

**Cultural Heritage Survey of Xstrata Eastern Mines, Magareng Phase II,
Steelpoort Valley, Mpumalanga**

For

AGES Environmental (Gauteng)

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Executive Summary

Apart from certain sections, most of the survey areas are situated along existing roads and already disturbed areas.

Stone Age & Iron Age settlements

No Stone Age or Iron Age settlements, structures, features or artefacts were recorded during the survey.

Buildings

No historical buildings, structures or features were recorded during the survey.

Also note the following:

- It should be kept in mind that archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during construction activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place (*cf.* **NHRA (Act No. 25 of 1999)**, Section 36 (6)).

Definitions

Midden: Refuse that accumulates in a concentrated heap.

Stone Age: An archaeological term used to define a period of stone tool use and manufacture (see Table 3)

Iron Age: An archaeological term used to define a period associated with domesticated livestock and grains, metal working and ceramic manufacture (see Table 3)

1. Introduction

The aim of this cultural heritage survey is to record and document cultural heritage remains consisting of visible archaeological and historical artefacts, structures (including graves) and settlements of cultural significance within the boundaries of the proposed expansion of and additions to Xstrata Eastern Mine. This report was requested by AGES Environmental (Gauteng).

2. Terms of Reference

The terms of reference of this survey are as follows:

- * Provide a detailed description of all archaeological artefacts, structures (including graves) and settlements
- * Estimate the level of significance/importance of the archaeological remains within the area
- * Assess any possible impact on the archaeological and historical remains within the area emanating from the proposed development activities
- * Propose possible mitigation measures provided that such action is necessitated by the development

3. Nature of the Proposed Activity or Development

The existing mining activities at Xstrata Eastern Mine (Magareng Phase II) will be expanded to incorporate the following:

- A waste rock dump
- Topsoil dump
- Offices
- Sewage treatment works
- Water reservoir
- Plant
- Underground operations
- Associated infrastructure

In addition to these the following infrastructure will be added:

- Pipeline to the north of the site, total distance: 2.6 km
- Pipeline to the south, total distance: 1.3 km
- Electrical lines and conveyor to the west and south of site, total distance: 2.2 km

4. Definitions and Approach

- Archaeological remains can be defined as human-made objects, which reflect past ways of life, deposited on or in the ground.
- Heritage resources have lasting value in their own right and provide evidence of the origins of South African society and they are valuable, finite non-renewable and

irreplaceable.

- All archaeological remains, artificial features and structures older than 100 years and historic structures older than 60 years are protected by the relevant legislation, in this case the **National Heritage Resources Act (NHRA) (Act No. 25 of 1999)**. The Act makes an archaeological impact assessment as part of an EIA and EMPR mandatory. No archaeological artefact, assemblage or settlement (site) may be moved or destroyed without the necessary approval from the **South African Heritage Resources Agency (SAHRA)**. Full cognisance is taken of this Act in making recommendations in this report.
- Cognisance will also be taken of the **Mineral and Petroleum Resources Development Act (Act No 28 of 2002)** and the **National Environmental Management Act (Act No 107 of 1998)** when making any recommendations.
- Human remains older than 60 are protected by the **National Heritage Resources Act**, with reference to Section 36. Human remains that are less than 60 years old are protected by the **Human Tissue Act (Act 65 of 1983 as amended)**.
- **Mitigation guidelines:**

Significance Rating	Action
Not protected	1. None
Low	2a. Recording and documentation (Phase 1) of site adequate; no further action required
	2b. Controlled sampling (shovel test pits, auguring), mapping and documentation (Phase 2 investigation); permit required for sampling and destruction
Medium	3. Excavation of representative sample, C ¹⁴ dating,), mapping and documentation (Phase 2 investigation); permit required for sampling and destruction [including 2a & 2b]
High	4a. Nomination for listing on Heritage Register (National, Provincial or Local) (Phase 2 & 3 investigation); site management plan; permit required if utilised for education or tourism 4b. Graves: Locate demonstrable descendants through social consulting; obtain permits from applicable legislation, ordinances and regional by-laws; exhumation and reinterment [including 2a, 2b & 3]

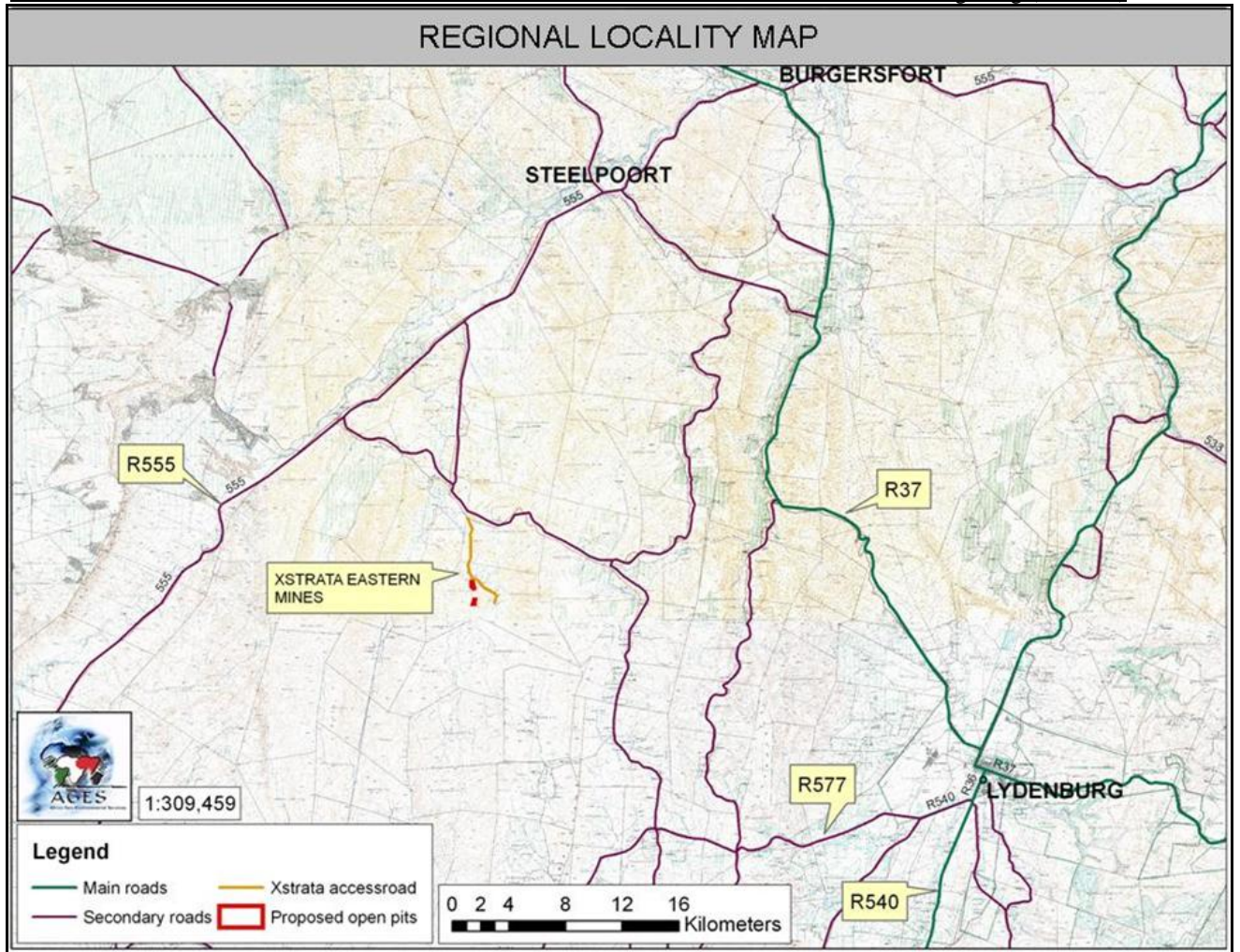
- Rating the **significance of the impact** on a historical or archaeological site is linked to the significance of the site itself. If the significance of the site is rated high, the significance of the impact will also result in a high rating. The same rule applies if the significance rating of the site is low.
- With reference to the evaluation of sites, the certainty of prediction is definite, unless stated otherwise.

- The guidelines as provided by the **NHRA (Act No. 25 of 1999)** in Section 3, with special reference to subsection 3, and the Australian ICOMOS Charter (also known as the Burra Charter) are used when determining the cultural significance or other special value of archaeological or historical sites.
- It should be kept in mind that archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during construction activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place (*cf.* **NHRA (Act No. 25 of 1999)**, Section 36 (6)).
- A copy of this report will be lodged with the **South African Heritage Resources Agency (SAHRA)** as stipulated by the National Heritage Resources Act (NHRA) (Act No. 25 of 1999), Section 38 (especially subsection 4).
- Note that the final decision for the approval of permits, or the removal or destruction of sites, structures and artefacts identified in this report, rests with the South African Heritage Resources Agency (SAHRA) (or relevant PHRA).

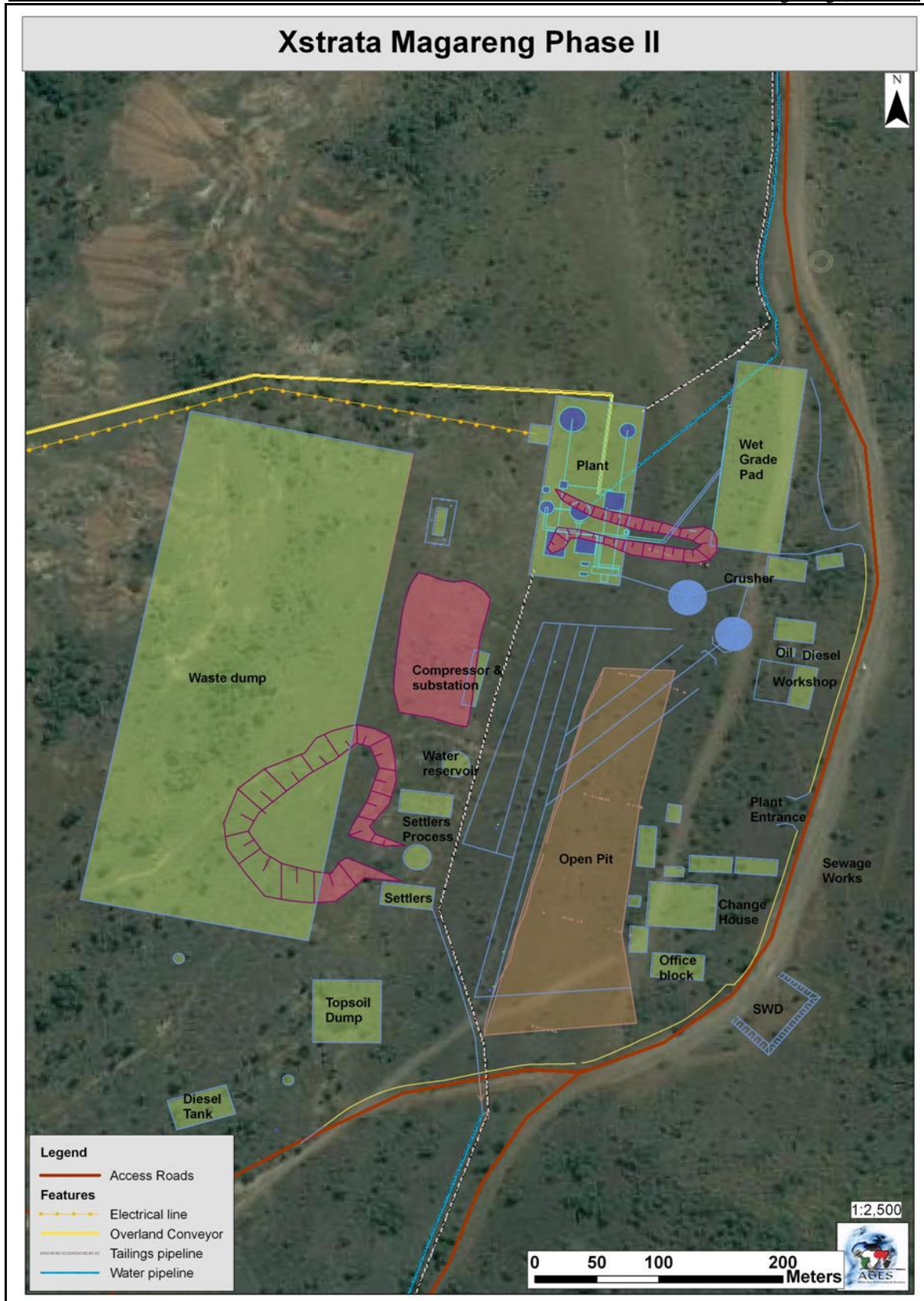
5. Methodology

5.1 Maps and Other Sources

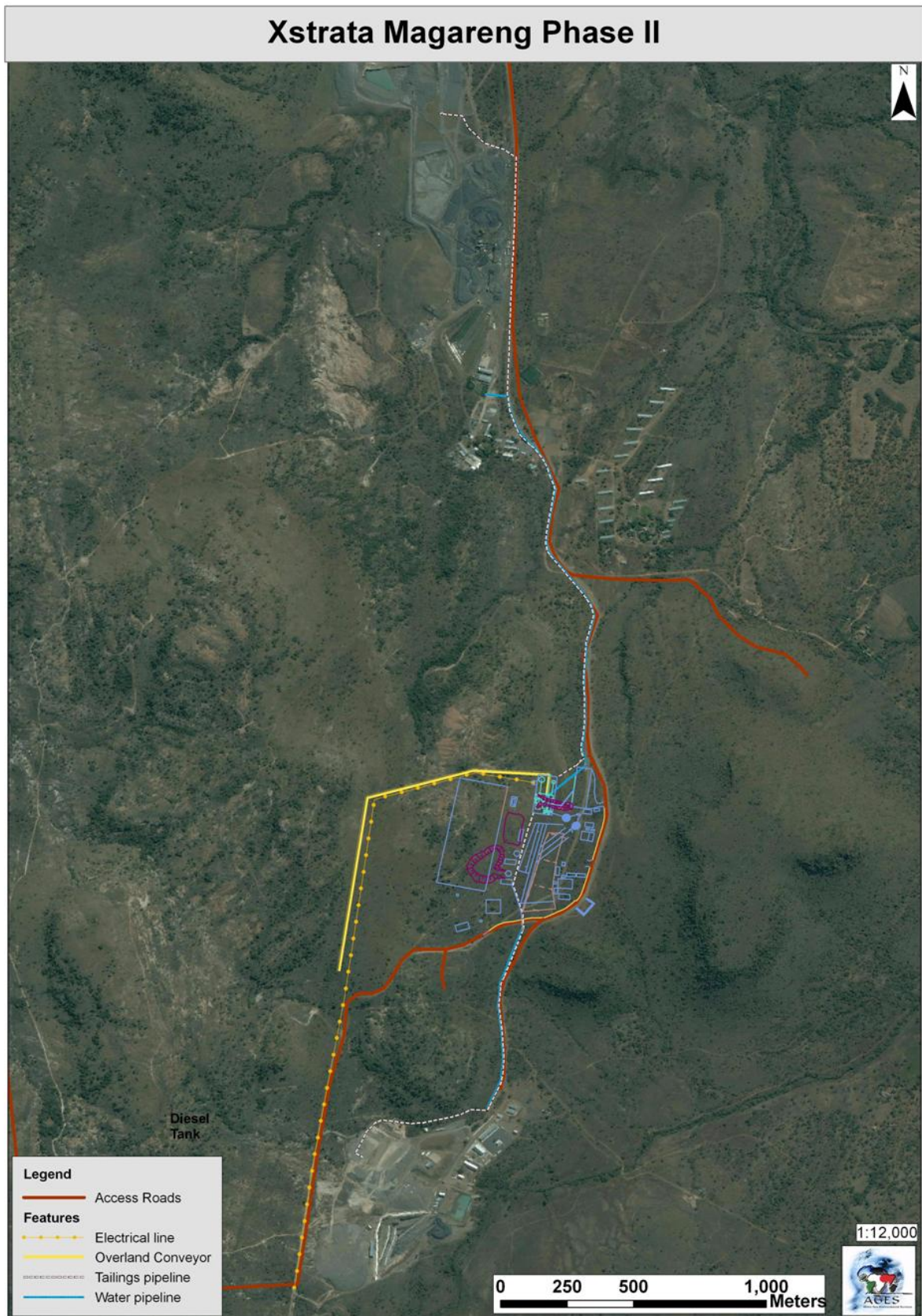
The survey area is localised by using maps supplied by the client.



Map 1: Geographical context of survey area



Map 2: Proposed areas of expansion



Map 2: Location of additional infrastructure

5.2 Fieldwork

A pedestrian survey was conducted on 20 August 2009 of all the affected areas.

5.3 Visibility and Constraints

Although no severe restrictions were encountered, the central survey area is mountainous and in places severely overgrown. Also note that due to the subterranean nature of cultural remains this report should not be construed as a record of all archaeological and historic sites in the area.

6. Description of Study Area

The survey area is 36 hectares in extent and characterised by rocky outcrops and low lying areas. However, the survey area is currently dominated by the existing quarry (Magareng) and associated access roads.

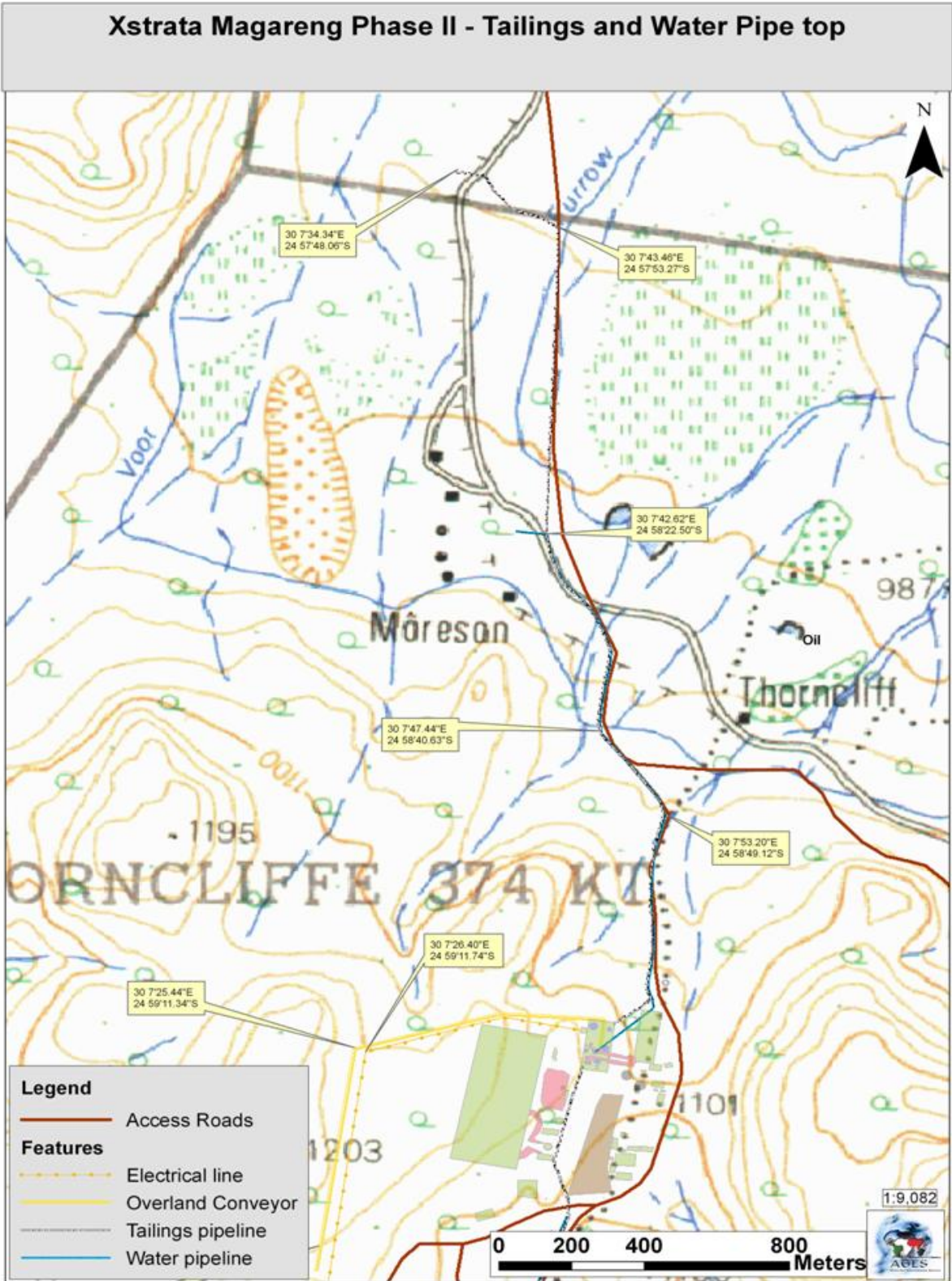


Figure 1: Mining area and associated infrastructure (northern section)

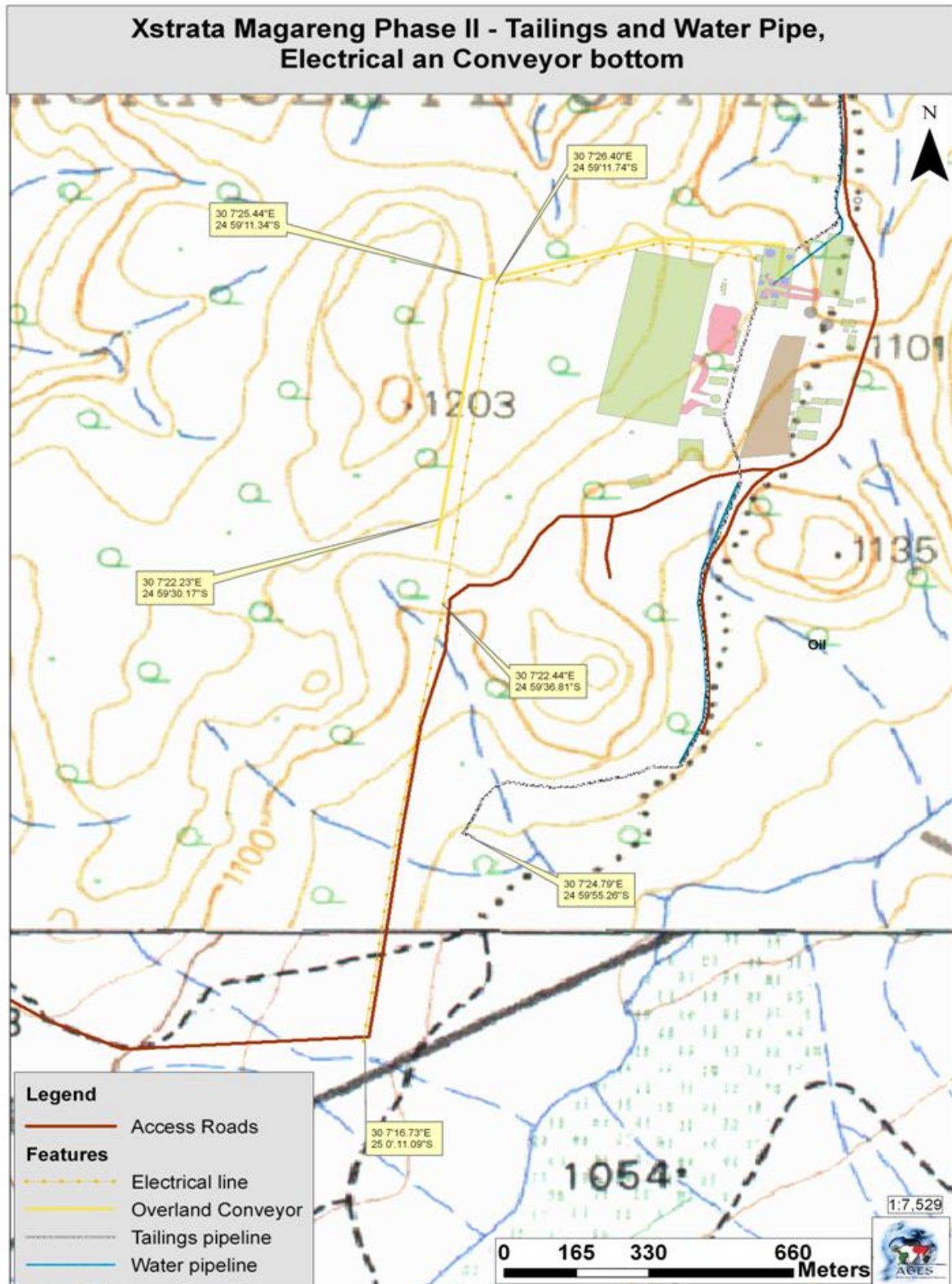


Figure 2: Mining area and associated infrastructure (southern section)



Figure 3: Magareng mining area



Figure 4: Electrical lines will run adjacent to existing roads



Figure 5: Existing mining activities



Figure 6: Area of the new conveyor belt

7. Archaeological Sequence

PERIOD	APPROXIMATE DATE
Early Stone Age	More than c. 2 million years ago - c. 250 000 years ago
Middle Stone Age	c. 250 000 years ago – c. 25 000 years ago

Later Stone Age (Includes San Rock Art)	c. 25 000 years ago - c. AD 200 (up to historic times in certain areas)
Early Iron Age	c. AD 400 - c. AD 1025
Late Iron Age (Stonewalled sites)	c. AD 1025 - c. AD 1830 (c. AD 1640 - c. AD 1830)

8. Archaeological Context

8.1 Stone Age Sequence

Concentrations of Early Stone Age (ESA) sites are usually present on the flood-plains of perennial rivers and may date to over 2 million years ago. These ESA open sites may contain scatters of stone tools and manufacturing debris and secondly, large concentrated deposits ranging from pebble tool choppers to core tools such as handaxes and cleavers. The earliest hominins who made these stone tools, probably not always actively hunted, instead relying on the opportunistic scavenging of meat from carnivore kill sites.

Middle Stone Age (MSA) sites also occur on flood plains, but are also associated with caves and rock shelters (overhangs). Sites usually consist of large concentrations of knapped stone flakes such as scrapers, points and blades and associated manufacturing debris. Tools may have been hafted but organic materials, such as those used in hafting, seldom preserve. Limited drive-hunting activities are also associated with this period.

Sites dating to the Later Stone Age (LSA) are better preserved in rock shelters, although open sites with scatters of mainly stone tools can occur. Well-protected deposits in shelters allow for stable conditions that result in the preservation of organic materials such as wood, bone, hearths, ostrich eggshell beads and even bedding material. By using San (Bushman) ethnographic data a better understanding of this period is possible. South African rock art is also associated with the LSA.

8.2 Iron Age Sequence

In the northern regions of South Africa at least three settlement phases have been distinguished for early prehistoric agropastoralist settlements during the **Early Iron Age** (EIA). Diagnostic pottery assemblages can be used to infer group identities and to trace movements across the landscape. The first phase of the Early Iron Age, known as **Happy Rest** (named after the site where the ceramics were first identified), is representative of the Western Stream of migrations, and dates to AD 400 - AD 600. The second phase of **Diamant** is dated to AD 600 - AD 900 and was first recognized at the eponymous site of Diamant in the western Waterberg. The third phase, characterised by herringbone-decorated pottery of the **Eiland** tradition, is regarded as the final expression of the Early Iron Age (EIA) and occurs over large parts of the North West Province, Northern Province, Gauteng and Mpumalanga. This phase has been dated to about AD 900 - AD 1200. These sites are usually located on low-lying spurs close to water. However, please note that there are no EIA sites in the Free State.

The **Late Iron Age** (LIA) settlements are characterised by stone-walled enclosures situated

on defensive hilltops c. AD 1640 - AD 1830). This occupation phase has been linked to the arrival of ancestral Northern Sotho, Tswana and Southern Ndebele (Nguni-speakers) in the northern and Waterberg regions, and dates from the sixteenth to seventeenth centuries AD. The terminal LIA is represented by late 18th/early 19th century settlements with multichrome Moloko pottery commonly attributed to the Sotho-Tswana. These settlements can in many instances be correlated with oral traditions on population movements during which African farming communities sought refuge in mountainous regions during the processes of disruption in the northern interior of South Africa, resulting from the so-called *difaqane* (or *mfecane*).

8.3 Ethno-historical Context

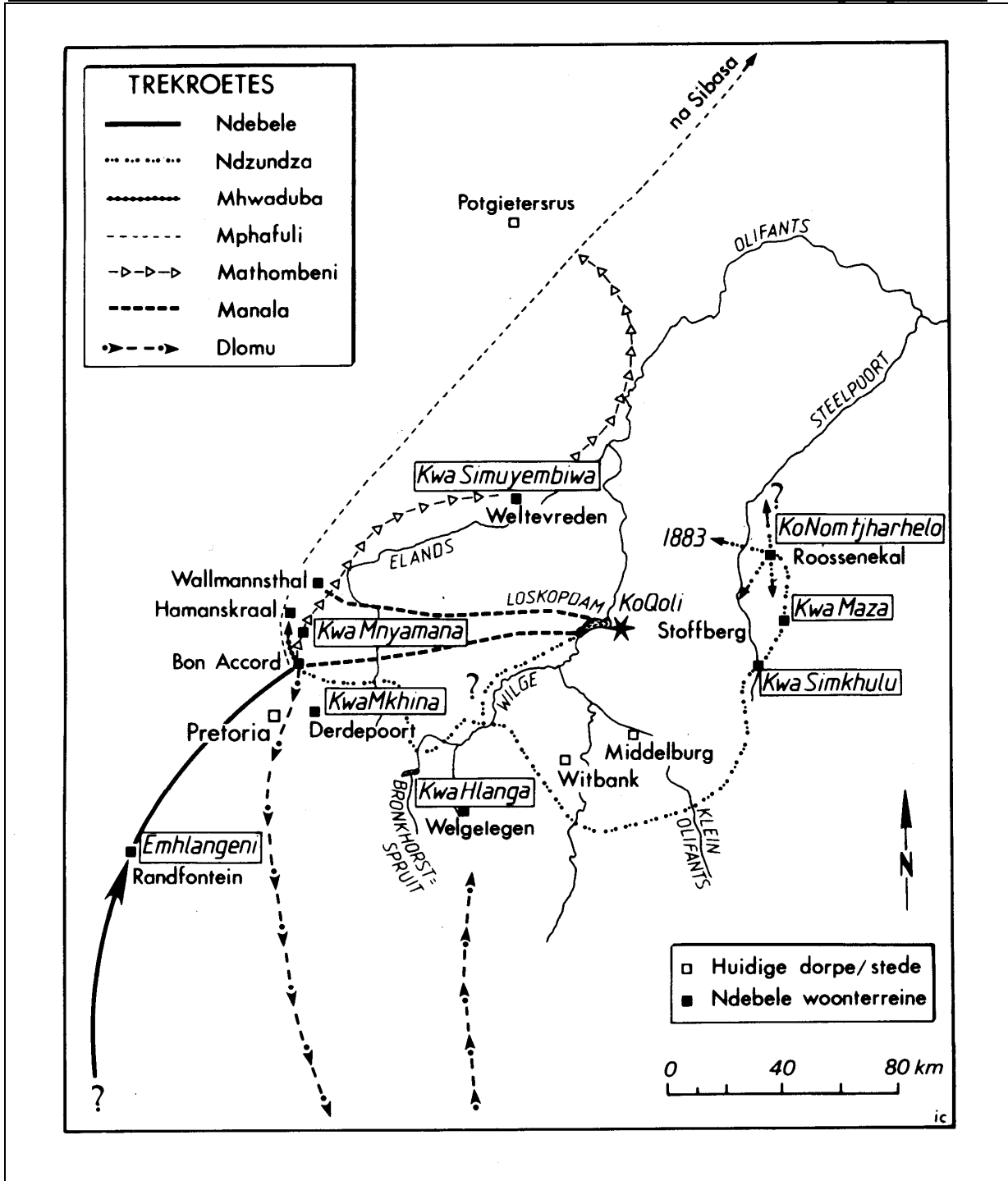
The geographic region is defined by the catchment-areas of the Steelpoort River and further accentuated by high-lying areas. It is clear that this region acted as an area of cultural contact for various cultural groups. Ethnographic evidence suggests that the Sotho-speaking Pedi people (of the Pedi Empire) are of Tswana (Kgatla) descent and moved into the Steelpoort River valley under their chief Thobele (Lellelateng) in the 1650s (Mönnig 1967:14).

The Ndzundza Ndebele (Southern Ndebele of Nguni origin) also settled in Steelpoort River and oral history suggests an early (*circa* late AD 1500) settlement in the interior, to the immediate north of Pretoria, under their founder-ruler called Musi. The Ndzundza chieftaincy is believed to have eventually extended its boundaries along the catchment area of the Steelpoort River in the 1630s and settled here for the next 250 years (Van Vuuren 1995, Van Warmelo 1935). Several of these settlements (KwaSimkhulu, KwaMaza and Esikhunjini) are known through oral history and have been investigated archaeologically (see Schoeman 1997). We know of their chief Mabhogo who ruled from the 1840s, until his death in 1865 (Schoeman 1997:10). It is also known that both groups extended their political and economic influence to a large geographic area. Other groups who lived in the general geographic area of this survey include the Kopa, the Koni, the Phuting, the Swazi (Ndwandwe), and the Shangaan-Tsonga (we acted as intermediate traders with the east coast). Access to and control over this area might also have changed through time. In the 1820s the area was affected by the disruptive influence of the Zulu warrior Mzilikazi and later, during the middle and late 19th century the area underwent a process of settlement by white farmers which resulted in the establishment of fenced farms and formal towns.

Ndebele towns that have been investigated archaeologically include KwaSimkhulu (occupied circa AD 1600 – AD 1680s), KwaMaza (occupied circa AD 1675 – AD 1820; situated at the eastern foot of Bothasberg), Esikhunjini (occupied circa AD 1820 – AD 1835; on the north-eastern slopes of Bothasberg) and KoNomtjarhelo (capital Erloweni (Mapochstad) and an outlying site: UmKlaarmaak (near Spitskop) (occupied circa AD 1835 – AD 1883) (see Map 4). We also know of several Pedi capitals that were also situated in the Steelpoort River valley.

After a period of conflict the Boer Republic (ZAR) signed a peace-treaty with the Pedi under their chief Sekwati on 17 November 1857. A Lutheran missionary of the Berlin Missionary Society, Alexander Merensky visited Sekwati in 1860 and later built a mission station in Gerlachshoop near Bopedi (Mönnig 1967:24-25). In the late 1850s negotiations between the Boers and the Pedi resulted in the purchase by the Boers of a large area below the southern escarpment of the Drakensberg.

Several trading routes associated with the gold trade are known. These routes connected the interior with the east coast to facilitate the export of alluvial gold and import of various commodities. Amongst others, one such route ran from Sabie, over the Drakensberg towards Lydenburg. From Lydenburg the route turned north-western towards Sekhukhune Land over the Grootdwars River and through the Steelpoortdrif, up Magneethoogte, past Ramakokskraal, then along the Gompies River towards Platberg (De V. Pienaar 1990:55)



Map 4: Movement and settlement of the Ndzundza-Ndebele.

11. Conclusions and Recommendations

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