

AFPLATS (PTY) LTD

PROPOSED LEEUWKOP EMP AMENDMENT

BACKGROUND INFORMATION SHARING DOCUMENT

June 2012

INTRODUCTION

The Leeuwkop Platinum Mine is currently being developed by Afplats (Pty) Ltd (Afplats) on the farm Leeuwkop 402JW, within the Madibeng and Rustenburg Local Municipality within the Bojanala Platinum District Municipality in the North West province. The project location is illustrated in Figure 1.

The mine holds an approved Environmental Management Programme (EMP) (NW 30/5/1/2/3/2/1/256EM) from the Department of Minerals and Energy (currently known as the Department of Mineral Resources) and a record of decision issued by the Department of Agriculture, Conservation and Environment (currently known as the Department of Economic Development, Environment, Conservation and Tourism).

Afplats is proposing to amend the approved EMP to cater for changes to planned infrastructure. The proposed changes include:

- A deeper shaft and a change in mining method that will result in the need for an additional waste rock dump to be established on surface
- The use of tailings backfill material as support
- The expansion of the sewage treatment plant
- The expansion of water management facilities
- The development of new water holding facilities
- A change in the planned routing of the access road.
- Incorporation of the farms Wolwekraal 408JQ and Kareepoort 407JQ into the mining right area.

ENVIRONMENTAL AUTHORISATION PROCESS

Prior to the commencement of the proposed project an environmental assessment is required, including an application phase, scoping phase, and an EIA/EMP phase. The assessment will be conducted in terms of the Mineral and Petroleum Resources Development Act, 28 of 2002, and the National Environmental Management Act (NEMA), 107 of 1998. Both laws apply because the proposed projects will be at a mine and they incorporate a number of listed/identified activities from NEMA Regulations R544 and R545. In addition to this, some of the project components will also require authorisation in terms of the National Water Act (NWA), 36 of 1998 and the National Environmental Management: Waste Act (NEMWA) 59 of 2008.

SLR Consulting (Africa) (Pty) Ltd (SLR Africa), an independent firm of environmental consultants, has been appointed by Afplats to manage the environmental process while Iliso Consulting (Pty) Ltd (Iliso) has been appointed to manage the stakeholder engagement process.

PURPOSE OF THIS DOCUMENT

This document has been prepared by SLR Africa and Iliso to inform you about:

- * the proposed project;
- * to provide information of the baseline environment;
- * the environmental assessment process to be followed;
- * possible environmental impacts; and
- * how you can have input into the environmental authorisation process.

YOUR ROLE

You have been identified as an interested and affected party (IAP) who may want to be informed about the proposed project and have input into the environmental authorisation process, the project description and the potential environmental impacts. You will be given the opportunity to provide input at public meetings, and also to review and comment on the following reports:

- * Scoping Report
- * EIA/EMP amendment Report

All comments will be recorded and included in the applications to the relevant departments for decision-making.

HOW TO RESPOND

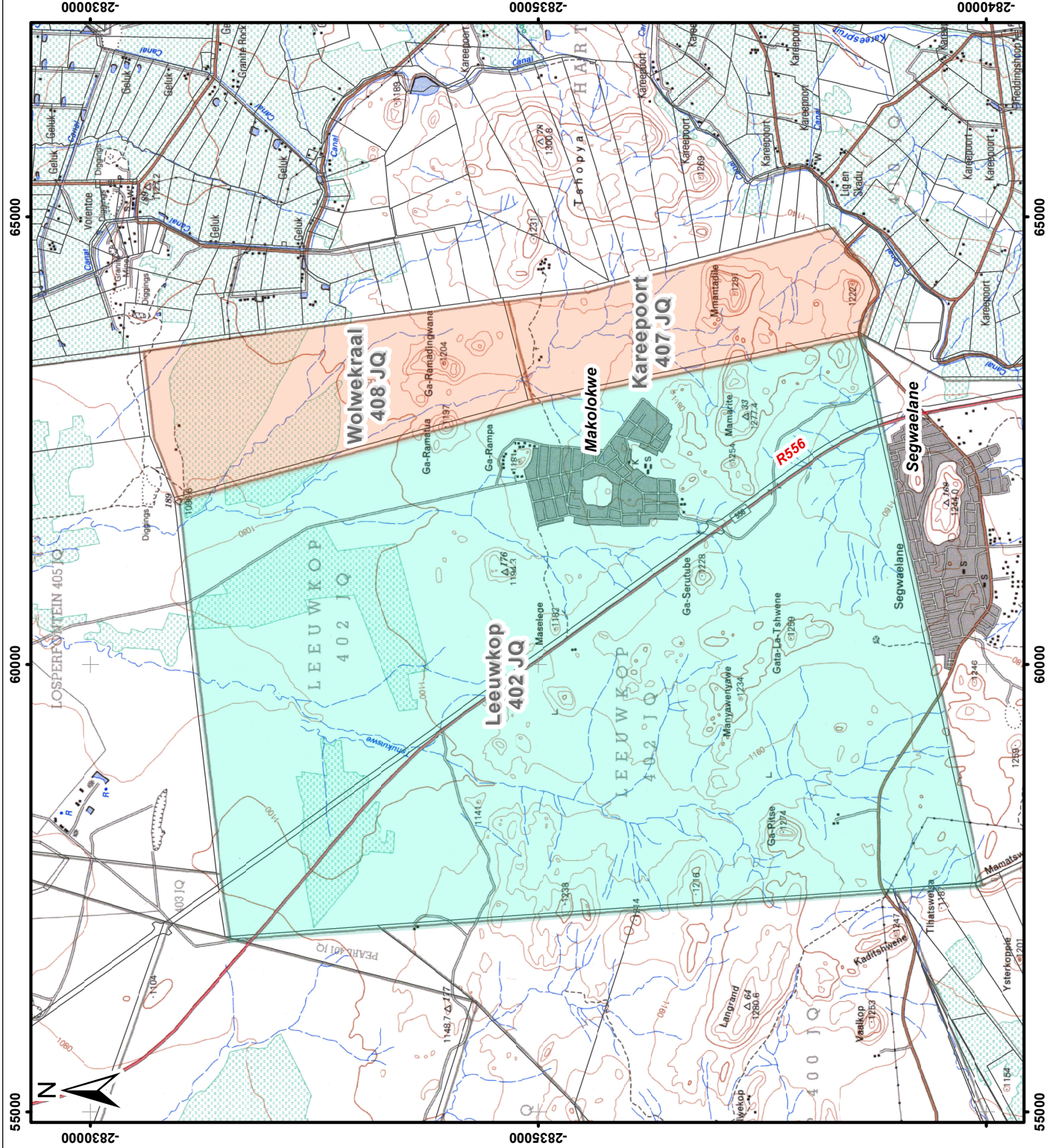
Responses to this document can be submitted by means of the attached comments sheet and/or through communication with the person listed below.

WHO TO CONTACT

Carol Hooghiemstra on
(012) 685 0924 (Tel) or
(012) 665 1886 (Fax) or
carol@iliso.com

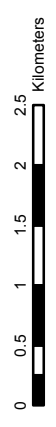
DMR reference number:(NW 30/5/1/2/3/2/1/256EM),
DEDECT (NWP/EIA/25/2012) and DEA (12/9/11/L935/7)

Please ensure that all reference numbers are included on all correspondence.



Legend

- Area To Be Included Into Mining Right
- Approved Mining Rights Area



Scale: 1:63 000 @ A4

Projection: Transverse Mercator

Datum: Hartbeeshoek, LO27

AFPLATS (PTY) LTD

Figure 1

Local Setting



PROJECT OVERVIEW

Afplats is aiming to authorise the proposed changes to the approved Leeuwkop infrastructure layout and incorporate the farms Wolwekraal 408JQ and Kareepoort 407JQ into the mining right area. Afplats currently holds a prospecting permit (NW 30/5/1/1/2/1033 PR) on these farms. At this stage no surface infrastructure is planned to be established on these additional farms. Instead, the ore resource will be accessed via the main shaft system on Leeuwkop 402 JQ. Exploration drilling will however continue on these farms. The proposed changes to the current infrastructure layout are discussed in more detail below:

Change in mining method: The current mining method is changing from a fully mechanised room and pillar method to a more conventional stoping method. The shaft will also be deeper than originally planned.

Tailings support: Grout packs comprised of tailings material, fly ash and other binding agents will be used as additional shaft support to the traditional roof bolts and wooden supports.

Establishment of a waste rock dump: The proposed change to the mining method will require the disposal of waste rock on surface. This proposed waste rock dump is estimated to have a footprint of 24 ha.

Sewage treatment plant: The capacity of the approved sewage treatment plant will be increased.

Water management facilities: An extension of the planned pollution control dams and water supply infrastructure will be required.

Water holding facility: An additional water holding facility will be required to store make-up water for up to two weeks during routine maintenance of the water supply infrastructure.

Transport system: It is proposed to extend the current asphalt access road.

Employment: The proposed operation will allow for an increase of the current workforce by an additional 400 employees during the construction phase and additional 3500 employees in the operational phase.

Life of mine: The initial anticipated life of mine was 20 years. With the proposed change to the mining method steady state mining is predicted to start in 2025 for a period of 19 years, where after production will reduce slowly to 2065.

SLR Consulting (Africa) (Pty) Ltd

STATUS OF THE EXISTING ENVIRONMENT

This section provides a basic description of the existing status of the environment. More detailed information will be provided in the EIA/EMP.

Geology: Afplats is situated in the Bushveld Igneous Complex (BIC), which is an intrusive igneous body. The BIC is a layered igneous body that consists of sedimentary and volcanic rocks of the Transvaal Supergroup. The BIC is host to major deposits of platinum group metals (PGMs), chromite, vanadium and nickel. The PGMs comprise the elements platinum, palladium, rhodium, ruthenium, osmium and iridium.

Climate: Afplats is located in the Middle Veld climatic zone. The area is characterised by a mild climate, with about six weeks of chill in mid-winter between July - August. The rainy season occurs during summer from November to February, with the winter months relatively dry period with an annual precipitation of approximately 658 mm/year. The prevailing wind direction is south-west.

Topography: The topographical relief of the area is characterised by undulating terrain interspersed with granite hills averaging 100 m in height.

Soils: The major soil types that occur at Afplats include those of the orthic phase Mispah, along with some structured forms, including Milkwood, Bonheim and Arcadia. These soils types range from poor to very poor quality arable soils with extremely low economic potential.

Land use: The current land use is a mixture of agricultural activities (crop cultivation and grazing) and mining activities.

Animal life: Disturbance caused by existing mining activities and surrounding communities in the area has resulted in the fragmentation of the natural veld and only patches of undisturbed veldt occur. One hundred and twenty eight mammal species are likely to occur in the Brits region, but only 92 may occur on the proposed Leeuwkop site, this includes mammals, herpetofauna and birds.

Plant life: The vegetation structure consists of a mixture of tree and grass species, typical of the Rustenburg Gabbro Thornveld. Growth forms of the species recorded within the study area were largely dominated by forb (27%), grass (22%) and tree species (21%), with approximately 7% being shrub species and 6% being shrublet species.

POTENTIAL ENVIRONMENTAL IMPACTS

Surface water: The mine is primarily located within quaternary catchment A21K. The south-east portion of the site falls within a second quaternary catchment, A21J. Several non-perennial tributaries occur within the proposed project area, some of which are significant tributaries of the Tshukutswe River. Water quality is generally poor and is above the recommended DWA domestic use guidelines for various parameters. No wetlands occur within the proposed project area.

Groundwater: The proposed study area is situated on fractured rock aquifers and is classified as a Minor Aquifer System. The depth of groundwater levels varies between 0 and > 90 m below surface. Deeper water levels are associated with the presence of faults and dykes.

Air quality: Apart from the current Afplats operations, various mines, industries and activities in the area also contribute to the emission of pollutants. These pollutants include; fugitive dust, mining emissions, biomass burning, household fuel combustion and vehicle tailpipe emissions.

Noise: The main sources of noise emissions include traffic on the R556, local traffic and communal activities in the settlements of Segwaelane and Makolokwe. The noise levels range between 60 dbA during the day and 55 dbA at night. This is expected to be similar on Wolwekraal and Kareepoort.

Visual: The overriding visual characteristic is that of a rural environment.

Heritage/cultural and palaeontological resources: Afplats is located in an area where sites of heritage/cultural importance occur. These may include stonewalled sites, graves, remains, middens etc. It should be noted that although no heritage resources are expected to occur in areas planned for surface infrastructure, heritage/cultural resources are expected to occur on the farms Wolwekraal 408JQ and Kareepoort 407JQ. It is not considered likely that paleontological resources exist within the project area due to the geology of the area.

Socio-economic: Segwalaene and Mokolokwe are the closest communities to the proposed project area and are located within a three kilometre radius. Unemployment rates are high, the establishment of un-serviced settlements in the area is increasing, and associated social problems such as disease and crime are increasing. Mining remains the major formal employment provider.

The following preliminary list of potential impacts has been identified for the proposed project and will be investigated as part of the environmental assessment process:

Safety – The proposed project has the potential to alter the topography and introduce infrastructure and excavations which may present potential safety risks for both people and animals.

Soils – the proposed project has the potential to cause soil erosion, compaction and/or soil pollution.

Land use – the proposed project has the potential to impact on livestock and crop farming activities.

Biodiversity – the proposed project has the potential to disturb biodiversity. Biodiversity includes vegetation, vertebrates and invertebrates.

Surface water – the proposed project has the potential to alter surface drainage patterns and to pollute surface water resources.

Groundwater – the proposed project has the potential to contaminate groundwater resources. In addition, dewatering at the shaft could impact groundwater levels and availability to other groundwater users.

Air – the proposed project has the potential to emit pollution into the air. The most significant emission type is dust.

Noise – the proposed project has the potential to cause noise pollution.

Visual – the proposed project has the potential to create visual impacts through topographical changes associated with large scale infrastructure.

Heritage resources – the proposed project has the potential to damage heritage resources such as graves.

ENVIRONMENTAL AUTHORISATION PROCESS

The environmental process provides information on the project and environment in which it is being undertaken; identifies, in consultation with interested and/or affected parties (IAPs), the potential negative as well as positive impacts of the project; and reports on management measures required to mitigate impacts to an acceptable level. The likely process steps and timeframes are provided below. IAPs and other stakeholders registered on the project's database will receive notification of information-sharing meetings and report review periods in advance.

The likely process steps and timeframes of the environmental process are provided below.

STEPS IN THE AUTHORISATION PROCESS

<p>PHASE I – Application phase (May to June 2012)</p> <p>Submission of applications to DEDECT and DEA. Notify DMR of Afplats intention to amend the approved EMP.</p>
<p>PHASE II – Scoping process (May to August 2012)</p> <p>Notify other regulatory authorities and IAPs of project and environmental assessment (via social scan, newspaper advertisements, site notices and this document)</p> <p>Scoping information-sharing meeting(s) with regulatory authorities (if required) and IAPs</p> <p>Compile scoping report and submit to DMR, IAPs and other authorities for review</p> <p>Public review of scoping report (40 days)</p> <p>Submit scoping report including IAP comments to DEDECT and DEA. Forward IAP comments to DMR</p>
<p>PHASE III – EIA/EMP (September 2012 to April 2013)</p> <p>Complete specialist studies</p> <p>Compile EIA/EMP report and submit to DMR, IAPs and other authorities for review</p> <p>Compile water use license application and submit to the department of water affairs</p> <p>Public review of EIA/EMP report (40 days)</p> <p>Submit EIA/EMP report including IAP comments to DEDECT and DEA. Forward IAP comments to DMR</p> <p>Circulate environmental authorisation decisions to IAPs registered on the project database and advertise the authority decisions.</p>

PARTIES INVOLVED IN THE ENVIRONMENTAL ASSESSMENT PROCESS

IAPs

- * Surrounding landowners, land users and communities
- * Surrounding mines and industries
- * Non-governmental organisations and associations
- * Traditional authorities and Community Property Associations

REGULATORY AUTHORITIES

- * Department of Environment Affairs (DEA)
- * Department of Water Affairs (DWA)
- * Department of Economic Development, Environment, Conservation and Tourism (DEDECT)
- * Department of Mineral Resources (DMR)
- * South Africa Heritage Resource Agency (SAHRA)
- * Department of Agriculture, Forestry and Fisheries (DAFF)
- * Department of Land Affairs (DLA)

LOCAL AUTHORITIES

- * Rustenburg Local Municipality
- * Madibeng Local Municipality
- * Bojanala District Municipality
- * Municipal Ward councillors

Please let us know if there are any additional parties that should be involved.

AFPLATS (PTY) LTD

PROPOSED LEEUWKOP EMP AMENDMENT BACKGROUND INFORMATION SHARING DOCUMENT

REGISTRATION AND RESPONSE FORM FOR INTERESTED AND AFFECTED PARTIES

DATE		TIME	
PARTICULARS OF THE INTERESTED AND AFFECTED PARTY			
NAME			
POSTAL ADDRESS			
		POSTAL CODE	
STREET ADDRESS			
		POSTAL CODE	
WORK/ DAY TELEPHONE NUMBER		WORK/ DAY FAX NUMBER	
CELL PHONE NUMBER		E-MAIL ADDRESS	

PLEASE IDENTIFY YOUR INTEREST IN THE PROPOSED PROJECT

PLEASE WRITE YOUR COMMENTS AND QUESTIONS HERE

Please return completed forms to:

Carol Hooghiemstra
Iliso Consulting
 (012) 685 0924 (Tel) and/or (012) 665 1886 (Fax)
carol@iliso.com

