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26 August, 2020

Attention: Ms Nokukhanya Khumalo (nkhumalo@sahra.org.za)  
SAHRA Case Officer Mpumalanga  
South African Heritage Resources Agency (SAHRA)

Dear Ms Khumalo

**RE: THE RECTIFICATION OF THE UNLAWFUL COMMENCEMENT OF A LISTED  
ACTIVITY: THE ESTABLISHMENT OF AN ASPHALT PLANT ON PORTION 57 OF THE  
FARM STRATHMORE 214, NELSPRUIT DISTRICT, MPUMALANGA.**

**1. Introduction**

Turn 180 Environmental Consultants was appointed by At Road Construction (Pty) Ltd as Environmental Assessment Practitioner to manage the Section 24G rectification process for an established but not operational Asphalt Plant, Nelspruit District, Mpumalanga. As part of the process HCAC was appointed to provide an assessment of the impact on possible heritage resources.

The Asphalt plant is located within the footprint of a active Magnesite mine in an area that is totally degraded. The extensive surface mining activities would have obliterated any surface indicators of heritage sites or features if any ever occurred in the area before the construction of the Asphalt Plant. The area has been mined from the 1960 and surveys in the surrounding area (Van Schalkwyk 2002 and 2007) did not record any sites that are conservation worthy. It is unlikely that the unlawful activities associated with the Asphalt plant impacted on any sites of significance and it is recommended that the project is exempted from a Heritage Impact Assessment or further mitigation work.

## 2. Project Background

The Asphalt Plant is located on Portion 57 of the farm Strathmore 214, Nelspruit District, Mpumalanga at the following coordinates: 25°31'55.52"S and 31°27'2.48"E (Figure 1-1 to 1-4). The project is located on approximately 1.4 ha within the footprint of an extensive Magnesite mine that is no longer in use. No indigenous vegetation was cleared for the establishment of the Asphalt Plant, as the site was significantly disturbed prior to the establishment of the Plant.

Although the Asphalt Plant has been established on site, it is not yet in operation. The Plant has the capacity to store approximately 296 000 L dangerous goods on site in the form of diesel (1 × 23 000L tank), Paraffin (1 × 23 000 L tank), bitumen (approximately 204 000 L) and Heavy Fuel Oil (HFO) (2 × 23 000L tanks).

The basic operation of the Asphalt Plant includes heating raw aggregate inside a dryer bin using a diesel burner and is then screened and separated and stored in different bins. The aggregate is then weighed and mixed with heated bitumen where the final product (asphalt) then gets stored in silos or transported site.

Turn 180 Environmental Consultants will apply for authorisation for the following activities: GN. R. 327 of the 2014 EIA Regulations as amended:

- Activity 14 – *“The development and related operation of facilities or infrastructure, for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.”*

GN. R. 325 of the 2014 EIA Regulations as amended:

- Activity 6 – *“The development of facilities or infrastructure for any process or activity which requires a permit or license or an amended permit or license in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent”.*

GN. R. 893 of the NEM:AQA 2013 Regulations:

- *Category 5: Mineral Processing, Storage and Handling, Subcategory 5.10: Macadam Preparation - “Permanent facilities used for mixtures of aggregate; tar or bitumen to produce road-surfacing materials.”*

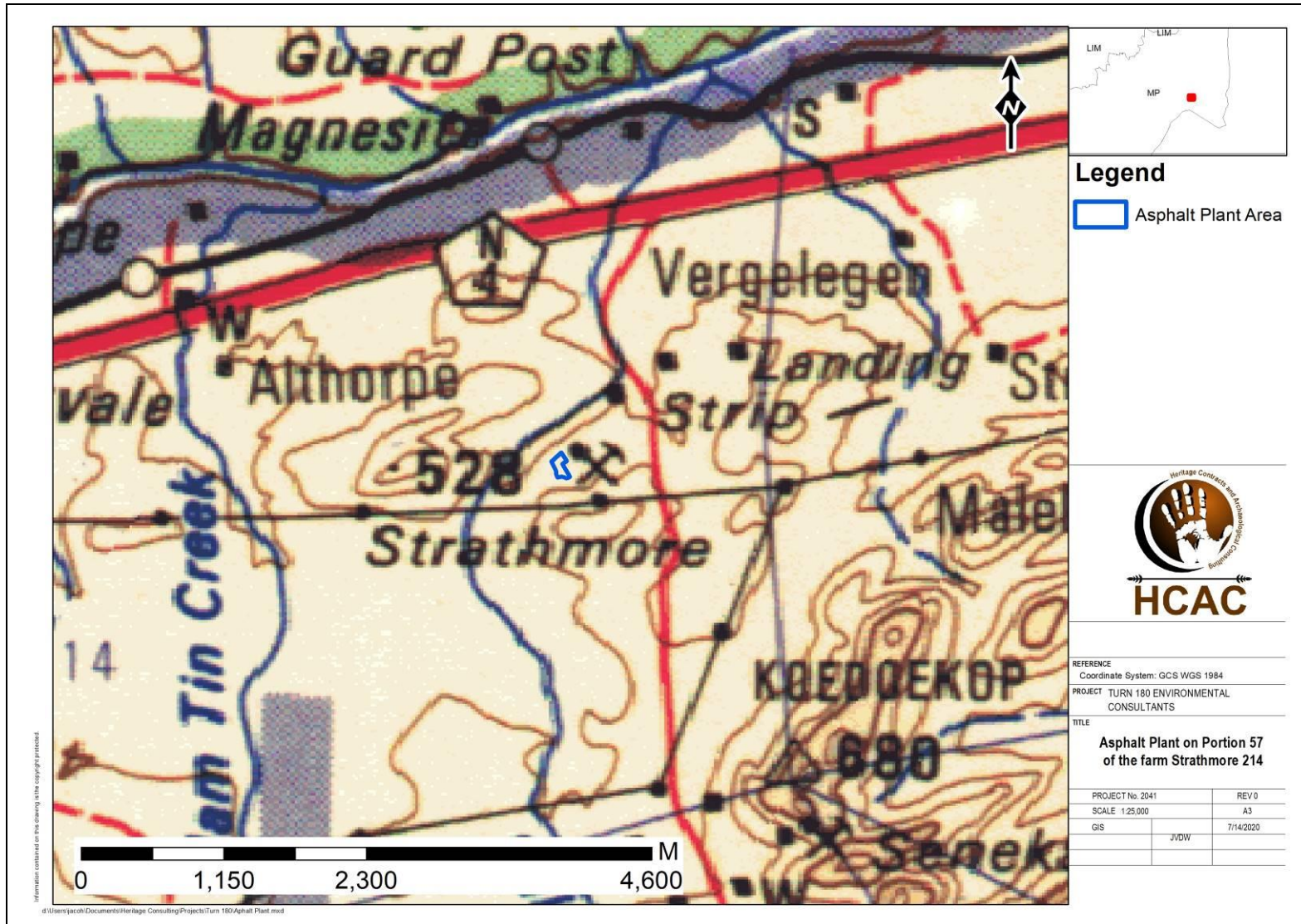


Figure 0-1. Regional setting (1: 250 000 topographical map).

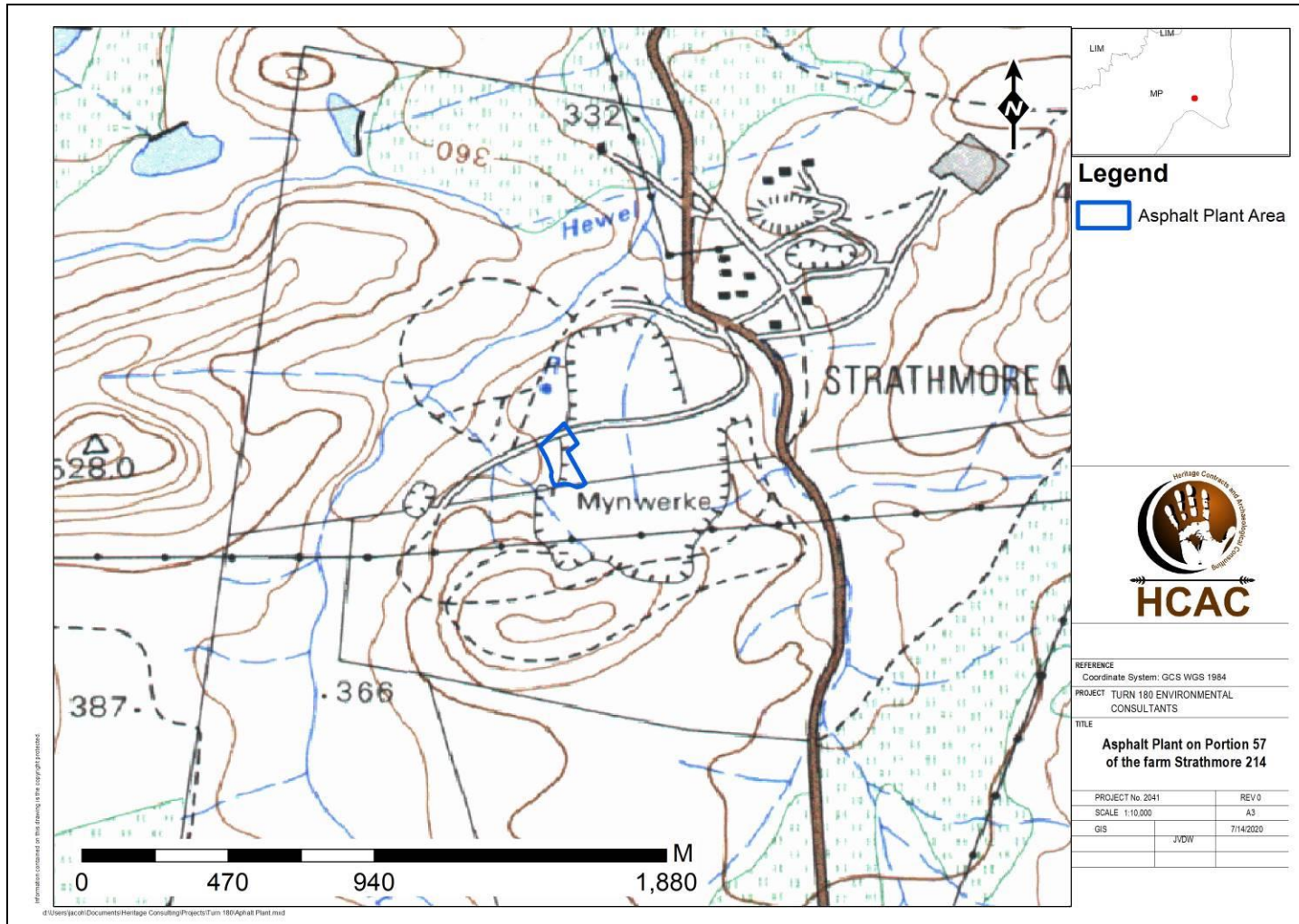


Figure 0-2. Local setting of the project (1: 50 000 topographical map).



Figure 0-3. Google image of the study area. Note the extensive disturbance of previous mining activities.

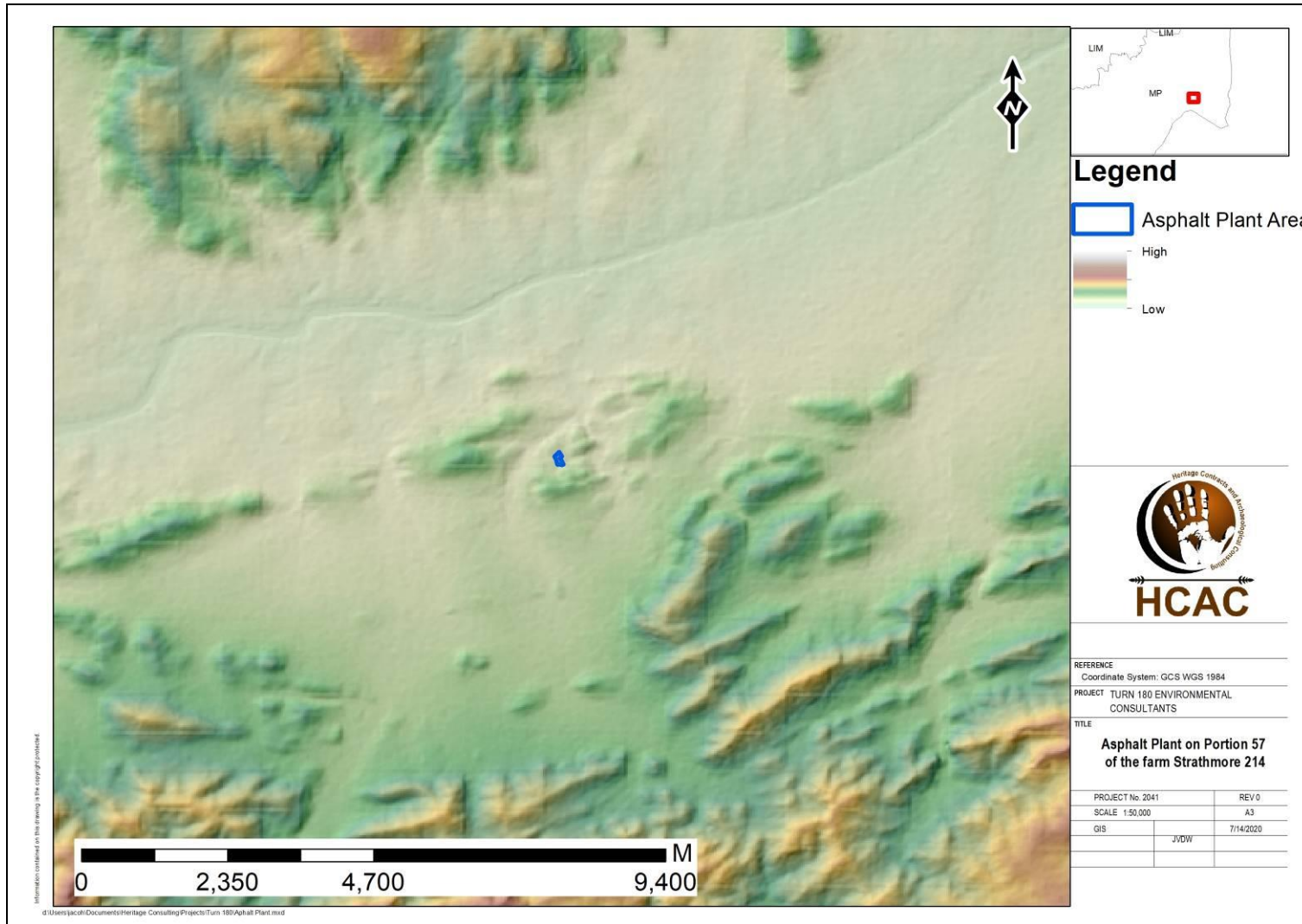


Figure 0-4. Environmental setting of the project.

### 3. The Heritage Character of the Study area

#### 3.1. Literature review

The following studies were conducted in the general vicinity of the project and were consulted for this report:

| Author              | Year | Project   | Findings   |
|---------------------|------|---|--|
| Andre, M.           | 2016 | N4 8X Section 11 and 12 Road widening   | The project was exempted from heritage studies due to prior disturbance of the area and limited impact of the project. |
| Van Schalkwyk, J.A. | 2007 | Heritage Impact Assessment for The Proposed Development on The Farm Stentor Reservaat 656JU, Mpumalanga   | Possible historical structure and grave.   |
| Van Schalkwyk, J.A. | 2002 | Archaeological Survey of a Section of the Secunda-Mozambique Gas Pipeline, Barberton District, Mpumalanga | Potsherds as well as rock art and Stone Age artefacts in the larger area.  |

#### 3.2. Historical Background

The first modern inhabitants of Mpumalanga, known as the San were a nomadic people who lived together in small family groups and relied on hunting and gathering of food for survival. Evidence of their existence is to be found in numerous rock shelters throughout Eastern Mpumalanga where some of their rock paintings are still visible. A number of these shelters have been documented throughout the Province (Bornman, 1995; Schoonraad in Barnard, 1975; Delius, 2007). San paintings in Mpumalanga usually red and black or sometimes white. It has been argued that the red ochre source for some of these paintings is to be found at Dumaneni, near Malelane (Bornman, 1995). According to Murray and Schoonraad (in Barnard, 1975) rock art sites are well known in the Nelspruit area with four known sites in the Crocodile Valley.

Several Early Iron Age site are known from the province for example the Plaston site, a settlement close to White River (Evers, 1977) and in Nelspruit where the Riverside Government complex is currently situated (Huffman, 1998). Other well-known EIA sites from the wider area include Hazyview and Friedenheim (Bornman, 1979). The later phases of the Iron Age (AD 1600-1800's) is represented by various tribes including Ndebele, Swazi, BaKoni, Pedi marked by extensive stonewalled settlements found throughout the escarpment and particularly around Lydenburg, Badfontein, Sekhukuneland, Roosenekal and Steelpoort. Smaller tribes such as the Pai and Pulana were attacked by and made to flee from the aggressive Swazi, especially during the *mfecane* (difaqane). The Swazi were particularly active in the Lowveld during the difaqane period (1820's) and it is well-known that they frequently attacked and ousted smaller herder groups like the Pai and Pulana. They were however prevented from settling in the low-lying areas due to the presence of the tsetse fly and malaria. Consequently, there is little evidence of large-scale settlement in the Crocodile River valley until the time of colonial settlement (1890's) and later.

### 3.3. Cultural Landscape

The project is in an area that has been extensively mined from prior to 1968 with mining activities indicated until present (Figure 2-1 – 2-3).

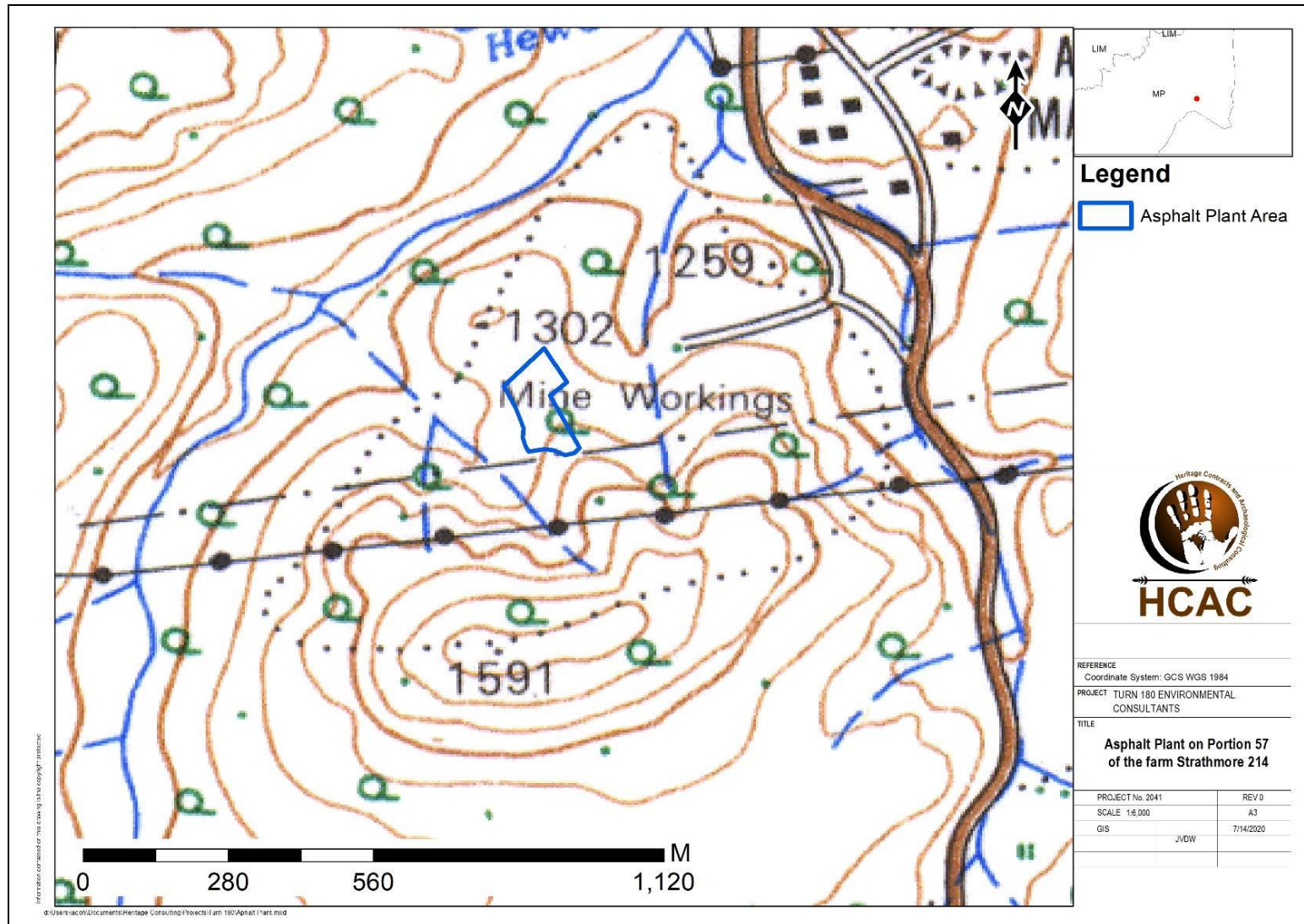


Figure 0-1. 1968 Topographical map of the study area. The area was subjected to mining developments from prior to 1968.



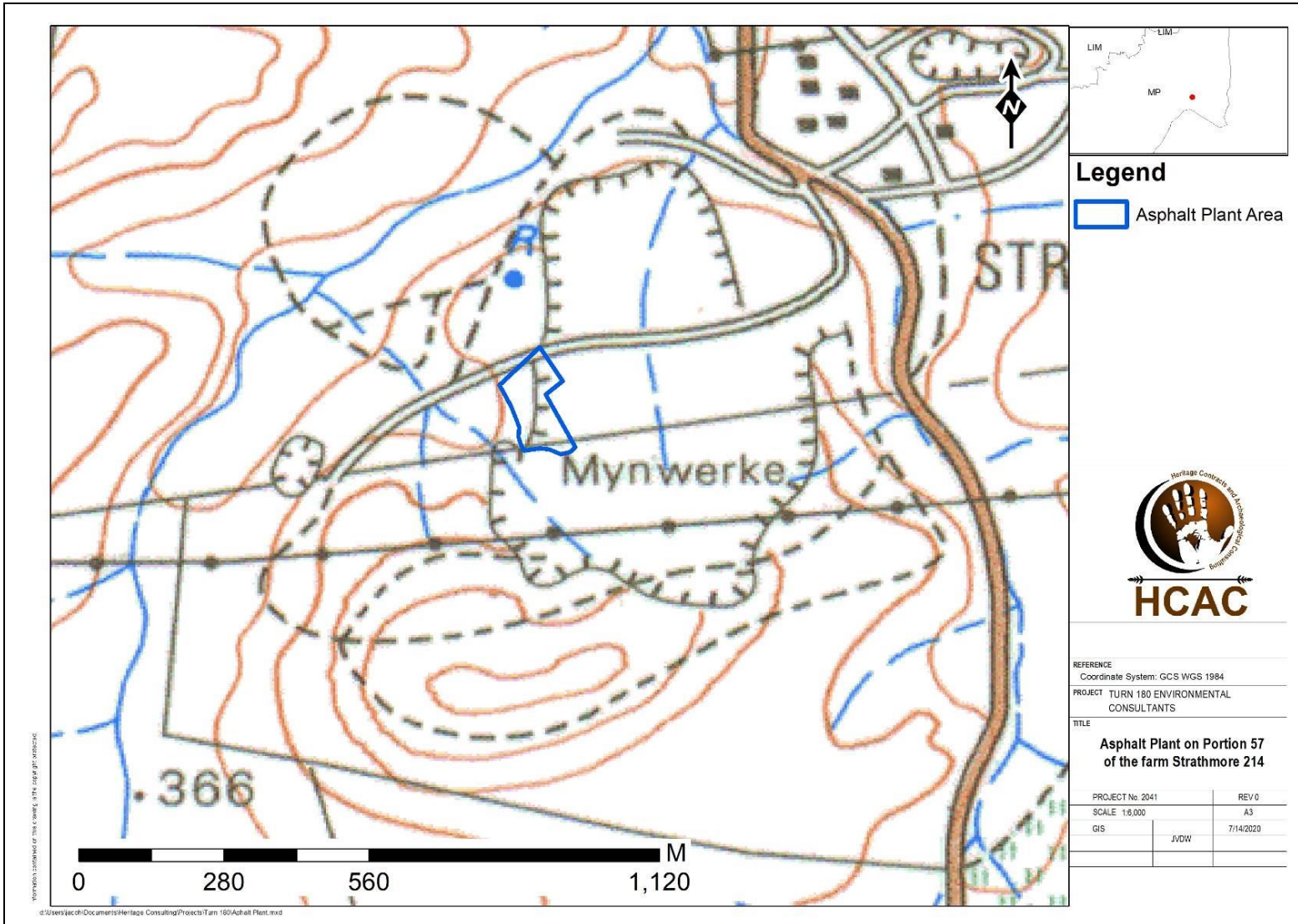


Figure 0-2. 1984 Topographical map of the impact area indicated mining activities.

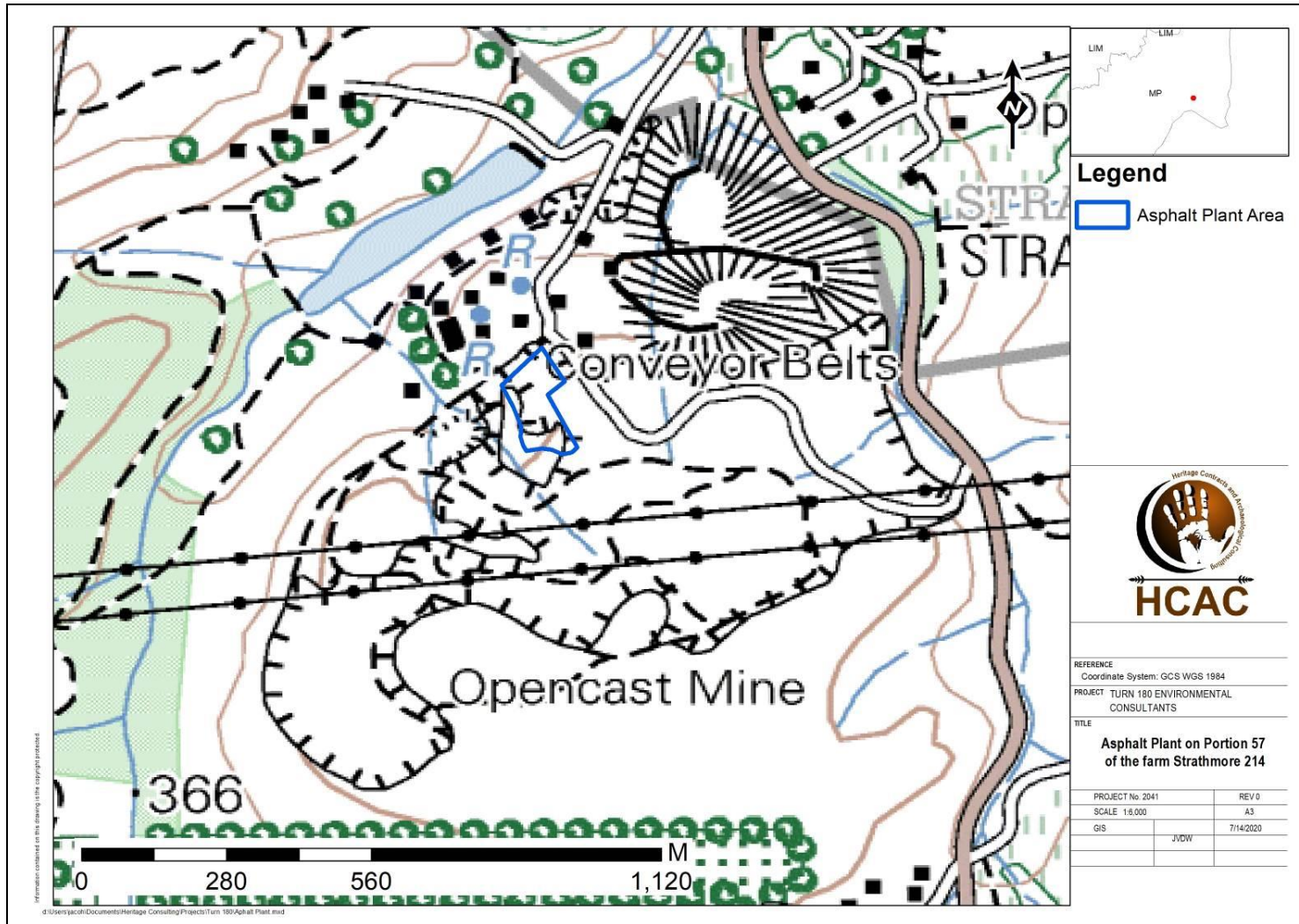


Figure 0-3. 2003 Topographical map of the impact area indicating extensive mining activities.

#### 4. Findings

The project is located on approximately 1.4 ha within the footprint of an extensive Magnesite mine. No indigenous vegetation was cleared for the establishment of the Asphalt Plant, as the site was significantly disturbed prior to development.

The area has been impacted on by mining activities from prior to 1968 as indicated on topographic maps (Figure 2-1) and the area is cleared, levelled, and excavated for the existing Magnesite mine (Figure 3-1 to 3-12). These developments related to the mine would have obliterated any surface indicators of heritage resources if any ever occurred in the study area prior to the establishment of the Asphalt Plant and it is unlikely that the unlawful activities associated with the Asphalt plant impacted on any sites (e.g., buildings, graves or archaeological features) of significance and no further mitigation is needed.



Figure 0-1. General site conditions prior to the establishment of the Asphalt Plant.



Figure 0-2. The site was cleared prior to establishment.



Figure 0-3. General site conditions prior to establishments.



Figure 0-4. General site conditions prior to establishment.



Figure 0-5. Current site conditions



Figure 0-6. Current site conditions



Figure 0-7. Current site conditions



Figure 0-8. Current site conditions



Figure 0-9. Current site conditions



Figure 0-10. Current site conditions.



Figure 0-11. Current site conditions



Figure 0-12. Current site conditions.

The study area is also indicated as of insignificant palaeontological significance on the SAHRA paleontological map (Figure 3-13) and no impacts to palaeontological resources would have occurred during the development of the project.



Figure 0-13. Paleontological sensitivity of the approximate study area (red star) as indicated on the SAHRA Paleontological Map (Key below)

| Colour        | Sensitivity        | Required Action   |
|---------------|--------------------|---|
| RED           | VERY HIGH          | Field assessment and protocol for finds is required   |
| ORANGE/YELLOW | HIGH               | Desktop study is required and based on the outcome of the desktop study, a field assessment is likely                               |
| GREEN         | MODERATE           | Desktop study is required   |
| BLUE          | LOW                | No palaeontological studies are required however a protocol for finds is required   |
| GREY          | INSIGNIFICANT/ZERO | No palaeontological studies are required  |
| WHITE/CLEAR   | UNKNOWN            | These areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map. |

## 5. Conclusion

From a heritage perspective the study area is of low heritage significance and has been impacted upon by the development of a Magnesite mine since the 1960's. The impact of earth moving and mining activities would have obliterated any indicators of heritage resources if any occurred in the study area. The study area is also of insignificant paleontological sensitivity. It is unlikely that the unlawful activities associated with the Asphalt plant impacted on any sites of significance and it is recommended that the project is exempted from a Heritage Impact Assessment or further mitigation work based on approval from SAHRA.

Any further queries can be forwarded to Jaco van der Walt on Cell: +27 82 373 8491 or to [jaco@heritageconsultants.co.za](mailto:jaco@heritageconsultants.co.za).

A handwritten signature in black ink, appearing to read 'Jaco van der Walt', with a large, stylized initial 'J'.

Jaco van der Walt  
Archaeologist  
Heritage Contracts and Archaeological Consulting CC (HCAC)

## 6. References

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