### Proposed development of a new foundry in Germiston, Gauteng

Our Ref: 17786



an agency of the Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za South African Heritage Resources Agency | 111 Harrington Street | Cape Town P.O. Box 4637 | Cape Town | 8001 www.sahra.org.za

Enquiries: Andrew Salomon

Tel: 021 462 4502

Email: asalomon@sahra.org.za

CaseID: 17786

Date: Wednesday July 06, 2022

Page No: 1

## **Final Comment**

In terms of Section 38 of the National Heritage Resources Act (Act 25 of 1999)

Attention: The Environmental Practice

The proposed new foundry will entail the following infrastructure and activities: Renovation of an existing building to house the foundry. Installation of a scrap pre-treatment system (sorting, separating, shredding, pre-heating) Installation of two 8 tonne reverberatory furnaces, each with a 10 tonne holding furnace, as well as one Vortex pump furnace with a 10 tonne holding furnace for scrap aluminium melting. 2000 tonnes per month of aluminium alloy will be produced from approximately 2400 tonnes of scrap. This will also involve a more targeted extraction of emissions. Aluminium alloy casting will use a belt conveyor mould system. Construction of a building on the eastern portion of the property for the recovery and storage of dross[1]. Approximately 10 - 15 % of the residual aluminium in the dross will be recovered and returned back to the alloying process. The remaining, unusable dross, is then further processed off-site before being disposed of. The dross recovery system will entail milling, screening and magnetic separation. A pollutant emissions abatement system will be installed. The system will include localized hood extraction above each of the furnaces, as well as an apex extraction system to extract fumes within the foundry building. The extracted fumes will pass through a bag filter before discharging via a stack of appropriate height to atmosphere. A 4 tonne furnace for melting scrap copper will be installed. 250 tonnes per month of scrap will be melted in order to produce 200 tonnes per month of copper. Weatherproof storage areas for the raw material, product and cool dross. A cooling tower to cool the water used to release the ingots from the moulds. This water is continuously reused in a closed loop. A weighbridge and scale for weighing receiving raw material. In terms of engineering services (water supply, stormwater management, electricity supply, sewerage reticulation), the facility will utilize existing municipal services and the existing site access points from Shaft Road. Importantly, no change of character to the site is anticipated.

Lavin, J. January 2022. Heritage Screener: Proposed development of a new foundry in Germiston, Gauteng

The proposed development entails development of a foundry. The proposed new foundry will entail the following infrastructure and activities:

Renovation of an existing building to house the foundry. Installation of a scrap pre-treatment system (sorting, separating, shredding, pre-heating). Installation of two 8 tonne reverberatory furnaces, each with a 10 tonne

### Proposed development of a new foundry in Germiston, Gauteng

Our Ref: 17786



an agency of the Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za South African Heritage Resources Agency | 111 Harrington Street | Cape Town P.O. Box 4637 | Cape Town | 8001 www.sahra.org.za

Enquiries: Andrew Salomon

Tel: 021 462 4502

Email: asalomon@sahra.org.za

CaseID: 17786

holding furnace, as well as one Vortex pump furnace with a 10 tonne holding furnace. Construction of a building on the eastern portion of the property for the recovery and storage of dross. A 4 tonne furnace for melting scrap copper will be installed. Weatherproof storage areas for the raw material, product and cool dross. A cooling tower to cool the water used to release the ingots from the moulds. A weighbridge and scale for weighing receiving raw material. In terms of engineering services (water supply, stormwater management, electricity supply, sewerage reticulation), the facility will utilize existing municipal services and the existing site access points from Shaft Road. No change of character to the site is anticipated.

Page No: 2

Date: Wednesday July 06, 2022

The author notes that no sites, features or objects of cultural significance were identified.

The SA Palaeontological Sensitivity Map indicates that the study area has Low fossil sensitivity.

#### **Final Comment**

SAHRA Archaeology, Palaeontology and Meteorites Unit has no objections to this proposed development, provided that the recommendations in the specialist reports and this comment are adhered to, and in addition. on the following conditions:

- No palaeontological assessment is required, however a protocol for finds is required.
- If any evidence of archaeological sites or remains (e.g., remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments and charcoal/ash concentrations) or palaeontological remains are found during the proposed activities, SAHRA must be alerted immediately, and a professional archaeologist or palaeontologist, based on the nature of the finds, must be contacted as soon as possible to inspect the findings. If the newly discovered heritage resources prove to be of significance a Phase 2 rescue operation might be necessary.

If any unmarked human burials are uncovered and the archaeologist called in to inspect the finds and/or the police find them to be heritage graves, mitigation may be necessary and the SAHRA Burial Grounds and Graves (BGG) Unit must be contacted for processes to follow.

Should the project be granted Environmental Authorisation, SAHRA must be notified and all relevant documents submitted to the case on SAHRIS.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

## Proposed development of a new foundry in Germiston, Gauteng

Our Ref: 17786



an agency of the Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za South African Heritage Resources Agency | 111 Harrington Street | Cape Town P.O. Box 4637 | Cape Town | 8001 www.sahra.org.za

**Enquiries: Andrew Salomon** Date: Wednesday July 06, 2022

Page No: 3

Email: asalomon@sahra.org.za

CaseID: 17786

Tel: 021 462 4502

Andrew Salomon

Heritage Officer: Archaeology

South African Heritage Resources Agency

auma.

Phillip Hine

Manager: Archaeology, Palaeontology and Meteorites Unit

South African Heritage Resources Agency

#### ADMIN:

Direct URL to case: https://sahris.sahra.org.za/node/591133

# Terms & Conditions:

- 1. This approval does not exonerate the applicant from obtaining local authority approval or any other necessary approval for
- 2. If any heritage resources, including graves or human remains, are encountered they must be reported to SAHRA immediately.
- 3. SAHRA reserves the right to request additional information as required.