



20 November, 2021

Att: Ms Natasha Higgitt
SAHRA
PO Box 4637
Cape Town
8001

Dear Ms Higgitt,

ARCHAEOLOGICAL HERITAGE: PROPOSED LETTER OF EXEMPTION FROM FURTHER SPECIALIST STUDIES & MITIGATION

UPDATE OF THE EXISTING EMP FOR THE SWARTBERG FELDSPAR MINE NEAR VIOOLSDRIFT, NORTHERN CAPE

SAHRA CaseID: 16734

1. Introduction

ACRM was instructed by Site Plan Consulting, on behalf of Kamgab Minerale (Pty) Ltd to conduct a desktop screening study for the update of the existing Environmental Management Plan (EMP) for the Swartberg Feldspar Mine (Lot 226 Vioolsdrift Settlement) near Vioolsdrift, in the Namaqualand region of the Northern Cape (Figures 1-4). The Swartberg Mine is located approximately 47km north of Steinkopf along the N7, and 20km south of Vioolsdrift.

2. Project description

This project is already underway, and the application merely relates to the amendment/updating of the current EMP.

The following are the main component areas at the mine (refer to photos 1-6)

- The logistical facility area which includes office, workshop, water purification, wash bay, salvage yard, diesel tank and weighbridge facility.
- Main plant and plant residue site. Processing plant not in use at present.
- Main excavation currently being backfilled.
- Kloof Section excavation and overburden dump.
- Hostel and manager's accommodation

Mining is conducted as a surface mine hard rock drill and blast operation. Drilling is undertaken by a team using pneumatic handheld drills. The shot rock is collected from the floor by means of front-end loader and taken to the sorting platform for sorting of waste material. Mining of the Main Section excavation has ceased and mining at present only takes place in the more recently established Kloof Section (Figure 5).



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The proposal is to continue mining the Kloof Section, spoil overburden on the dump adjacent to that excavation, backfill the main (old) excavation through reprocessing of existing plant residue material and sorted material from the Kloof section, and to explore new sections within the Mining Right Area.

The excavation will extend from the current 0.7ha to measure maximum 3.7ha, whilst the 1.2ha waste rock dump will be expanded by 3.8ha to measure 5.0ha (for a total additional disturbance area of 6.8ha).

The proposed 30 year mine plan for the Kloof Section is as shown in Figure 6.

3. Approach to the study

A desk top study was undertaken that entailed a detailed search of the SAHRIS content management website.

4. Archaeological context

Historically, the interior of Namaqualand, was occupied by the Little Namaqua, a Khoekhoen pastoralist group who herded sheep and cattle and lived in temporary encampments of mat/grass huts. The Little Namaqua is known to have moved seasonally with their livestock and historical reports indicate that they may have followed a transhumance cycle between the Kamiesberg in the summer months and the Sandveld in the winter months (Webley 1992). Since the Little Namaqua had no clearly defined territorial boundaries, it was easy for the colonial Trekboers to settle in the area, when loan farms were granted after 1750. The Little Namaqua eventually retreated to so-called 'reserves' such as Leliefontein, Steinkopf, Kommaggas, Carolusberg, Concordia and the Richtersveld (Webley & Halkett 2010).

Archaeological research has been conducted on the banks of the Orange River, but these have taken place in the Richtersveld region of the Northern Cape (Halkett 1999; Smith et al 2001; Webley 1997; Orton & Halkett 2010). Research indicates that intensive hunter-gatherer occupation of the Namaqualand region started around four thousand years ago during the Later Stone Age, but most of our current information comes from the coastal zone (Webley 1992; Dewar 2007).

A search of SAHRIS (South African Heritage Information System) has shown that no archaeological work has been done in the area surrounding the Swartberg Mine, with the closest regional town being Springbok about 50kms further to the south. A Heritage Impact Assessment (HIA) for a large agricultural development on the banks of the Orange River near Henkries about 30kms east (as the crow flies) from Swartberg Mine, recorded a very small number of Later Stone Age (LSA) tools on the soft alluvial sands (Kaplan 2016).

Until fairly recently little archaeological work had taken place in the Springbok area, where most research has concentrated on the Namaqualand coast, the Richtersveld and further south in the Kamiesberg (Webley 1992). With the development of an emerging alternative energy industry, and improved infrastructure development, several Heritage Impact Assessments (HIA's) have taken place in Springbok and the surrounding area, with mixed results. For example, only three stone flakes were encountered over a large area during an HIA for a proposed wind energy farm near Springbok, where some faded rock art and a burial were also recorded (Kaplan 2010), while a few stone flakes were encountered in the proposed powerline servitude between Springbok and Nababeep during a field scoping assessment for the same study. Low density scatters of Later Stone Age quartz flakes, chunks, a few cores and utilized pieces were documented by Kaplan (2008) alongside



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DR2595 near Bulletrap about 15kms north of Springbok, during an assessment of several borrow pits. No pre-colonial archaeological remains were documented during scoping for a proposed water pipeline between Rooiwinkel and Nababeep north of Springbok (Kaplan 2011a) either, or between Okiep and Bulletrap alongside the N7 (Kaplan 2011b). A few stone tools and a possible grave were encountered by Smith (2013) during a HIA for a proposed solar energy farm near Carolusberg east of Springbok, while ephemeral scatters of stone tools, a stone walled Herder kraal, colonial-era artefacts and a grave were also encountered by Smith (2013b) during a HIA for a proposed solar energy farm near Nababeep. No archaeological resources were encountered by Gaigher (2012) during a HIA for a proposed solar energy farm south of Springbok, and no pre-colonial archaeological traces were encountered by Morris (2012) during a survey of the proposed upgrading of the Goegap Nature Reserve facilities a few kilometres south east of Springbok east. Isolated MSA and LSA tools were recorded during a study for a large, regional water supply scheme connecting the small surrounding towns of Okiep, Concordia and Carolusberg. Several graves/grave markers were also recorded, while a dispersed scatter of tools, pottery and a Herder kraal were recorded alongside a small stream bed north of Carolusberg (Kaplan 2016).

Indications are that the majority of the surveys so far undertaken, suggests a paucity of archaeological traces in the Springbok area of the Northern Cape.

4.1 Graves

It is unlikely that any graves or typical grave features occur in the application area, given that the footprint area has been severely transformed by historical mining operations.

5. Anticipated impact

Given the severely modified receiving environment (refer to photos 1-6), any potential impact of further mining operations on Pre-colonial archaeological resources is rated as being Low.

It is further noted that the bulk of proposed future mining/processing of Feldspar, will take place in already disturbed (i. e historically mined) areas.

6. Conclusion

Indications are that no important archaeological resources will be encountered in the footprint area of the Swartberg Feldspar Mine near Vioolsdrift.

While Stone Age implements may occur within the 30-year Mining Application Area, the significance of the finds are likely to be graded as Low.

7. Recommendations

Given the already severely transformed context of the receiving environment, and anticipated low impact significance of the mine on archaeological resources, there are no objections on archaeological grounds, to updating the existing Swartberg Mine EMP.

It is therefore recommended that exemption from further specialist archaeological studies and mitigation be granted.



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Figure 1. Locality Map



Figure 2. Google earth satellite map showing the regional context of the study site



Figure 3. Google satellite map showing the Swartberg Mine and surrounding land use



Figure 4. Close up Google satellite map of the Swartberg Mine Right Area

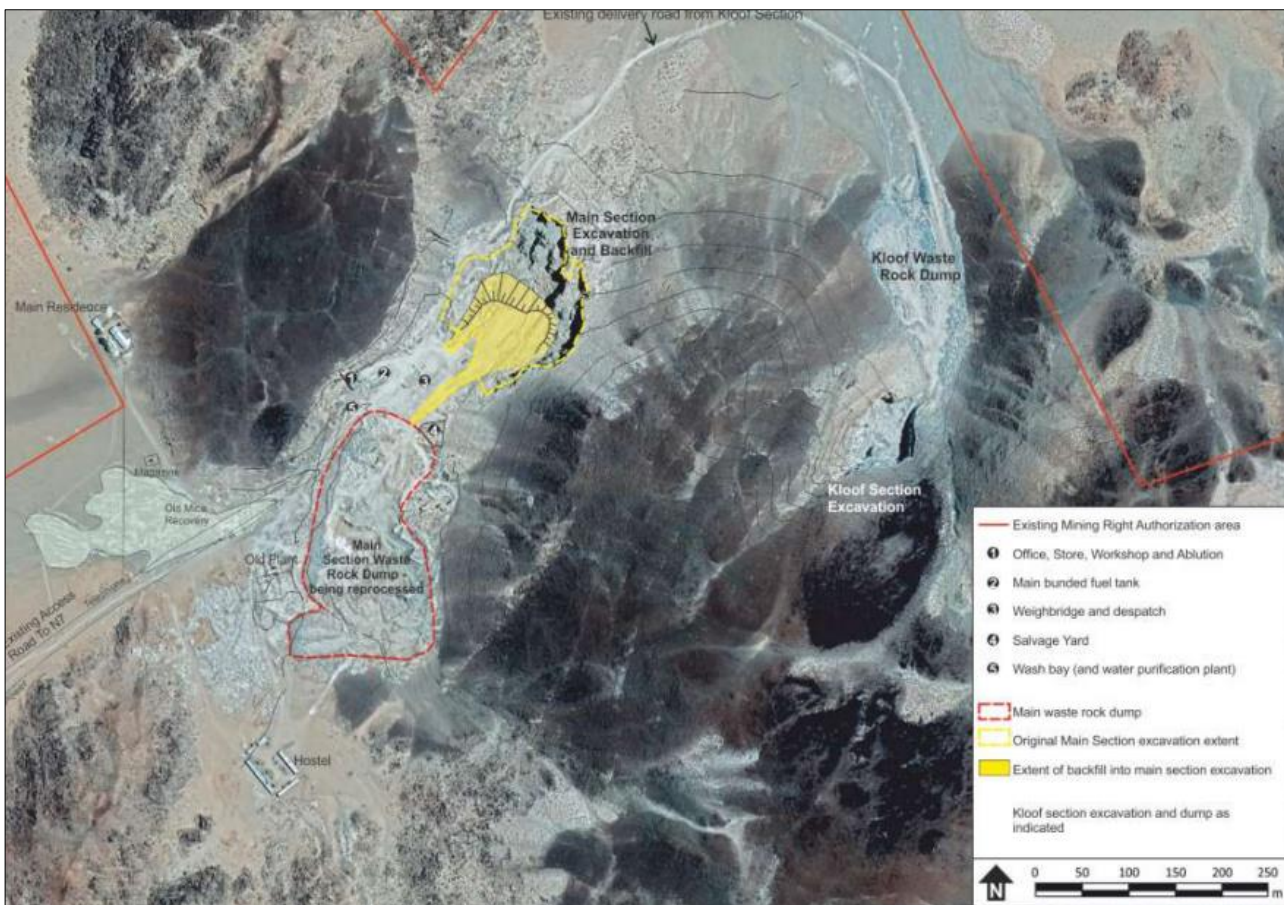


Figure 5. Existing Site Layout Plan for the Swartberg Feldspar Mine (Site Plan Scoping Report 2021)



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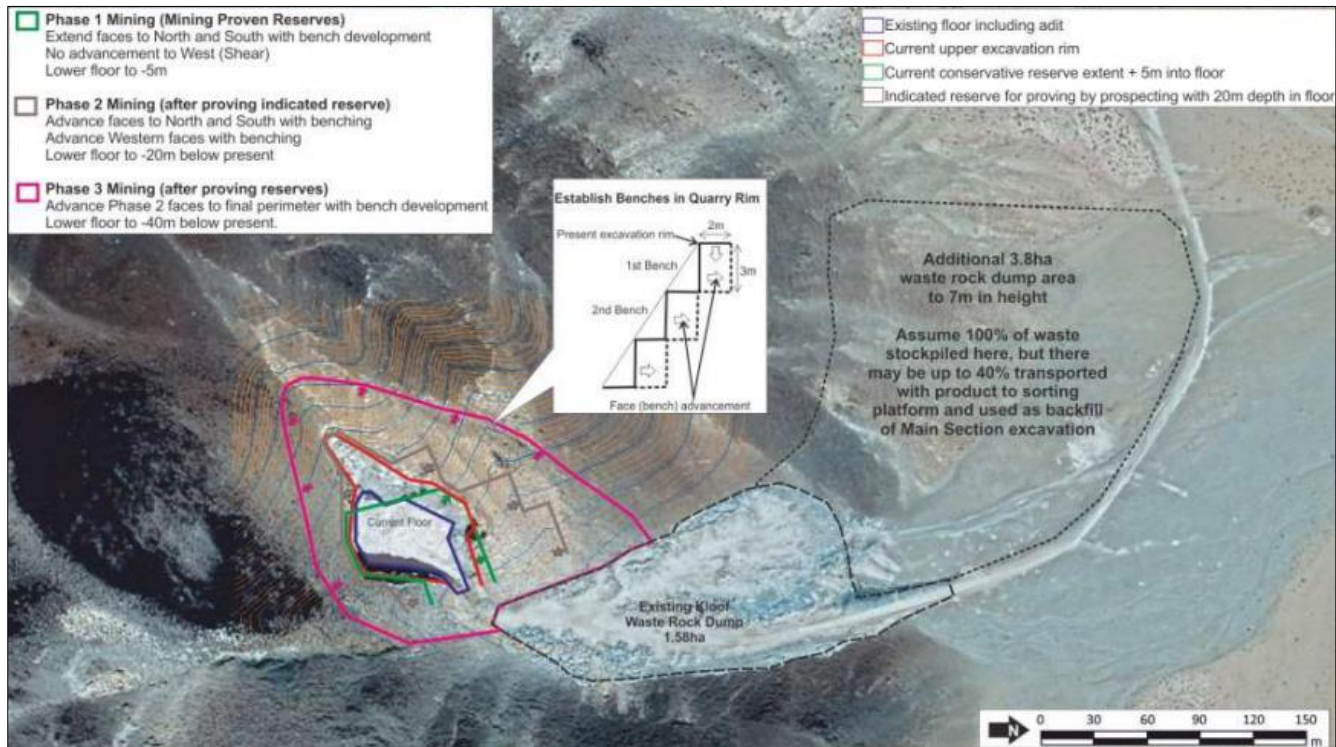


Figure 6. 30 year mine plan (Site Plan Scoping Report 2021.11.22)



Photo 1: General view of the main excavation and logistical facility looking north, with the hostel in the west and the main excavation in the east.



Photo 2: Looking west from the top of the Main Section excavation at the backfill which has taken place to date.



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Photo 3: General overview of the Kloof Section from the north showing the recent bench development (orange area) and just off picture right is the main overburden dump seen in Photo 5.



Photo 4: Looking NE from the slope above the hostel, showing the main plant residue dump being hollowed out from the inside for re-processing and backfilling of the main section excavation.



Photo 5: Looking north from the adit of the Kloof Section excavation at the main section access road and the existing waste dump.



Photo 6: Remnants of the old Processing Plant with the plant residue dump in the background being reprocessed from the east.