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12 April 2023

N.J. van Zyl
P.O. Box 255
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RE: OKIEP COPPER MINES (PTY) LTD (METOREX) MINING PERMIT APPLICATION, REMAINDER OF NABABEEP 134, NAMAQUALAND (11023MP)

Dear Klaas

Thank you for supplying the information pertaining to the application mine copper oxide alongside the so-called 'Glory Hole' at NababEEP (Figure 1). This letter provides a brief heritage review and argues that no further heritage work should be required for this project.

Introduction

The application area lies within an existing mining area and adjoins a large historical mining pit that is currently filled with water and which focused on the mining of sulphide ore. The newly proposed mining would target a small area of copper oxide. With an application area of 4.5 ha in extent. Mining is planned to proceed to a depth of 20 m. It is intended to mine from the southeast towards the existing excavation and leave a section of 10-15 m wide between the old and new excavations. No new infrastructure will be established since everything needed is already present within the adjacent mining town. Waste rock will be dumped into the existing 'Glory Hole'.

The application area

Figure 1 shows the local context of the application area on the north-eastern margin of NababEEP town and adjacent to the existing 'Glory Hole'. It is noted that much of the surface in and around the application area has previously been disturbed as a result of existing and historical mining activities. Figure 2 shows an attempt at mapping the disturbed areas from a study of aerial photography. This should be seen as a minimum since some disturbance is very likely not visible on aerial photography. The remainder is mountain slope and is expected to be covered in granite rocks and gravel.

History

Copper mining at NababEEP commenced when Philips & King bought the farm in 1852. Despite the copper bubble bursting by 1855, the NababEEP mine remained profitable and Phillips and King sold their company and assets to the *Cape of Good Hope Copper Mining Company Ltd* in 1862. The period 1888-1927, under the Cape Copper Company, is considered the height of operations. Although excavation of the 'Glory Hole'

commenced many years ago, extensive activity has occurred in recent decades with mining only ceasing there in 2004. This means that much of the disturbed land surface that is visible today relates to recent mining (Figures 3-5). It is particularly noticeable that the hole has been deepened since 1976.



Figure 1: Aerial view showing the application area (red polygon) within the Remainder of NababEEP 134 (black polygon).

Heritage resources

Archaeology and graves

Due to the exposed and high-lying nature of the area as well as to its geology, no archaeological materials or graves are expected to occur. Furthermore, much of the surface has been disturbed in recent years.

Palaeontology

The SAHRIS Palaeosensitivity map shows the entire study area to be of zero sensitivity (Figure 6). This is because it is all igneous rock (granite, gneiss, diorite, etc).

Built heritage

Although many historical structures are present in NababEEP, none occur within or very close to the study area. It is also notable that no historical mining infrastructure occurs within the study area.

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Figure 2: Aerial view showing the application area (red polygon) with all existing disturbed areas shaded in pink. These were determined based on examination of current and historical aerial photography.



Figure 3: 1958 (Job 408_010_08387) and modern (Google Earth) aerial views showing the change in and around the 'Glory Hole'.

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Figure 4: 1976 (Job 763_012_06566) and modern (Google Earth) aerial views showing the change in and around the 'Glory Hole'.

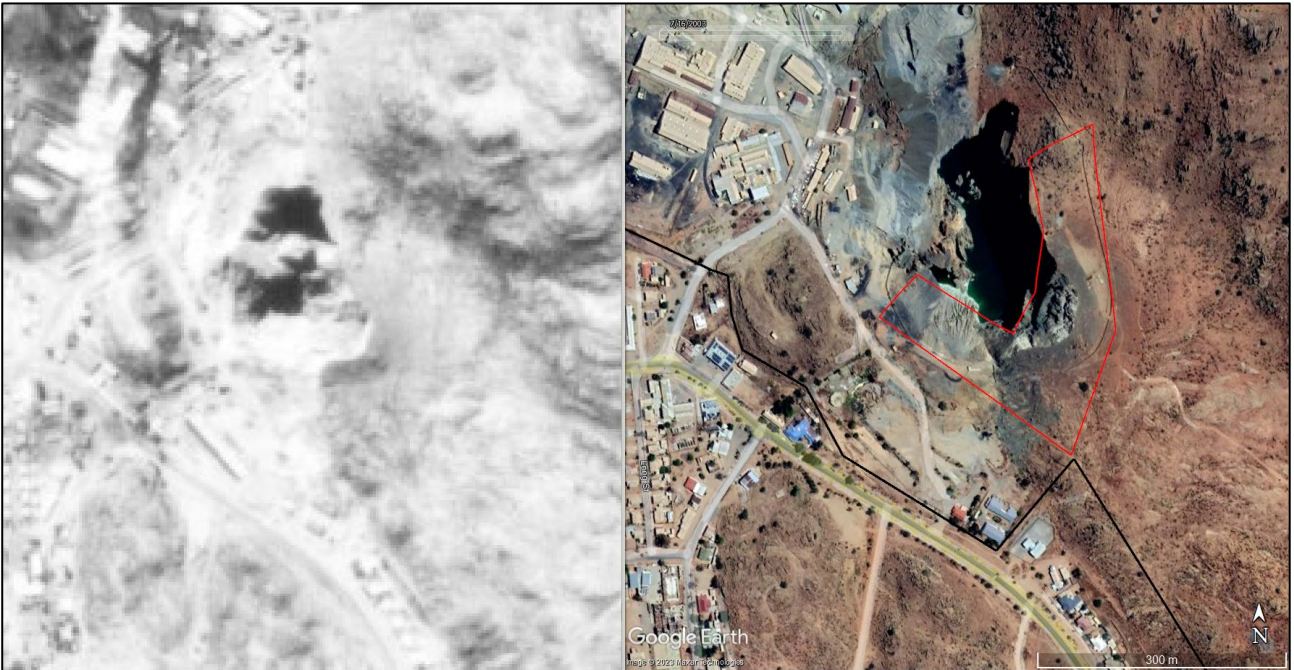


Figure 5: Close-up view from Figure 3 showing that the two excavations visible in 1976 have been joined, expanded northwards and deepened since 1976.



Figure 6: Extract from the SAHRIS Palaeosensitivity map showing the entire study area (yellow polygon) to be of zero sensitivity (grey shading).

Cultural landscape

The site and surrounding landscape are heavily transformed by mining and the proposed mining activity is thus in keeping with the existing cultural landscape. The 'Glory Hole' is a significant part of the landscape. Although waste rock will be dumped into the hole, it is evident that the quantity will be very small and that other waste rock has already been dumped there in the past.

Screening tool

The DFFE Screening Tool map for Archaeology and Cultural Heritage was also consulted. It shows a spot of high sensitivity in the western part of the study area. This spot is centred on a disturbed area that, in 2003, was beneath a mine dump (Figure 7). It is quite obvious that the screening tool map is incorrect. The vast majority of the town is greater than 60 years of age and it is possible that the spot refers to a random point allocated to the town, or to a structure within the town. It is clear that, aside from the fact that the 'Glory Hole' originated more than 60 years ago, there is no cultural heritage within the study area.




Figure 7: Screening tool map showing a spot of high sensitivity in the western part of the study area with a 2003 aerial view showing the centre-point of this spot to be in a mine dump.

Conclusion

From this brief review as well as previous experience working in the Namaqualand copper mining area, it is concluded that no impacts to heritage resources of any sort will occur as a result of the proposed mining. It is recommended that the mining permit application be authorised in full with no further heritage work being required.

Yours sincerely



Dr Jayson Orton