CLIENT**  
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**(HSG)**



## SUMMARY

**The presence of Fossils on this site is “Zero to Very low”.**

## **BACKGROUND**

It is proposed to construct a low level single lane concrete bridge across the Indaka (Sundays) river to serve the Zimba community, in the Indaka local municipality of KwaZulu-Natal. GPS coordinates:

*28° 38' 42.42" S & 30° 15' 09.40" E*

## **TERMS OF REFERENCE**

As part of this project a Desk-Top palaeontological report was required to establish the potential palaeontology on this site.

## **INFORMATION SUPPLIED**

1. BID document
2. Interim ROD
3. Location point (Google and map.)

## **METHODS**

This entailed the use of the following:

1. Internet search for available information
2. Inspection of relevant geological maps
3. Inspection of attached documents

#### 4. ZIMBA CROSSING

The proposed Indaka River crossing spans alluvial sediments 4m thick according to the geotech report (quoted in BID). The proposed crossing will be a maximum of 80m in length and fall within the Indaka River alluvial valley fill. The alluvial part of the Indaka River falls between the redlines (Fig. 1)



**Fig. 1: Location of the proposed Zimba Crossing on the Indaka (Sundays) river. The red lines mark the edge of the river alluvium.**

#### PALAEONTOLOGY

No fossils will be encountered. The site is underlain by Vryheid Formation sandstone of Permian Age (298.9 to 252.2 Ma)(International Chronostratigraphic Chart). The Vryheid Formation in this area, which it is proposed to cross, is fairly low down in the stratigraphy. This zone is generally believed to be Deltaic (Hobday, 1973). It may contain trace fossils but is very unlikely to contain any body fossils. Body fossils are very rare in this sandstone. Trace fossils may be present but these are very common. Glossopteris and Gangamopteris plant fossils are unusual at this stratigraphic level, and if encountered they tend to be poor specimens.

**CONCLUSION: The likelihood of finding fossils is zero in the first 4m of sediment and extremely unlikely at deeper levels within the Vryheid Formation sandstone.**

#### REFERENCE

Hobday, D.K. 1973. Middle Ecca deltaic deposits in the Muden-**Tugela Ferry** area of Natal. Geol. Soc. S. Afr. Trans. 76: 309–318