APPENDIX H: FINANCIAL PROVISION

FINANCIAL PROVISION FOR THE PROPOSED INCREASE OF THE FLASH DRYER CAPACITY AND ASSOCIATED FEED CIRCUIT MODIFICATIONS AT THE IMPALA RUSTENBURG SMELTER COMPLEX

Impala Smelter Complex

FEBRUARY 2021

Name of applicant: Impala Platinum Limited
Tel no: (011) 123-4567
Fax no: (011) 123-4567
Postal address: PO Box 1, Town, Postal Code
Physical address: 1 Street name, Town, Postal Code File reference number SAMRAD: NW-00288-MR/102

SLR Project No.: 710.09003.00140
Revision No.: 01
February 2021

DOCUMENT INFORMATION

Title	Financial Provision for the proposed increase of the flash dryer capacity and associated feed circuit modifications at the Impala Rustenburg Smelter Complex
Project Manager	Reinett Mogotshi
Project Manager e-mail	Rmogotshi@slrconsulting.com
Author	Reinett Mogotshi and Natasha Smyth
Keywords	Flash Dryer, Smelter Complex, Impala
Status	Draft for client review
SLR Project No	710.09003.00140

DOCUMENT REVISION RECORD

Rev No.	Issue Date	Description	Issued By
01	February 2021	Draft for public review	RM

REPORT COMPILATION

REPORT COMPILED BY:

……

Natasha Smyth

Environmental Assessment Practitioner (Author 1)

REPORT COMPILED BY:

……

Reinett Mogotshi

Environmental Assessment Practitioner (Author 2)

BASIS OF REPORT

This document has been prepared by an SLR Group company with reasonable skill, care and diligence, and taking account of the manpower, timescales and resources devoted to it by agreement with (Impala Platinum Limited) part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty.

Information reported herein may be based on the interpretation of public domain data collected by SLR, and/or information supplied by the Client and/or its other advisors and associates. These data have been accepted in good faith as being accurate and valid.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

The copyright and intellectual property in all drawings, reports, specifications, bills of quantities, calculations and other information set out in this report remain vested in SLR unless the terms of appointment state otherwise.

This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it.

Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.

EXECUTIVE SUMMARY

INTRODUCTION

Impala Platinum Limited (Impala), a member of the Implats group of companies, operates platinum group metals mining and processing operations that is located approximately 16 km north-north-west of the town of Rustenburg in the Bojanala Platinum District Municipality in the North West Province.

The mine operates in accordance with:

- an approved Environmental Management Programme (EMPr) (Reference number: NW30/5/1/2/3/2/1/130,131,132 and 133 EM) for their mining and processing operations; and
- an Atmospheric Emissions Licence (AEL) (Reference Number: BPDM – RA2- March 2014 / Drying and Smelting) for drying and smelting activities. Impala's Smelter Complex operates flash and spray dryers on Portion 2 of the farm Beerfontein 263 JQ.

Impala is proposing to increase its flash drying capacity at its Smelter Complex (the "Project") which entails:

- the installation of a second flash dryer (Phase 1); and
- an upgrade to the flash drying feed circuit (Phase 2).

SLR, an independent firm of Environmental Assessment Practitioners (EAP), has been appointed by Impala to prepare the financial provision for the project.

OBJECTIVES FOR CLOSURE

The preliminary closure plan objectives and principles have been developed for the project against the background of the mine location in the North West. These objectives are in line with current approved EMPrs and include the following:

- that environmental damage is minimised to the extent that it is acceptable to all parties involved;
- that contamination beyond the project area by surface run-off, groundwater movement and wind will be prevented;
- that the project closure is achieved efficiently, cost effectively and in compliance with the law;
- rehabilitate the land to achieve an end use of grazing to the extent reasonably possible; and
- that the social and economic impacts resulting from project closure are managed in such a way that negative socio-economic impacts are minimised.

Any additional and more specific closure objectives tied to the final land use for the entire Impala operations, will be determined in collaboration with local communities and other stakeholders during the ongoing operations at Impala.

LEGAL FRAMEWORK

This report has been drafted in accordance with the Financial Provisioning Regulations, 2015 (GNR 1147 of 20 November 2015), as amended, for inclusion into the BAR for the project. The table below details the requirements of GNR 1147 and also the relevant sections in the report where these requirements are addressed.

GNR 1147 – Appendix 3, 4 and 5		Relevant section in the report
Annual Rehabilitation Plan (Appendix 3)		
3(a)-(g)	Annual Rehabilitation Plan	Section 14
Closure Plan (Appendix 4)		
3(a)	Details of the specialists	Section 2
3(b)(i)	Material information	Section 3.1
3(b)(ii)	Environmental and social context	Section 3.2
3(b)(iii)	Stakeholder issues and comments	Section 3.3
3(b)(iv)	Mining plan and schedule	Section 4
3(c)(i)	Risk assessment methodology	Section 5.1
3(c)(ii)	Identification of indicators	Section 5.3
3(c)(iii)	Strategies to manage/mitigate risks	Section 5.2
3(c)(iv)	Reassessment of risks	Section 5.4
3(c)(v)	Changes to risk assessment results	n/a – no changes deemed necessary
3(d)(i)	Legal and governance framework	Section 6.1
3(d)(ii)	Closure vision and objectives	Section 6.2
3(d)(iii)	Evaluation of alternatives	Section 6.6
3(d)(iv)	Motivation for closure option	Section 6.7
3(d)(v)	Motivation for closure period	Section 6.8
3(d)(vi)	Details of ongoing research	Section 6.9
3(d)(vii)	Assumptions made for closure	Section 6.10
3(e)(i)	Post-mining land use	Section 7
3(e)(ii)	Map of post mining land use	n/a – alternative and practical closure and post closure options will be investigated during the on-going operations at Impala
3(f)(i)	Specific technical solutions	Section 8
3(f)(ii)	Threats and uncertainties	Section 6.10
3(g)(i)&(iii)	Schedule of actions	Section 6.10
3(g)(ii)	Assumptions and drivers	Sections 6.10
3(h)(i)-(iii)	Organisational capacity and structure	Section 10
3(i)	Indication of gaps	Section 11
3(j)	Relinquishment criteria	Section 12
3(k)(i)	Closure cost estimate & accuracy	Section 13
3(k)(ii)	Closure cost estimate methodology	Section 13.2
3(k)(iii)	Annual updates	Section 14
3(l)(i)-(iii)	Monitoring, auditing and reporting	Section 15

GNR 1147 – Appendix 3, 4 and 5		Relevant section in the report
3(m)	Amendments to the closure plan	n/a – no amendments deemed necessary
Environmental Risk Assessment (Appendix 5)		
(a)	Details of the specialists	Section 2
(b)(i)	Risk assessment methodology	Section 5.1
(b)(ii)	Latent risk substantiation	Section 5.5
(b)(iii)	Risk drivers	Section 5.3
(b)(iv)	Expected timeframe	n/a – no latent risks identified
(b)(v)	Risk triggers	n/a – no latent risks identified
(b)(vi)	Risk assessment results	Section 5.2
(b)(vii)	Changes to risk assessment results	Section 5.4
(c)(i)	Monitoring to inform management	Section 15
(c)(ii)-(iv)	Alternative mitigation measures following impacts	n/a – no changes to risk identified
(d)(i)-(iii)	Cost estimation and accuracy	Section 13
(e)	Monitoring, auditing and reporting	Section 15

CLOSURE COST CALCULATION

The financial provision for the project represents a 10 Year forecast. The financial provision takes into consideration the project schedule for implementation. Impala are to financially provide for the highest liability figure out of the 10 Year closure forecast, this has been calculated to be **R1 668 891.81** (inclusive of VAT) at year 2024.

CONTENTS

APPENDICES

LIST OF TABLES

LIST OF FIGURES

ACRONYMS AND ABBREVIATIONS

Acronym / Abbreviation	Definition
AEL	Atmospheric Emissions License
BAR	Basic Assessment Report
CPI	Consumer Price Index
dBA	Decibels
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
DMRE	Department of Mineral Resources and Energy
EMPr	Environmental Management Programme
MAMSL	Metres Above Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NEMA	National Environmental Management Act, No. 107 of 1998
NDCR	The National Dust Control Regulations
P&G	Preliminary and General
PM	Particulate Matter
SANS	South Africa National Standard
SLR	SLR Consulting (Africa) (Pty) Ltd
VAT	Value Added Tax
ZAR	South African Rand

1 INTRODUCTION

Impala Platinum Limited (Impala), a member of the Implats group of companies, operates platinum group metals mining and processing operations that is located approximately 16 km north-north-west of the town of Rustenburg in the Bojanala Platinum District Municipality in the North West Province. Refer to Figure 1 and Figure 2 for the regional and local settings respectively.

The mine operates in accordance with:

- an approved Environmental Management Programme (EMPr) (Reference number: NW30/5/1/2/3/2/1/130,131,132 and 133 EM) for their mining and processing operations; and
- an Atmospheric Emissions Licence (AEL) (Reference Number: BPDM – RA2- March 2014 / Drying and Smelting) for drying and smelting activities. Impala's Smelter Complex operates flash and spray dryers on Portion 2 of the farm Beerfontein 263 JQ.

Impala is proposing to increase flash drying capacity at its Smelter Complex (the "Project") which entails:

- the installation of a second flash dryer (Phase 1); and
- an upgrade to the flash drying feed circuit (Phase 2).

SLR, an independent firm of Environmental Assessment Practitioners (EAP), has been appointed by Impala to to prepare the financial provision for the project.

2 SPECIALIST INPUT

2.1 SPECIALISTS THAT PREPARED THE FINANCIAL PROVISION

The details of the persons who prepared this financial provision report are provided in Table 2-1 below.

TABLE 2-1: DETAILS OF THE PERSONS WHO PREPARED THIS REPORT

Details	EAP and author	EAP and author	Closure Specialist
Company:	SLR	SLR	E-Tek Consulting
Name:	Reinett Mogotshi	Natasha Smyth	Leon Koekemoer
Tel No.:	011 467 0945	011 467 0945	018 294 3652
Fax No.:	011 467 0978	011 467 0978	-
E-mail:	Rmogotshi@slrconsulting.com	nsmyth@slrconsulting.com	lkoekemoer@etekconsulting.co.za

2.2 EXPERTISE OF THE SPECIALISTS

Natasha Smyth holds an Honours degree in Geography and Environmental Management and has approximately 12 years of relevant experience. Natasha has managed and assisted in a wide range of projects for major and small-scale minerals developments throughout South Africa, as well as in Namibia and Zambia. Her areas of expertise include Environmental Impact Assessments (EIAs), Environmental Compliance and Monitoring and Environmental Due Diligence.

Reinett Mogotshi holds an Honours degree in Environmental Analysis and Management and has 5 years of experience in both public and private sectors, primarily agriculture, oil and gas, telecommunication, infrastructure, renewable energy and mining. Her focus is execution and management of environmental authorisation processes and waste management. She is a Registered Cand.Sci.Nat (Environmental Science) and is a member of the International Association for Impact Assessment South Africa.

Leon Koekemoer holds a National Diploma in Construction Management from Technical University of Pretoria and has approximately 10 years of relevant experience in environmental compliance, mining, environmental consulting, health and safety and legal writing.

Copies of the specialist's curriculum vitae are attached in Appendix A.

2.3 DECLARATION OF INDEPENDENCE

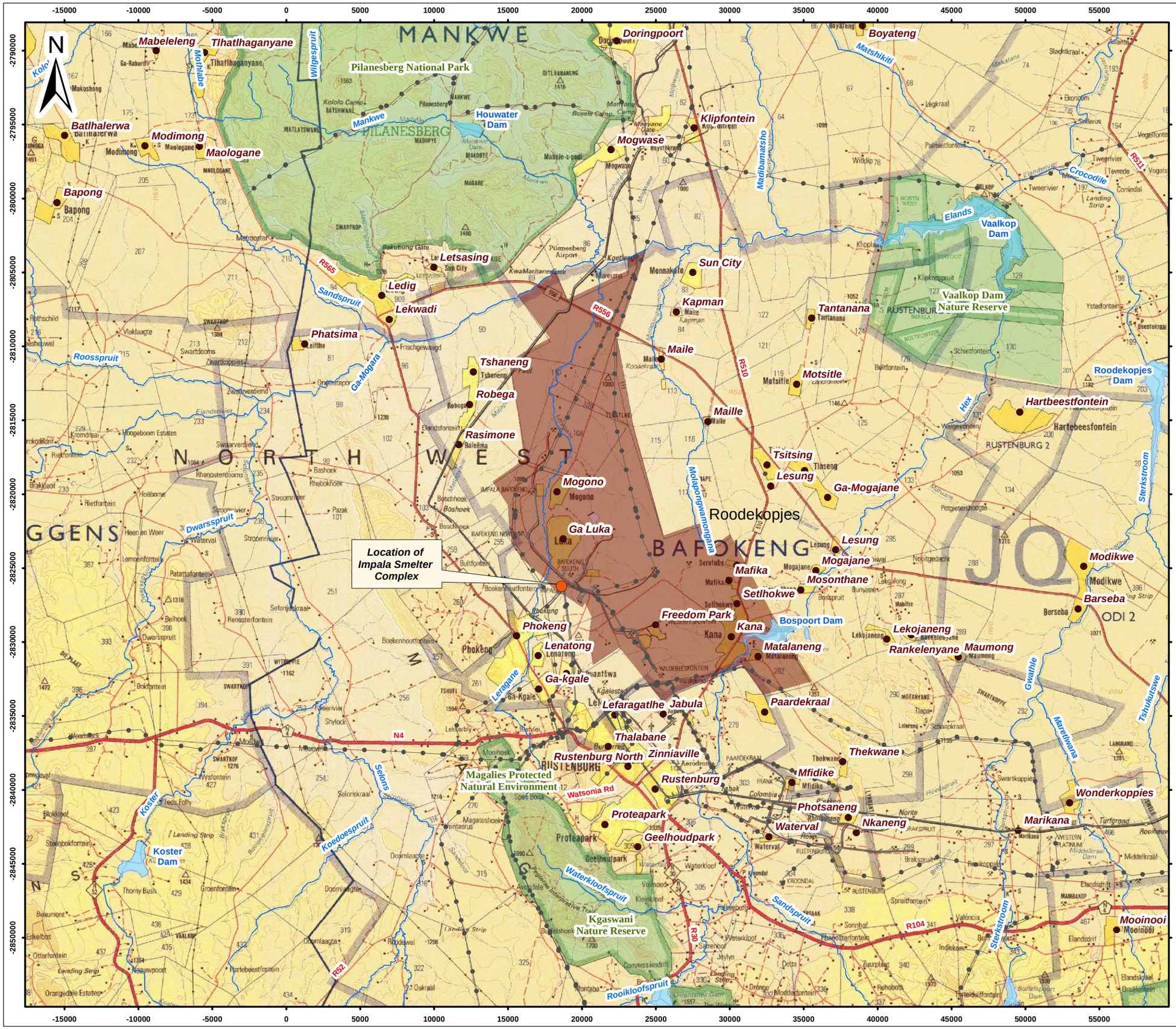
I, Natasha Smyth and Reinett Mogotshi hereby declare that we are independent consultants, who have no interest or personal gains in this project whatsoever, except receiving fair payment for rendering an independent professional service.

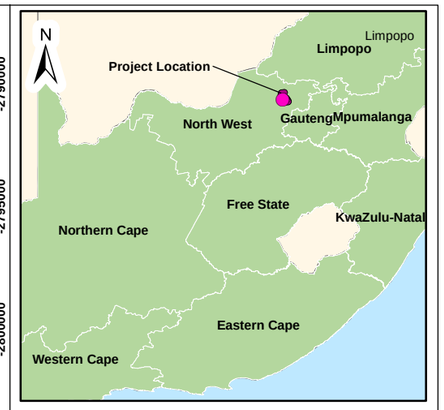
3 CONTEXT OF THE PROJECT

3.1 MATERIAL INFORMATION

This financial provision has been prepared in accordance with GNR 1147 of the National Environmental Management Act (107/1998): Regulations pertaining to the financial provision for prospecting, exploration, mining or production operations, published 20 November 2015 (Financial Provisioning Regulations, 2015).

Impala is proposing to increase flash drying capacity at its Smelter Complex which entails the installation of a second flash dryer (Phase 1) and an upgrade to the flash drying feed circuit (Phase 2). The local and regional settings are included in Figure 1 and Figure 2 respectively.





Legend

- Towns / Villages
- Main Roads
- Power Line
- Railway Line
- Rivers
- Dams
- Protected Areas / Nature Reserves
- Impala Surface Use Area
- Impala Smelter Complex

0 4 8 Kilometers

Scale: 1:250 000 @ A3

Projection:Transverse Mercator
Datum: Hartebeeshoek, Lo 23

Impala Platinum Limited

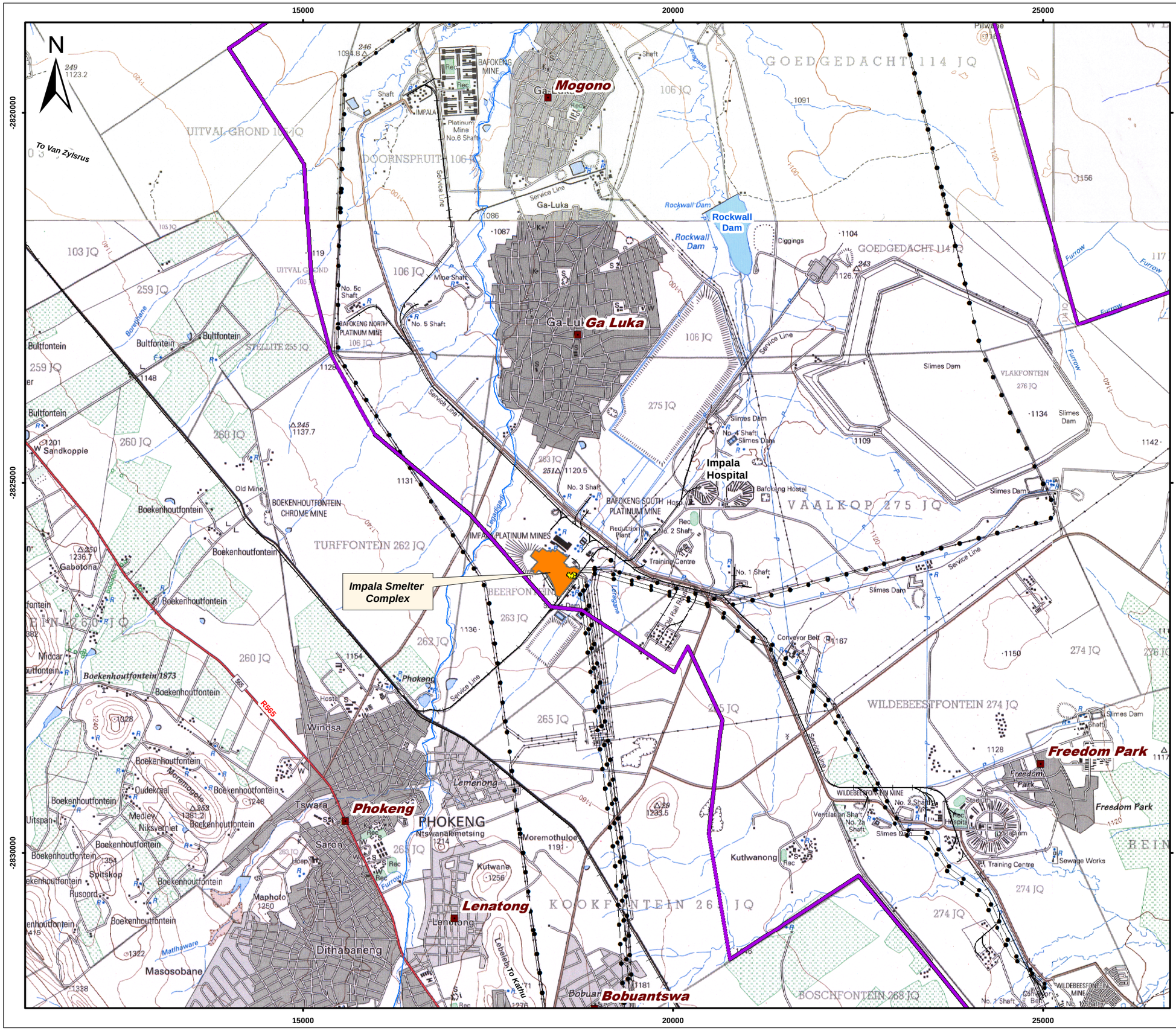
Figure 1

Regional Setting

SLR Consulting (Africa) (Pty) Ltd
P O Box 1596, Cramerview, 2060, South Africa
Tel: +27 (11) 467-0945 Fax: +27 (11) 467-0978

720.19136.00002

2020/11/13



Scale: 1:50 000 @ A3

Projection:Transverse Mercator
Datum: Hartebeeshoek, Lo 27

Impala Platinum Limited

Figure 2

Local Setting

SLR Consulting (Africa) (Pty) Ltd
P O Box 1596, Cramerview, 2060, South Africa
Tel: +27 (11) 467-0945 Fax: +27 (11) 467-0978

710.09003.00140	2020/11/13

3.2 ENVIRONMENTAL AND SOCIO-ECONOMIC OVERVIEW

The information in this section provides a summary of the environmental, cultural and socio-economic baseline situation that is likely to be influenced by the project. Information in this section was sourced from the Basic Assessment Report (BAR) compiled for the project (SLR, February 2021). For further information, refer to Section 7.4 of the BAR (SLR, February 2021). **In terms the environmental, cultural and socio-economic baseline it is important to note that the project site is located within the already disturbed Smelter Complex.**

TABLE 3-1: OVERVIEW OF ENVIRONMENTAL AND SOCIO-ECONOMIC BASELINE SITUATION

Aspect	Overview
Topography	The surface use area is characterised by gentle undulating plains at an altitude of approximately 1 130 meters above mean sea level, approximately 10 km north-east of the northern most section of the Magaliesberg Range. Peaks in this section of the Magalies rise to heights of between 1 400 and 1 500 metres above mean sea level (mamsl). The northern areas of the surface use area are undisturbed and therefore regarded as being in its natural state. The southern area of the Impala Surface Use Area has been disturbed due to the presence of mining activities, infrastructure and communities. No natural topography is associated with the project area, as the site is located within the disturbed footprint of the Smelter Complex.
Climate	The project area falls within the Highveld Climatic Zone. Of the mean annual precipitation, 85% falls during summer thunderstorms. The thunderstorms generally occur every 3 to 4 days in summer and are of short duration and high intensity. Temperatures in this climatic zone are generally mild, but low minima can be experienced in winter due to clear night skies. Frost characteristically occurs in the winter months. Generally, winds are light, but south-westerly winds associated with thunderstorms are typically strong and gusty.
Soils and land capability	The soil form within the project area is the Calcic Vertisols. These are predominantly highly structured, relatively shallow soils with a high clay content which allows for high water retention. Soils are therefore not highly erodible but are susceptible to compaction. The project is located within the existing Smelter Complex and as such the natural integrity of soils forms located within this area and any natural related land capability have already been influenced by existing activities within the Smelter Complex.
Biodiversity	In general, the area surrounding the Smelter Complex is located within the Marikana Thornveld vegetation type which is characterised by undulating plains and lowland hills. The Marikana Thornveld vegetation type occurs on the plains between Rustenburg and Pretoria through the Marikana area. Natural vegetation within the project areas has been removed due to existing activities within the Smelter Complex.
Surface water	The project area is located approximately 1.17 kilometres from the non-perennial Leragane stream (which is largely modified) and approximately 230 m from its tributary within quaternary catchment A22F. Due to the non-perennial nature of the Leragane stream and its associated tributary, there is no third party reliance of these watercourses. The project is also located within the Smelter Complex and approximately 200 m away from the channelled valley-bottom wetland. It is however important to note that this wetland has been influenced by current community and mining related activities.
Groundwater	The aquifer underlying the Impala Surface Use Area is generally classified as a minor aquifer system. These zones are likely to be associated with geological features such as the Hex river fault which is associated with significant volumes of poor-quality water. Boreholes within and surrounding the project area are used for groundwater monitoring purposes. The nearest groundwater sampling point from the Smelter Complex has indicated the highest concentration of sulphuric and phosphoric acid as well as phosphate concentrations. This is likely

Aspect	Overview
	associated with sulphuric and phosphoric acids that were both historically used at Omnia operations. The highly elevated phosphate concentrations of these sites also suggest a potential contribution of the Omnia (phosphate and gypsum) stockpiles.
Air quality	The current air quality in the area is mostly influenced by mining and processing activities within the Impala Surface Use Area, surrounding operations (mines), farming activities, domestic fires, vehicle exhaust emissions and dust entrained by vehicles. These emission sources vary from activities that generate relatively course airborne particulates (such as dust from paved and unpaved roads, and the mine sites) to fine Particulate Matter (PM) such as that emitted by vehicle exhausts, diesel power generators and processing operations. Monitoring results at Impala indicate that dust fallout from the existing mining operations do not exceed the National Dust Control Regulations (NDCR) limits (apart from one exceedance at the Platinum Village which is believed to be a contaminated or tampered sample). SO_2 sampling at Impala shows that there are no exceedances of the National Ambient Air Quality Standards (NAAQS), however there are exceedances of $PM_{2.5}$ and PM_{10}.
Noise	The closest community to the Smelter complex is the Ga-Luka community, located approximately 2 km north of the project footprint. The baseline monitoring indicates that noise levels at Ga-Luka are 64.7 dBA (this exceeds the 55dBA limit for rural areas in terms of SANS 10103 during the day and 46.1 dBA (this exceeds the 45dBA limit for rural areas in terms of SANS 10103) during the night. Impala's contribution to noise levels within most communities varies between 3 dBA and 4 dBA which would not likely result in annoyance. In the regional context, contributions to ambient noise as a result of the project will be low. The additional noise generated from the project will be absorbed by the noise emissions from the existing smelter operations.
Visual aspects	The project area is located in a disturbed footprint within the Smelter Complex, as such the scenic value is considered to be very low. The low sense of place is associated with the project area, due to the presence of existing infrastructure at the Smelter Complex.
Heritage and Palaeontology	None of the identified heritage resources within the Impala Surface Use Area lies within the project footprint as the site is located within the disturbed footprint of the Smelter Complex.
Socio-economic	There are communities and mines within the Impala Surface Use Area. Unemployment and education levels in the municipality are lower than the provincial average. The proposed increase in the flash drying capacity will allow for the creation of short term employment during construction phase and sustainable continuation of the current employment opportunities, therefore negative project-related socio-economic impacts including inward migration, which could place additional pressure on housing and municipal services, are not expected to occur.
Land use	Land use within the Impala Surface Use Area is a mixture of agriculture, community / suburban, mining activities and wilderness. Land use within the project area is limited to mining as a result of the existing smelter operations.
Traffic	Access to the Smelter Complex is via an access road that runs between two communities (Phokeng and Bobuampja) and is known as the Lefaragatlha Road. On occasions, the Luka road can be utlised as an alternative road.

3.3 STAKEHOLDER ISSUES AND COMMENTS

As part of the Basic Assessment process a public participation process was undertaken for the project. To date, no issues and concerns around rehabilitation and closure objectives has been raised. This Financial Provision report has been prepared in support of the Basic Assessment process for the project. The BAR together with this report will be made available for public review. This report will be updated to include any closure comments and concerns raised during the public review period.

4 MINE PLAN AND SCHEDULE

Information in this section was sourced from the BAR (SLR, February 2021) for the project. A summary of the key project components is provided in the section below. For further detail refer to Section 3 of the BAR for the project.

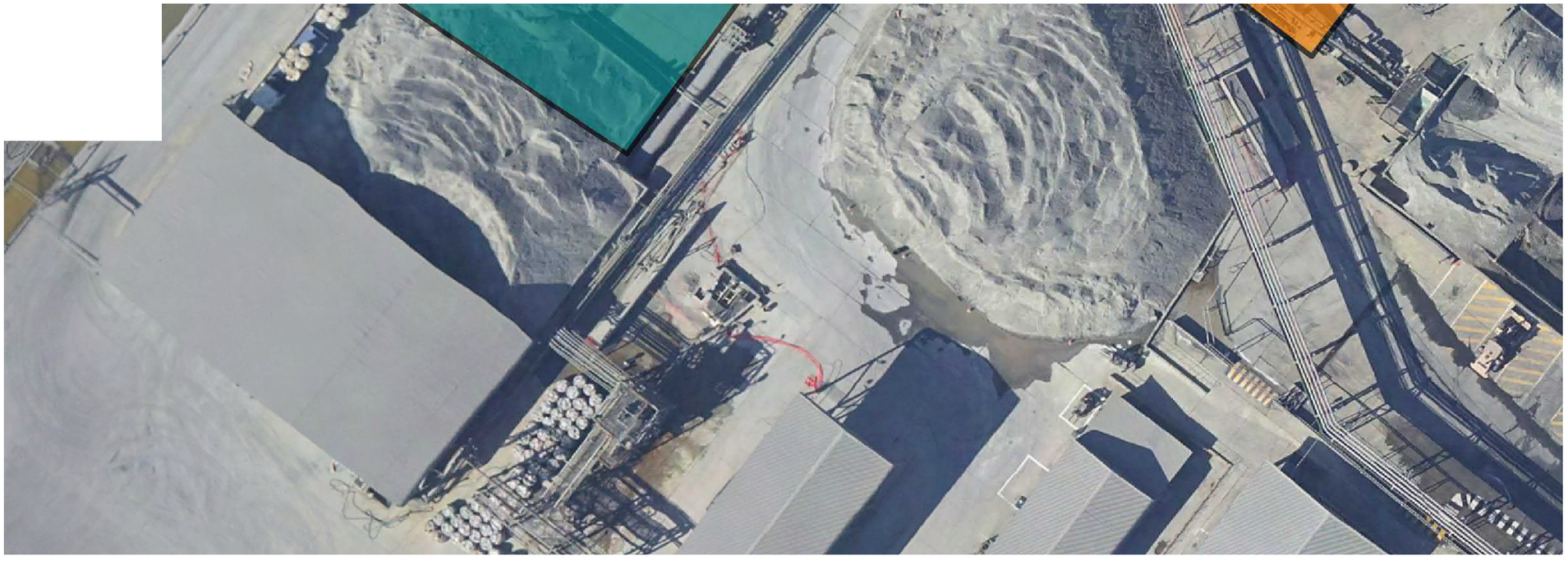
4.1 DESCRIPTION OF THE PROPOSED ACTIVITY

Impala is planning to increase its flash drying capacity, which requires the installation of a second flash dryer (Phase 1) and associated feed circuit modifications (in Phase 2). This will increase filter cake treatment capacity, which in turn will increase and improve toll concentrate stockpile reclamation capabilities. The main project components that make up each phase are listed in Table 4-1 below.

TABLE 4-1: PROJECT COMPONENTS FOR THE INCREASED FLASH DRYING CAPACITY

Second Flash Dryer (Phase 1)	**Flash Drying Feed Circuit Upgrade (Phase 2)**
The main components of Phase 1 include: • transfer tower; • wet feeder; • wet feed conveyors; • flash dryer (similarly sized to the existing dryer); and • bag house.	The main components of Phase 2 include: • structural modifications include; • feed distribution tower; • filter Plant; and • wet feed conveyors.

The detailed site layout is presented in Figure 3.



4.1.1 Second Flash Dryer (Phase 1)

The main project components associated with Phase 1 of the project include the following:

- **wet feed**: A wet concentrate screw feeder inclusive of a transfer feed conveyor, a magnetic separator and intermediate conveyor transfer tower;
- **heat source:** A fluid bed combustor inclusive of a coal reticulation system, hot ducts, stack and integrated diesel burner system;
- **second Flash dryer:** The flash dryer comprising a twin shaft back mixer, disintegrator, drying column, primary cyclones, multi-clone, a baghouse, exhaust fan, stack and a 500-tonne product silo and interconnecting ducting;
- **dry product pneumatic transfer system:** Two dense pneumatic concentrate transfer systems;
- **utility reticulation:** An air and diesel reticulation system, comprising piping, pumps and air dyers;
- **electrical equipment and reticulation:** Additional electrical equipment and reticulation (cable racking, electrical panels, lighting and lightening protection as well as a 380V transformer); and
- **instrumentation:** Provision of plant PLC and control equipment, cable racking and cables as well as all relevant instrumentation. This package also includes systems integration and process interfacing.

The second flash dryer will be similarly sized and be of similar design to the existing dryer (i.e. 52.8 tph wet; 45 tph dry), since this will allow scheduled maintenance with minimal impact on throughput, as well as ensure maximum compatibility of spares between the two production units.

4.1.2 Flash Drying Feed Circuit Upgrade (Phase 2)

The main project components associated with Phase 2 of the project include the following:

- **feed distribution:** Installation and commissioning of two new wet concentrate screw feeders complete with a common wet feed bin;
- **wet feed conveyor:** Installation of all structures, conveyors and the restructuring and extension of the existing primary wet feed conveyor;
- **filter plant:** Design, procurement, supply as well as installation and commissioning of a filtration plant, complete with conveyor transfer to the common wet feed bin. The existing re-pulping station will be demolished to allow for the establishment of the filter plant;
- **electrical equipment and reticulation:** Additional electrical equipment and reticulation (cable racking, electrical panels, lighting and lightening protection as well as variable speed drives); and
- **instrumentation:** Provision of plant PLC and control equipment, cable racking and cables as well as all relevant instrumentation. This package also includes systems integration and process interfacing.

4.1.3 Transportation System

Access to the Smelter Complex will be through existing road networks (via Lefaragatlha or Luka road). Given that the capacity of the Smelter Complex does not change as a result of the project, it is likely that there would not be an increase of matte transported offsite.

4.1.4 Life of project and remaining life of mine

It is anticipated the construction phase activities would be undertaken for a period of 30 months (2.5 years) and in a phased approach (i.e. Phase 1 (approximately 18 Months) and Phase 2 (approximately 12 months)). This will

allow for the continuation of the current flash drying throughput throughout the life of the mine. The remaining life of mine is approximately 20 years.

4.1.5 Areas of disturbance

The total project area for Phase 1 and Phase 2 covers an area of approximately 0.14 ha.

5 ENVIRONMENTAL RISK ASSESSMENT

5.1 RISK ASSESSMENT METHODOLOGY

The methodology applied to assess the significance of risks is provided in the table below.

TABLE 5-1: IMPACT ASSESSMENT METHODOLOGY

Note: Part A provides the definition for determining impact consequence (combining intensity, spatial scale and duration) and impact significance (the overall rating of the impact). Impact consequence and significance are determined from Part B and C. The interpretation of the impact significance is given in Part D.

PART A: DEFINITIONS AND CRITERIA*		
Definition of SIGNIFICANCE		Significance = consequence x probability
Definition of CONSEQUENCE		Consequence is a function of intensity, spatial extent and duration
Criteria for ranking of the INTENSITY of environmental impacts	VH	Severe change, disturbance or degradation. Associated with severe consequences. May result in severe illness, injury or death. Targets, limits and thresholds of concern continually exceeded. Substantial intervention will be required. Vigorous/widespread community mobilization against project can be expected. May result in legal action if impact occurs.
	H	Prominent change, disturbance or degradation. Associated with real and substantial consequences. May result in illness or injury. Targets, limits and thresholds of concern regularly exceeded. Will definitely require intervention. Threats of community action. Regular complaints can be expected when the impact takes place.
	M	Moderate change, disturbance or discomfort. Associated with real but not substantial consequences. Targets, limits and thresholds of concern may occasionally be exceeded. Likely to require some intervention. Occasional complaints can be expected.
	L	Minor (Slight) change, disturbance or nuisance. Associated with minor consequences or deterioration. Targets, limits and thresholds of concern rarely exceeded. Require only minor interventions or clean-up actions. Sporadic complaints could be expected.
	VL	Negligible change, disturbance or nuisance. Associated with very minor consequences or deterioration. Targets, limits and thresholds of concern never exceeded. No interventions or clean-up actions required. No complaints anticipated.
	VL+	Negligible change or improvement. Almost no benefits. Change not measurable/will remain in the current range.
	L+	Minor change or improvement. Minor benefits. Change not measurable/will remain in the current range. Few people will experience benefits.
	M+	Moderate change or improvement. Real but not substantial benefits. Will be within or marginally better than the current conditions. Small number of people will experience benefits.
	H+	Prominent change or improvement. Real and substantial benefits. Will be better than current conditions. Many people will experience benefits. General community support.
	VH+	Substantial, large-scale change or improvement. Considerable and widespread benefit. Will be much better than the current conditions. Favourable publicity and/or widespread support expected.
	VL	Very short, always less than a year. Quickly reversible

Criteria for ranking the DURATION of impacts	L	Short-term, occurs for more than 1 but less than 5 years. Reversible over time.
	M	Medium-term, 5 to 10 years.
	H	Long term, between 10 and 20 years (likely to cease at the end of the operational life of activity).
	VH	Very long, permanent, +20 years (Irreversible, Beyond closure).
Criteria for ranking the EXTENT of impacts	VL	A part of the site/property.
	L	Whole site.
	M	Beyond the site boundary, affecting immediate neighbours.
	H	Local area, extending far beyond site boundary.
	VH	Regional/National

PART B: DETERMINING CONSEQUENCE							
INTENSITY = VL							
DURATION	Very long	VH	Low	Low	Medium	Medium	High
	Long term	H	Low	Low	Low	Medium	Medium
	Medium term	M	Very Low	Low	Low	Low	Medium
	Short term	L	Very low	Very Low	Low	Low	Low
	Very short	VL	Very low	Very Low	Very Low	Low	Low
INTENSITY = L							
DURATION	Very long	VH	Medium	Medium	Medium	High	High
	Long term	H	Low	Medium	Medium	Medium	High
	Medium term	M	Low	Low	Medium	Medium	Medium
	Short term	L	Low	Low	Low	Medium	Medium
	Very short	VL	Very low	Low	Low	Low	Medium
INTENSITY = M							
DURATION	Very long	VH	Medium	High	High	High	Very High
	Long term	H	Medium	Medium	Medium	High	High
	Medium term	M	Medium	Medium	Medium	High	High
	Short term	L	Low	Medium	Medium	Medium	High
	Very short	VL	Low	Low	Low	Medium	Medium
INTENSITY = H							
DURATION	Very long	VH	High	High	High	Very High	Very High
	Long term	H	Medium	High	High	High	Very High
	Medium term	M	Medium	Medium	High	High	High
	Short term	L	Medium	Medium	Medium	High	High
	Very short	VL	Low	Medium	Medium	Medium	High
INTENSITY = VH							
DURATION	Very long	VH	High	High	Very High	Very High	Very High
	Long term	H	High	High	High	Very High	Very High
	Medium term	M	Medium	High	High	High	Very High
	Short term	L	Medium	Medium	High	High	High
	Very short	VL	Low	Medium	Medium	High	High

VL	L	M	H	VH
A part of the site/ property	Whole site	Beyond the site, affecting neighbours	Extending far beyond site but localised	Regional/ National
EXTENT				

PART C: DETERMINING SIGNIFICANCE							
PROBABILITY (of exposure to impacts)	Definite/ Continuous	VH	Medium	Medium	High	Very High	Very High
	Probable	H	Low	Medium	Medium	High	Very High
	Possible/ frequent	M	Low	Low	Medium	Medium	High
	Conceivable	L	Very Low	Low	Low	Medium	Medium
	Unlikely/ improbable	VL	Negligible	Very Low	Low	Low	Medium
			VL	L	M	H	VVH
			CONSEQUENCE				

PART D: INTERPRETATION OF SIGNIFICANCE	
Significance	Decision guideline
Very High	Potential fatal flaw unless mitigated to lower significance.
High	It must have an influence on the decision. Substantial mitigation will be required.
Medium	It should have an influence on the decision. Mitigation will be required.
Low	Unlikely that it will have a real influence on the decision. Limited mitigation is likely required.
Very Low	It will not have an influence on the decision. Does not require any mitigation
Negligible	Inconsequential, not requiring any consideration.

***VH = very high, H = high, M= medium, L= low and VL= very low and + denotes a positive impact.**

5.2 IDENTIFICATION OF STRATEGIES TO MANAGE AND MITIGATE THE IMPACTS AND RISKS

Impacts and risks identified for the project that are likely to extend post-closure are included Table 5-2 below. Strategies to manage and mitigate impacts and risks have been identified, taking into account, the findings of specialist studies (where relevant), input from stakeholders and consideration of the project plan. These management and mitigation strategies are aimed at controlling the project activities and process which have the potential to result in environmental degradation.

TABLE 5-2 IMPACTS AND RISKS IDENTIFIED FOR THE PROJECT

Aspect	Potential impact	Impact discussion and reference to mitigation measures	Significance	
			Unmitigated	Mitigated
Geology	Loss and sterilisation of mineral resources	**Impact:** • mineral resources can be sterilized and/or lost through the placement of infrastructure and activities in close proximity to mineral resources; and • the project footprint is within an existing Impala Smelting Complex and does not influence current underground mining activities. It follows that the project will not result in the sterilisation of any mineral reserves. **Mitigation measures:** • not applicable.	Insignificant	
Topography	Altering topography	**Impact:** • the project presents hazardous excavations and infrastructure into or off which third parties and animals can fall and be harmed; and • the project does not present any new infrastructure/activities that differ from those already approved within the Smelter Complex. Further to this the footprint of the project is within the access controlled secured Smelter Complex. **Mitigation measures:** • not applicable.	Insignificant	
Soil and land capability	Loss of soil resources and land capability through contamination and physical disturbance	**Impact** • soil is a valuable resource that supports a variety of ecological functions. • soil is the key to re-establishing post closure land capability. • soil resources can be lost through contamination and through physical disturbance (erosion and compaction). This in turn can result in a loss of soils as an ecological driver because it can create a toxic environment for vegetation and ecosystems that rely on the soil; and • given that the project footprint is within the concrete lined Smelter Complex, soil resources and associated land capability have already been compromised. It follows that the proposed infrastructure will not have an impact on valuable soil resources or related land capability. **Mitigation measures:** • not applicable.	Insignificant	

Aspect	Potential impact	Impact discussion and reference to mitigation measures	Significance	
			Unmitigated	Mitigated
Biodiversity	Physical destruction and general disturbance of biodiversity	**Impact:** • areas of ecological sensitivity include functioning biodiversity areas with species diversity and associated intrinsic value. Linkages between these areas have value because of the role they play in allowing the migration or movement of flora and fauna between the areas, which is a key function for a broader ecosystem. • the transformation of land for any purpose increases the destruction of the site-specific biodiversity, the fragmentation of habitats, reduces its intrinsic functionality and reduces the linkage role that undeveloped land fulfils between different areas of biodiversity importance; and • the project is located is within the concrete lined Smelter Complex and as such all-natural vegetation has been removed. Further to this, the Smelter Complex is an enclosed facility and does not allow for the natural movement of faunal species, while noisy and vibrating equipment scare off faunal species. It follows that the project will not have an impact on biodiversity. **Mitigation measures:** • not applicable.	Insignificant	
Surface water	Alteration of natural drainage patterns	**Impact:** • surface water resources include drainage lines and paths of preferential flow of stormwater runoff. Mine related activities have the potential to alter the drainage of surface water through the establishment of infrastructure. Rainfall and surface water run-off will be collected in all areas that have been designed with water containment infrastructure; and • the collected run-off will therefore be lost to the catchment and can result in the alteration of drainage patterns. Collected run-off within the Smelter Complex is already contained within the existing stormwater management system for the Complex. The project location within the existing Smelter Complex will not alter the collected run-off contribution to the exiting stormwater management area. It follows that the project will not have an impact on the alternation of natural drainage patterns. **Mitigation measures:** • not applicable.	Insignificant	

Aspect	Potential impact	Impact discussion and reference to mitigation measures	Significance	
			Unmitigated	Mitigated
	Contamination of surface water resources	**Impact:** • the project presents contamination sources that have the potential to pollute surface water, through accidental spills and leaks. These do not differ from current Smelter contamination sources. • the closest surface water resources are the non-perennial Leragane stream, its tributary and wetland (based on provincial database only, not a true reflection of on-site condition). • without mitigation, contaminates can reach surface water resources, which can be used by third parties for domestic purposes. • with mitigation it is unlikely for contamination to reach surface water resources as these will be contained within the Smelter Complex. Further to this, the surface water resources are non-perennial and communities do have access to reticulated water. **Mitigation measures:** • continued implementation of containment of dirty water. • continued monitoring and investigation (where necessary). • equivalent alternative water supply if Impala operations result in contamination of a surface water resources that cannot be accessed by third parties.	Medium	Very Low
Groundwater	Contamination of groundwater resources	**Impact:** • groundwater is a valuable resource and is defined as water which is located beneath the ground surface in soil/rock pore spaces and in the fractures of lithological formations. Activities such as the handling and storage of general and hazardous wastes have the potential to result in the loss of groundwater resources, both to the environment and third-party users, through pollution; and • the project is located within the existing Smelter Complex on an impermeable concrete layer. The project activities/infrastructure is unlikely to contribute to groundwater contamination impacts. **Mitigation measures:** • not applicable.	Insignificant	
Air quality	Air pollution (the flash dryer together	**Impact:** • the project presents emission sources that have the potential to contribute to air pollution, through dust fallout, fine particulate matter (PM_{10} and $PM_{2.5}$)		

Aspect	Potential impact	Impact discussion and reference to mitigation measures	Significance	
			Unmitigated	Mitigated
	with existing smelter activities)	and gaseous emissions (SO_2, NO_x and CO) as a result of transportation, handling materials as well as operation of the second flash dryer emitting through a dedicated baghouse stack; • **scenario 1 (Flash dryer only):** Based on modelled results, with and without mitigation the project is unlikely to exceed the NAAQS and NDCR limits; and • **scenario 2 (the flash dryer together with existing smelter activities):** Based on modelled results, with and without mitigation, the Smelter operations (are unlikely to exceed the NAAQS and NDCR limits). **Mitigation measures:** • continued implementation of the Impala air quality monitoring programme.		
Air quality	Air pollution (flash dryer with all Impala operations)	**Impact:** • **scenario 3 (flash dryer with all Impala operations):** Based on the model results, the PM_{10} NAAQS, $PM_{2.5}$ NAAQS and the NO_2 1-hour NAAQS may be exceeded at the closest receptors in future (post 2030). This may be avoided and mitigated through the implementation of new technology by Impala operations within the next 10 years; • based on the measured data from the ambient air quality monitoring stations, which measures the concentrations rates from all current sources in the area, not just Impala, the NAAQS limits are exceeded at Kelekitso Early Learning Centre and Impala Platinum Hospital for $PM_{2.5}$, PM_{10} and NO_x. Crushing and screening, vehicles travelling on paved roads and vehicle exhausts have been identified as the major contributors to air quality in these sites. • emission sources in the surface use area are not only from the Impala operations but also includes surrounding industries/mines and community activities; • modelled SO_2 levels in terms of the NAAQS are not exceeded. Therefore, it is highly unlikely that the Impala operations will generate human health impacts relating to SO_2 emissions; • the modelled results exceed the daily average NDCR limit on-site and for residential areas at the Platinum Village. However, it is believed that this sample was contaminated or tampered with as a result of construction activities in the vicinity and cannot be used for compliance.	High Medium (Dust Fallout)	Medium Low (Dust Fallout)

Aspect	Potential impact	Impact discussion and reference to mitigation measures	Significance	
			Unmitigated	Mitigated
		• based on monitoring data, the dustfall rates from all current sources in the area, not just Impala, the dustfall rates are compliant with the NDCR at all sites. **Mitigation measures:** • continued implementation of the Impala air quality monitoring programme; • implementation of measures for reduction of fugitive PM and vehicle exhaust emission; and • implementation of control efficiencies for vehicles traveling on paved and unpaved roads.		
Noise	Increase in disturbing noise levels	**Impact:** • mining activities and infrastructure have the potential to cause an increase in ambient noise levels that may cause a disturbance to nearby sensitive receptors. It is however important to note that, the noise contributions associated with the project are unlikely to be noticeable in the context of the existing noise environment within the Smelter Complex. **Mitigation measures:** • not applicable.	Insignificant	
Visual	Negative visual views	**Impact:** • mining infrastructure has the potential to alter the landscape character of an area through the establishment of infrastructure. It is however important to note, that the establishment of infrastructure as a result of the project will be absorbed within the Smelter Complex; and • the project is unlikely to generate additional negative views that will be noticeable from Ga-Luka, located approximately 2 km away from the project location. **Mitigation measures:** • not applicable.	Insignificant	

Aspect	Potential impact	Impact discussion and reference to mitigation measures	Significance	
			Unmitigated	Mitigated
Traffic	Road disturbance influence on the level of service	**Impact:** • existing traffic volumes comprising public traffic and traffic from the Impala Smelter operations utilise several roads intersections. The existing road network of relevance to the project (Lefaragatlha Road, Luka Road and R565) are considered to have an acceptable level of service; and • The project is not anticipated to generate a significance increase in the number of additional trucks (additional 26 trucks per day, transporting toll) and would therefore have an insignificant impact on the condition of the existing road network. **Mitigation measures:** • not applicable.	Insignificant	
Traffic	Road safety impacts	**Impact:** • traffic from mining projects has the potential to result in public road safety issues such as pedestrian accidents and vehicle accidents. • the project will result in additional trucks transporting toll material using Lefaragatlha Road, Luka Road and Road R565. Construction related traffic is limited. • the Lefaragatlha Road and Luka Road have a medium sensitivity as they run through communities. These roads require geometric upgrade in the context of existing public infrastructure. • in the unmitigated scenario the significance is high, particularly where the geometric upgrades are not implemented. • in the mitigated scenario the significance reduces to medium because the frequency of accidents is expected to reduce. **Mitigation measures:** • undertake a road safety assessment on roads adjacent the Impala Smelter Complex including Intersections A, B, C and F to determine the need for the reflective studs, updating and maintaining road markings and provision of relevant road traffic signs where required. • provide Impala Smelter Complex workers and contractor workers with training on road safety; and • Run road safety and awareness campaigns at the mine	High	Medium

Aspect	Potential impact	Impact discussion and reference to mitigation measures	Significance	
			Unmitigated	Mitigated
Heritage/cultural and palaeontological resources	Loss of heritage/cultural and Palaeontological resources	**Impact:** • in general, the project area is situated in the Central Bankeveld which has a rich archaeological heritage dating from prehistoric and historic (or colonial) periods, which form a record of cultural heritage of most groups living in South Africa. However, none of the identified heritage resources lies within the project footprint; and • the paleontological studies conducted indicated that the surface use areas are situated on underlying igneous rocks of the Precambrian Rustenburg Layered Suite of the Bushveld Igneous Complex and as such palaeontological resources are not associated with this underlying geology. In addition, the site is located within the disturbed footprint of the Smelter Complex. **Mitigation measures:** • not applicable.	Insignificant	

Aspect	Potential impact	Impact discussion and reference to mitigation measures	Significance	
			Unmitigated	Mitigated
Socio-economic	Inward migration	**Impact:** • mines tend to bring with them an expectation of employment in all project phases prior to closure. This expectation can lead to the influx of job seekers to an area which in turn increases pressure on existing communities, housing, basic service delivery and raises concerns around safety and security; and • the project is located within an existing Smelter Complex and will result in limited short-term employment opportunities through usage of registered community vendors during construction, therefore negative project-related socio-economic impacts including inward migration, which could place additional pressure on housing and municipal services, are not expected to occur. **Mitigation measures:** • not applicable.	Insignificant	
	Economic impact	**Impact:** • mining activities contribute towards a positive economic impact; • the project will allow for the creation of limited short-term employment for communities during the construction; and • the project will allow continuation of the current employment opportunities during operation, decommission and closure. **Mitigation measures:** • continued implementation of the existing Impala management actions pertaining to the procurement of local people (where possible) and procurement of local goods.	Insignificant	Very Low (Positive)
Land use	Change in land use	**Impact:** • there are a number of land uses in the surrounding project area which may be influenced by the project and associated potential environmental impacts; and • given that the Land use within the project is limited to mining as a result of the existing smelter operations, the project will not result in changes to the current land use. **Mitigation measures:** • not applicable.	Insignificant	

5.3 IDENTIFICATION OF INDICATORS

Key indicators will be defined which will facilitate evaluation of the ongoing environmental impacts and associated risk to closure (risk triggers). These key indicators will be evaluated through analysis of ongoing post closure monitoring results. With reference to Section 8, all infrastructure associated with the project will be removed and the project footprint will be rehabilitated through the re-establishment of vegetation.

Vegetative cover, is highly correlated with all the other major environmental parameters of the area, including erosion, dust, physical stability, chemical stability, soil quality and hydrology. Good vegetative cover results in a reduction in the volume of surface runoff, increases soil and slope stability, and leads to the formation of an organic layer. In addition, vegetative growth is visually correlated with successful rehabilitation (and/or protection of the surrounding environment). This is an extremely important indicator because it provides a simple, very effective and relevant measure of the lands' current (and/or future) capability.

5.4 REASSESSMENT OF RISKS

An environmental monitoring programme has been established for the project to provide early warning systems necessary to avoid environmental emergencies during the operation of the project, and for informing continual improvement of the mine closure plan. The operational monitoring programme relevant to the project is air quality.

Impacts requiring monitoring (including responsibility and frequencies) are detailed in Section 28 of the BAR for the project for further information (SLR, February 2021). The environmental manager will conduct internal management audits against the commitments in the EMPr reports in accordance with an annual audit plan. The audit findings will be documented for both record keeping purposes and for informing continual improvement of the mine closure plan. In addition, an independent qualified professional conducts an environmental audit in accordance with the relevant National Environmental Management Act, No. 107 of 1998 (NEMA) Regulations (GNR 982, 2014).

5.5 FINANCIAL PROVISION FOR LATENT ENVIRONMENTAL IMPACTS

The costs associated with the post closure management and monitoring of environmental impacts has been estimated and included in the overall closure cost liability calculations (see Section 13). No specific residual or latent environmental impacts have been costed at this stage. Additional remediation activities (i.e. remediation activities not currently anticipated, and if required) will be identified during the on-going operation of the project through the air quality monitoring programmes, environmental audits and/or updated risk assessment.

6 CLOSURE AND DESIGN PRINCIPLES

6.1 LEGAL AND GOVERNANCE FRAMEWORK

This report has been drafted in accordance with the Financial Provisioning Regulations, 2015 (GNR 1147 of 20 November 2015), as amended, for inclusion into the BAR for the project.

It is a requirement of the Environmental Impact Assessment Regulations, 2014 (GNR 982 of 4 December 2014) (as amended) where the application for an environmental authorisation is for prospecting, mining, exploration, extraction and primary processing of a mineral or petroleum resource or activities directly related thereto, the closure plan must address the requirements as set in the Financial Provisioning Regulations, 2015 (GNR 1147).

It is a requirement of the Mineral and Petroleum Resources Development Amendment Bill, 2013 (Bill 15 of 2013) that the holder of a mining right must make the prescribed financial provision for the rehabilitation and management of any negative environmental impacts due to mining activities.

6.2 VISION, OBJECTIVES AND TARGETS FOR CLOSURE

The vision, objectives and targets for closure have been developed against local environmental and socio-economic context of the project, as well as, regulatory requirements and stakeholder issues and concerns.

Stakeholders will continuously be involved in the closure planning process throughout the mine life. This project forms part of the overall closure for Impala. Impala will strive to maintain a good working relationship with stakeholders and the local communities in which they operate. Agreements and final approval will be sought from authorities as closure approaches.

6.3 VISION FOR CLOSURE

In accordance with the Financial Provisioning Regulations, 2015 (GNR 1147 of 20 November 2015), Impala is revising their FY2021 annual financial provision update to comply with these Regulations. In this regard, the overall vision for Impala will be defined as part of the FY2021 annual financial provision update. The overall vision for closure for Impala is however to minimise the impacts associated with the closure and decommissioning of the mine and to restore the land to a functioning post-mining land use of grazing. In

6.4 OBJECTIVES FOR CLOSURE

The preliminary closure plan objectives and principles have been developed for the project against the background of the mine location in the North West. These objectives are in line with current approved EMPrs and include the following:

- that environmental damage is minimised to the extent that it is acceptable to all parties involved;
- that contamination beyond the project area by surface run-off, groundwater movement and wind will be prevented;
- that the project closure is achieved efficiently, cost effectively and in compliance with the law;
- rehabilitate the land to achieve an end use of grazing to the extent reasonably possible; and
- that the social and economic impacts resulting from project closure are managed in such a way that negative socio-economic impacts are minimised.

Any additional and more specific closure objectives tied to the final land use for the entire Impala operations, will be determined in collaboration with local communities and other stakeholders during the ongoing operations at Impala.

6.5 TARGETS FOR CLOSURE

In accordance with the Financial Provisioning Regulations, 2015 (GNR 1147 of 20 November 2015), Impala is revising their 2021 annual financial provision update to comply with these Regulations. In this regard, the targets for closure will be defined as part of the 2021 annual financial provision update. The closure target outcomes for the project are therefore assumed to be as follows:

- protect surrounding surface water, groundwater, soils and other natural resources from loss of utility value or environmental functioning;
- limit the rate of emissions to the atmosphere of particulate matter to the extent that degradation of the environmental functioning does not occur;
- maximise visual 'harmony' with the surrounding landscape; and
- create a final land use that has economic, environmental and social benefits for future generations.

6.6 ALTERNATIVE CLOSURE OPTION

No alternative closure and post closure options have been considered at this stage for the project. Any alternative and practical closure and post closure options will be investigated during the on-going operations at Impala.

6.7 MOTIVATION FOR PREFERRED CLOSURE OPTION

The preferred post closure option for the project is grazing.

6.8 MOTIVATION FOR CLOSURE AND POST CLOSURE PERIOD

The rehabilitated project area will require some form of aftercare and maintenance to ensure closure success. Activities will typically include erosion control; fertilising of struggling rehabilitated areas; monitoring of vegetation composition and diversity and control and eradication of alien plants.

A 5-year period for maintenance and aftercare is considered reasonable for the project given that this is time required for revegetation to re-establish. This is in line with the current 2020 annual financial provision for the mine (E-Tek, June 2020). In accordance with the Financial Provisioning Regulations, 2015 (GNR 1147 of 20 November 2015), Impala is revising their FY2021 annual financial provision update to comply with these Regulations. In this regard, any changes to post closure monitoring and maintenance will be defined as part of the FY2021 annual financial provision update.

6.9 ON-GOING RESEARCH FOR PROPOSED CLOSURE OPTIONS

Further research regarding the proposed and/or alternative closure options will be ongoing during the remaining life of mine. In this regard, monitoring of trial revegetation programmes to evaluate the effectiveness and sustainability of revegetation efforts; methods to further improve and/or optimise; as well as inform the post closure maintenance and aftercare period.

6.10 CLOSURE PLAN ASSUMPTIONS

The following general and site-specific assumptions and qualifications for each of the closure components is described below (E-Tek, February 2021).

6.11 GENERAL ASSUMPTIONS

- the financial provision represents a 10 Year closure forecast.
- the currency of estimate: South African Rands (ZAR).
- costing was based on today's value and no allowance was made for future value.
- as per regulatory requirements, no allowance was made to offset the value of scrap steel and or salvageable equipment to the liability.
- it was accepted that all information used to support the costing supplied by Impala and Specialists was accurate and true; this report only addresses the decommissioning and reclamation costs, equating to an outside (third party) contractor establishing on-site and conducting reclamation-related work. Other components such as staffing of the site after decommissioning, the infrastructure and support services (e.g. power supply, etc.) for this staff as well as workforce matters such as separation packages, retraining /re-skilling, etc. are outside the scope of this report.
- based on the above, dedicated contractors would be commissioned to conduct the demolition and reclamation work on the site. This would inter alia require the establishment and overhead costs for the contractors and hence, the allowance for preliminary and general (P&Gs) in the cost estimate/
- allowance has also been made for third-party contractors and consultants to conduct post-closure care and maintenance work as well as compliance monitoring.
- the financial provision calculated represents the financial requirements to implement the closure criteria identified and agreed upon as part of the closure plan.
- weighted percentages for P&Gs and Contingencies have been applied, Value-Added Tax (VAT) is also included:
    - P&G's – 6% Overall Allowance;
    - contingencies – 10% Overall Allowance; and
    - VAT – 15% Overall Allowance.

6.12 SITE-SPECIFIC ASSUMPTIONS

- the project will be located within the current Smelter Complex at Impala and will fall within the current disturbed footprint.
- the project will compile of two phases with the following timelines:
    - Phase 1: approximately 18 month period with final completion in Y2023; and
    - Phase 2: 12 month period with final completion in Y2024.
- no allowance has been made for surface rehabilitation as the proposed footprint area falls within the current disturbed footprint.
- steel and re-useable material, salvaged from the plant demolition and which has a salvage value, will be relocated to an authorized facility within a 30km radius to be sold or auctioned off. However, as per the regulatory requirements, the salvage value of steel and salvageable equipment have not been considered as part of the closure costing.
- it has been assumed all inert demolition waste will be disposed of into shaft portals before capping (pending formal authorization).
- no beneficial use for infrastructure is currently allowed for an all infrastructure will be removed.

7 POST CLOSURE LAND USE

With reference to Section 6.6, the post closure land use is grazing. .

8 CLOSURE ACTIONS

The 2020 annual financial provision update (E-Tek, June 2020), provides closure criteria for the plant and associated structures. In this regard, the project does not present different infrastructure to that already located within the exiting Smelter Complex. The existing closure criteria for the plant and associated structures which are also relevant to the project include (E-Tek, February 2021):

- removal of salvageable equipment (i.e. steel and re-useable material). All plants and related infrastructure will be dismantled and removed at closure;
- foundations and underground structures will be removed to 1m below ground level;
- general surface rehabilitation of footprint areas;
- remove hazardous waste; and
- remove all linear items (i.e. pipelines, power lines and conveyers) will be removed.

More detailed information is included in Appendix B (E-Tek, February 2021).

9 SCHEDULE OF CLOSURE ACTIONS

A 5-year aftercare and maintenance period has been provided for. Refer to Section 15.2 for further detail.

10 ORGANISATIONAL CAPACITY

The key personnel who ensure compliance with the EMPr commitments are the project's environmental specialists. As a minimum, these roles as they relate to the implementation of monitoring programmes and management activities include:

- minimise the areas of possible disturbance by project activities;
- inform and commit to follow the annual rehabilitation plan set out in the updated FY2021 annual financial provision;
- ensure that the monitoring programmes, audits, and plan updates/reviews are scoped and included in the annual mine budget;
- identify and appoint appropriately qualified specialists/engineers to undertake the monitoring, auditing and planning work;
- to integrate closure planning for the project into the overall mine operations and mine planning work;
- appoint specialists in a timeously manner to ensure work can be carried out to acceptable standards;
- liaise with the relevant structures in terms of the commitments in the Closure Plan;
- ensure that commitments in the Closure Plan are undertaken and implemented;
- establish and maintain good working relations with surrounding communities and landowners; and
- facilitate stakeholder communication, information sharing and grievance mechanism.

11 GAP IDENTIFICATION

In the event of the required information not being available, estimates were made based on experience and benchmarked against similar facilities elsewhere. Unit rates for the costing were obtained from E-TEK's existing database and/or through previous experience and consultation with demolition, earthworks contractors, and rehabilitation practitioners. Where required, these were adapted to reflect site-specific conditions.

Quantities will be verified and updated on an annual basis as part of the annual closure liability update. All variances will be captured and updated accordingly.

12 RELINQUISHMENT CRITERIA

Relinquishment criteria will be developed in communication with the regulatory authorities and project stakeholders to define specific endpoints that demonstrate the closure objectives have been met. Key indicators will be defined to facilitate evaluation of the ongoing environmental impacts and associated risk to closure (risk triggers). These key indicators will be evaluated through analysis of ongoing monitoring results.

Vegetative cover, is highly correlated with all the other major environmental parameters of the area, including erosion, dust, physical stability, chemical stability, soil quality and hydrology. Good vegetative cover results in a reduction in the volume of surface runoff, increases soil and slope stability, and leads to the formation of an organic layer. In addition, vegetative growth is visually correlated with successful rehabilitation (and/or protection of the surrounding environment). This is an extremely important indicator because it provides a simple, very effective and relevant measure of the lands' current (and/or future) capability.

13 CLOSURE COST ESTIMATION

13.1 CLOSURE COST ASSUMPTIONS

The closure plan and cost estimate assumptions are outlined in Section 6.10 (E-Tek, February 2021).

13.2 CLOSURE COST METHODOLOGY AND PROCEDURE

13.2.1 Methodology applied to liability model

The following approach was applied to determine the financial provision (E-Tek, February 2021):

- financial models were developed to cater for the requirements of GN R1147;
- the costing models were developed to address all the identified closure components applicable to Impala;
- the costing models provide the following output:
    - executive summary (Summary of all closure components and associated costs where applicable);
    - preliminary and general (P&G's): Allocation of P&G's for each component and provides weighted P&G's, as certain P&G's allowances, can vary per component);
    - contingencies (Allocation of Contingencies for each component and provides weighted Contingencies, as certain Contingency allowances can vary per component);
    - closure Components Summary (Provides a summary of all costs per closure component). The five main closure components have been identified as follows:
        - infrastructural aspects;
        - mining aspects;
        - biophysical closure aspects;
        - social closure aspects; and
        - general aspects.
    - closure Components (Breakdown of the detail facilities and aspects under each of the five main closure components); and
    - rates Table (Unit rates for various actions required).
- the following information is captured for each closure component where applicable:
    - reference map (Reference map number representing the associated closure component);
    - geographical (GEO) Reference (Reference number for each closure component as represented on the reference map);
    - year captured (When each component was captured into the model or updated);
    - cost component (Name of closure component captured);
    - description (Breakdown of the properties per cost component);
    - supporting documentation (Hyperlink to associated supporting information such as drawings, designs or Bill of Quantities);
    - liable (Yes or No, indication if the mine is liable for the component or not);
    - rate code (Assigned rate code from the rates table);

- quantity (Quantity per component captured);
- unit (Unit of measurement);
- unit rate (Rate assigned from the rate code aligned to the activity);
- unit total (Total amount for each component);
- liable value (Presentation of the total amount liable for per component); and
- notes (Captures any assumptions or dedicated information).

13.2.2 Assessment methodology

The approach followed with the determination of the closure costs could be summarized as follows:

- review of available information, identification of infrastructure that would need to be decommissioned at closure;
- gathering of relevant data which forms the basis of the calculation;
- all-newly proposed infrastructure was assigned with a reference number which can be referenced directly to the costing model;
- reference map was created indicating the position of the proposed infrastructure in relation to the existing infrastructure;
- closure criteria was developed and workshopped with Impala as part of the annual liability assessment;
- the closure forecast was based on the project timeframe;
- compilation of a Bill of Quantities capturing the quantities and actions relating to the closure of the different closure aspects (Microsoft excel format); and
- unit rates from E-TEK's database were updated to be aligned with the current market-related rates acquired from local civil- and demolition contractors.

13.2.3 Quantities

The quantities for the project were calculated by E-Tek (included in Appendix B) and were calculated from the site layout plan (

Figure 3) inclusive of the following components which will be constructed in Phase 1 and Phase 2:

- wet Feeder;
- wet Feeder Conveyors;
- transfer Tower;
- bag House;
- flash Dryer;
- feed Distribution Tower; and
- filter Plant.

13.2.4 Unit rates

Unit rates for the costing were obtained from E-TEK's existing database (included in Appendix B) and/or through previous experience and consultation with demolition, earthworks contractors, and rehabilitation practitioners. Where required, these were adapted to reflect site-specific conditions.

13.3 TIME, FEE AND CONTINGENCY COSTS

The following time, fee and contingency costs have also been included in the closure cost estimate based on E-Tek/ experience with similar projects.

TABLE 13-1: REHABILIATION AND CLOSURE CRITERIA FOR THE PROJECT (E-TEK, FEBRUARY 2021)

Description	Quantity and Unit
Contingency	10%
P&G's	6%

13.4 CLOSURE COST CALCULATION

The financial provision for the project represents a 10 Year forecast. The financial provision takes into consideration the project schedule for implementation. Impala are to financially provide for the highest liability figure out of the 10 Year closure forecast, this has been calculated to be **R1 668 891.81** (inclusive of VAT) at year 2024. The detailed calculations are included in Appendix B.

14 ANNUAL REHABILITATION PLAN

The project does not require the development of an annual rehabilitation plan as outlined in the Financial Provisioning Regulations, 2015 (GNR 1147 of 20 November 2015) that focusses on rehabilitation for the forthcoming 12 months. The Smelter Complex, inclusive of the project components will be operational for many years to come and the rehabilitation of this area would only be considered nearer to the end of life of mine (in approximately 20 years).

It is however important to note, that in accordance with the Financial Provisioning Regulations, 2015 (GNR 1147 of 20 November 2015), Impala is revising their FY2021 annual financial provision update to comply with these

Regulations. In this regard, the rehabilitation plan (where relevant) for the Impala operations, will be included as part of the FY2021 annual financial provision update.

15 MONITORING, AUDITING AND REPORTING

15.1 PRE-CLOSURE MONITORING, AUDITING AND REPORTING

The environmental specialist will conduct internal audits against the commitments in the EMPr. Pre-closure monitoring will be done in line with the proposed monitoring programme outlined in the BAR (SLR, February 2021).

In accordance with Regulation 55 of Mining Regulation 527 (23/04/2004), and Regulation 26 of the 2014 NEMA EIA Regulations (GNR 982 of 04 December 2014, as amended), the frequency of submission of an environmental audit report to the competent authority, including the timeframe within which a final environmental audit report must be submitted will be specified in the environmental authorisation.

In accordance with the Financial Provisioning Regulations, 2015 (GNR 1147), financial provision for closure, as well as, unforeseen premature closure will be updated on an annual basis. This update will be carried out by external and independent environmental consultants.

All costs associated with pre-closure monitoring, auditing and reporting are assumed to be covered under the operational expenditure of the mining operations, and have not been included in this report.

15.2 POST-CLOSURE MONITORING, AUDITING AND REPORTING

The project is located within the existing disturbed Smelter Complex. In accordance with the Financial Provisioning Regulations, 2015 (GNR 1147 of 20 November 2015), Impala is revising their FY2021 annual financial provision update to comply with these Regulations. In this regard, the overall post-closure monitoring, auditing and reporting for the mine, inclusive of the Smelter Complex will be outlined as part of the FY2021 annual financial provision update. It follows that the post closure aftercare and maintenance programme for the project will be aligned with the overall plan for the mine. For the purpose of the project, a typical post closure aftercare and maintenance programme has been provided in this section.

Post-closure care and maintenance, auditing and reporting will comprise:

- post-closure care and maintenance activities for 5 years period as outlined below;
- the continuation of external environmental audits by an independent professional until such time as a closure application is applied for; and
- the continuation of annual financial provision updates by external and independent environmental consultants until such time as a closure application is applied for.

TABLE 15-1: TYPICAL POST CLOSURE AFTERCARE AND MAINTENANCE PROGRAMME

Rehabilitation targets	Method of monitoring	Frequency of monitoring	Aftercare and maintenance period	Actions to be taken if target is not reached
Vegetation cover	Visual biodiversity inspections by a qualified person to ensure that	Annual monitoring	Aftercare and maintenance will	If a reasonable assessment indicates that the re-establishment of vegetation is

Rehabilitation targets	Method of monitoring	Frequency of monitoring	Aftercare and maintenance period	Actions to be taken if target is not reached
	vegetation cover has re-established.		take place for 5 years	unacceptably slow, the soil will need to be analysed and the area seeded with a seed mix of indigenous species.
Erosion control	Visual inspections to ensure that erosion gulley's have not developed	Annual monitoring	Aftercare and maintenance will take place for 5 years.	Erosion management measures and/or mitigation measures to be confirmed through ongoing field trials (if required)
Removal of alien and invasive species	Visual biodiversity inspections by a qualified person to ensure that alien invasive species have not established	Annual monitoring	Aftercare and maintenance will take place for 5 years	All illegal invader plants and weeds shall be dealt with as required in terms of the relevant legislation

The vegetative cover monitoring programme is designed to verify that rehabilitated areas are successfully developing a productive, self-sustaining ecosystem, which facilitates the post closure land use. The success of the vegetative cover is an important aspect in rehabilitation because of its impact on other parameters such as the extent of soil development, soil chemistry and surface erosion (by water and wind).

The major potential concerns with vegetative cover on rehabilitated areas are related to the adequacy of ground cover, the overall density of tree/shrub (woody) species and species composition (promote the growth of indigenous species and limit the spread of alien invasive species). The vegetative cover monitoring programme for the project will be designed to evaluate these parameters where appropriate to ensure long-term environmental protection and the suitability of rehabilitated areas for post closure land use.

16 CONCLUSION

Impala Platinum Limited (Impala), a member of the Implats group of companies, operates platinum group metals mining and processing operations that are located approximately 16 km north-north-west of the town of Rustenburg in the Bojanala Platinum District Municipality in the North West Province.

Impala is planning to increase its flash drying capacity, which requires the installation of a second flash dryer (Phase 1) and associated feed circuit modifications (in Phase 2). This will increase filter cake treatment capacity, which in turn will increase and improve toll concentrate stockpile reclamation capabilities

This report provides a preliminary closure plan and financial provision for the development of the project. This report has been compiled in accordance with GNR 1147 of the National Environmental Management Act (107/1998): *Regulations pertaining to the financial provision for prospecting, exploration, mining or production operations*, published 20 November 2015 (Financial Provisioning Regulations, 2015).

The closure cost calculation for the life of the project amounts to **R 1 668 891,87 (inclusive of VAT).** This provides a cost estimate for the project only to support the Basic Assessment process for the project. However this will be incorporated into the overall Impala closure plan and the annual financial provision updates.

17 REFERENCES

E-Tek Consulting, Financial Provision for the proposed increase of the flash dryer capacity and associated feed circuit modifications at the Impala Rustenburg Smelter Complex, February 2021.

E-Tek Consulting. Closure Liability Update FY2020. June 2020.

GNR 982 of the National Environmental Management Act (107/1998). Environmental Impact Assessment Regulations, 2014. December 2014.

National Environmental Management Act (107/1998): Regulations pertaining to the financial provision for prospecting, exploration, mining or production operations, published 20 November 2015, GNR 1147.

SLR, Environmental Impact Assessment and Environmental Management Programme Consolidation, 2012.

APPENDIX A CURRICULUM VITAE

APPENDIX B DETAILED CLOSURE COST CALCULATION

CURRICULUM VITAE

NATASHA SMYTH

ENVIRONMENTAL ASSESSMENT PRACTITIONER

EMPA, South Africa

QUALIFICATIONS

BSc Hons	2008	Environmental Sciences and Development
BSc	2007	Environmental and Biological Sciences

EXPERTISE

- Environmental Impact Assessments
- Environmental Compliance and Monitoring
- Environmental Due Diligence
- Management and facilitation of permitting and licensing processes
- Management and facilitation of stakeholder engagement processes
- Financial Provision, Closure and Rehabilitation Planning

Natasha is an environmental practitioner with SLR's South Africa office and is responsible for various environmental assessment projects. Natasha has ten years of experience within the Minerals sector, both as a project manager and assistant to various projects in South Africa and Africa.

Natasha has managed and assisted in a wide range of Environmental Impact Assessment projects for major and small-scale minerals developments throughout South Africa as well as in Namibia for many of the major operators within the minerals industry.

Since 2009 Natasha has been involved in over 50 projects of which she has project managed 36 projects varying in complexity with primary focus within the mining industry.

PROJECTS

Key aspects of Natasha's recent project experience are summarised below.

Environmental Assessment process for the expansion of a substation for Northam Platinum Limited (Limpopo Province), 2020 -2021	Project Director. Compilation of an amended EIA and EMPr for the expansion of a substation at the Smelter Complex at the Zondereinde Mine. The management of the stakeholder engagement process and a full set of specialists.
Environmental Assessment process for an additional flash dryer for Impala Platinum Limited (North West Province), 2020 -2021	Project Director. Compilation of a Basic Assessment report and an amendment of an Atmospheric Emissions Licence for the addition of an additional flash dryer at the Impala Rustenburg operation. The management of the stakeholder engagement process and a full set of specialists.
Environmental Assessment process for infrastructure changes at Lehating Mine and the consolidation of the Khwara and Lehating Mining Right areas (Northern Cape), 2020 - 2021	Project Manager. Compilation of a Basic Assessment report and an application for a Water Use Licence. The management of the stakeholder engagement process and a full set of specialists.

Environmental Assessment process for infrastructure changes for Maurla Platinum Mine (Limpopo Province) (Pty) Ltd, 2020 - 2021	Project Director. Compilation of Basic Assessment Report and the management of the stakeholder engagement process and specialists in support of changes to Shaft infrastructure at the Marula Mine.
Integrated Environmental Assessment Process for the Mamatwan Mine (Northern Cape Province) 2019 to 2021 - Manganese	Project Manager. Compilation of a Section 24G report, compilation of a scoping and environmental management programme reports, and an amendment of a Water Use Licence. The management of the stakeholder engagement process and a full set of specialists.
Environmental compliance audit for Mn48 (Pty) Ltd (Northern Cape), 2020	Project Manager. Environmental compliance audit against conditions of the approved EMPr and environmental authorisation for the Lehating Mine.
Environmental compliance audit for Khwara Manganese (Pty) Ltd (Northern Cape), 2020	Project Manager. Environmental compliance audit against conditions of the approved EMPr and environmental authorisation for the Khwara Mine.
Environmental Compliance Assessment of the Lily and Barbrook Gold Mines (Limpopo Province), 2020	Project Manager. Legal environmental compliance assessment for the Lily and Barbrook Gold Mines and development of an Environmental and Social Action Plan.
Environmental Assessment process for prospecting rights for Khwara Manganese (Pty) Ltd (Northern Cape Province) 2019 to 2020 - Manganese	Project Manager. Compilation of Basic Assessment Report and the management of the stakeholder engagement process and specialists in support two separate prospecting right applications.
Environmental Assessment Process for the proposed alternative closure and rehabilitation strategy for the Tshipi Borwa Mine (Northern Cape Province) 2018 to 2019 - Manganese	Project Manager. Compilation of Basic Assessment Report and environmental management programme reports. The management of the stakeholder engagement process, multi-disciplinary specialist team both within South Africa and the UK. Assistant with the compilation of the Financial Provision Specialist Report.
Environmental Assessment Process for the merging of the Mamatwan Mine Sinterfontein Waste Rock dump and the Tshipi Eastern Waste Rock dump for the South32 Mamatwan mine (Northern Cape Province) 2019 - Manganese	Project Manager. Compilation of Basic Assessment Report and environmental management programme reports and the Water Use Licence Application. The management of the stakeholder engagement process specialist team including the compilation of the Financial Provision Specialist Report.
Minimum Air Quality Emissions Standard Postponement Application for Anglo American Platinum's Polokwane (Limpopo Province), Waterval (North West Province) and Mortimer Smelter (Limpopo Province) operations (2018 to 2019) - Platinum	Project Manager. Management of Stakeholder Engagement Process as part of an Air Quality Minimum Emissions Standards Postponement Application Process for the Waterval, Polokwane and Mortimer Smelter Complexes.

Minimum Air Quality Emissions Standard Postponement Application for the Zondereinde Northam Platinum Mine in the Limpopo Province in the Limpopo Province (2018 to 2019) - Platinum	Project Manager. Management of Stakeholder Engagement Process as part of an Air Quality Minimum Emissions Standards Postponement Application Process for the Zondereinde Smelter Complex.
Integrated Water Use Licence Application for the Lehating mine in the Northern Cape Province (2018 - 2019) - Manganese	Project Manager. Compilation of the Integrated Water and Waste Management Plan, Water Use Licence Application forms and the management of specialists in support of the Lehating Integrated Water Use Licence Application.
Integrated Water Use Licence Application for the new Khwara manganese mine in the Northern Cape Province (2018 - 2019) - Manganese	Project Manager. Compilation of the Integrated Water and Waste Management Plan, Water Use Licence Application forms, the management of specialists and authority liaison in support of the Khwara Integrated Water Use Licence Application.
Monthly environmental support for the Tshipi Borwa Mine (2018 – 2019) - Manganese	Project Manager. Off-site environmental support work.
Financial Provision for Infrastructure Changes at the Zondereinde Northam Platinum Mine in the Limpopo Province (2018) - Platinum	Project Manager. Compilation of the financial provision report for infrastructure changes at the Zondereinde Smelter Complex as part of a basic assessment process for changes to infrastructure at the smelter.
EMP commitments consolidation of the Tshipi and Mamatwan Mine for the mining of the barrier pillar in the Northern Cape Province (2018) - Manganese	Project Manager. Compilation of a barrier pillar mining commitments report to outline the collective environmental management programme, integrated water use licence and environmental authorisation commitments for both Tshipi and South32 specifically for the mining of the barrier pillar.
ESIA for the retreatment of copper tailings dams in the town of Kitwe in Zambia (2017 - 2018) - Copper	Project Manager. Compilation of scoping report and terms of reference. Compilation of the environmental and social impact assessment report to meet IFC requirements. Management of multi-disciplinary specialist studies. Co-ordination of specialist teams within Zambia and South Africa. Management of stakeholder engagement process.
Environmental compliance audit for the Sishen Dingelton resettlement site in the Northern Cape Province (2017)	Project Manager. Assess compliance with the conditions outlined in the environmental authorisation and the approved environmental management programme.
Environmental compliance audit for the Sishen Dingelton decommissioning site in the Northern Cape Province (2017)	Project Manager. Assess compliance with the conditions outlined in the environmental authorisation and the approved environmental management programme.
Atmospheric Emissions Compliance Audit for the Zondereinde Northam Platinum Mine in the Limpopo Province (2017) - Platinum	Project Manager. Assess compliance with the conditions of the atmospheric emissions licence for the Zondereinde Mine and report compilation.

Environmental compliance audit for the Northam Platinum Mine in the Limpopo Province (2017) - Platinum	Project Manager. Undertake an environmental compliance audit of the Zondereinde Mine in terms of applicable legislation and report compilation.
Independent Peer Review of the Vaal Gamagara Water Supply Scheme in the Northern Cape Province (2017)	Project co-ordinate. Management of specialists and review of environmental permitting aspects and assistance with report compilation.
Due diligence for a smelter complex and associated mine located in the North West Province (2016- 2017) - Ferrochrome	Project Manager. Team co-ordination and compilation of due diligence report
EIA and EMP for the development of the new Khwara underground mine in the Northern Cape Province (2016-2017) - Manganese	Project Manager. Compilation of scoping and environmental impact assessment and environmental management programme reports. Management of specialists and stakeholder engagement process and compilation of the financial provision report.
Environmental assessment process to cater for changes to the approved infrastructure layout at the Tshipi Borwa Mine in the Northern Cape Province (2012-2017) - Manganese	Project Manager. Compilation of scoping and environmental impact assessment and environmental management programme reports. The management of the stakeholder engagement process and specialists.
Preliminary close out audit for the Sishen Mine Dingleton Resettlement site near Kathu in the Northern Cape Province (2016)	Project Manager. Assess compliance with the conditions outlined in the environmental authorisation and the approved environmental management programme.
Update of the basic assessment report for the establishment of a diesel generator as part of dewatering infrastructure at the Evander No. 6 Shaft complex in the Mpumalanga Province (2016)	Project Manager. Update the basic assessment report to comply with the DMR report template
Environmental assessment process and air emissions license process for the establishment of the new Jeanette Mine in the Free State Province (2015-2016) - Gold	Project Manager. Compilation of scoping and environmental impact assessment and environmental management programme reports. Compilation of the technical supporting information required for a waste management license application and an air emissions license application. The management of the stakeholder engagement process and specialists.
Water Use License Compliance Audit for the UMK Mine in the Northern Cape Province (2015 - 2016) - Manganese	Project Manager. Assess compliance with the commitments included in the water use licenses issued and make recommendations for rectifying non-compliances and partial compliances identified during the audit.

Basic Assessment for undertaking prospecting related activities for Impala Platinum Mine in the North West Province (2015 -2016) - Platinum	Project Manager. Compilation of basic assessment report, management of specialists, management of stakeholder engagement process.
Environmental compliance audit for the UMK Mine in the Northern Cape Province (2015 -2016) - Manganese	Project Manager. Assess compliance with the conditions outlined in the environmental authorisation and the approved environmental management programme.
Environmental assessment process, waste management license process and water use license process for the establishment of a new Mokala Manganese Mine in the Northern Cape Province (2014-2016) - Manganese	Project Manager. Compilation of scoping and environmental impact assessment and environmental management programme reports. Compilation of the technical supporting information required for a water use license application process and submission of the waste management license application. The management of the stakeholder engagement process and specialists.
Environmental assessment process for the proposed construction of dewatering infrastructure and the development of a decant water pipeline in support of the proposed Evander Shaft 6 in the Mpumalanga Province (2014) - Gold	Project Manager. Compilation of a basic assessment report, the management of the stakeholder engagement process and the management of specialists.
Environmental legal gap analysis for Rappa Resources in the Gauteng Province (2014) - Gold	Project Manager. Compilation of an environmental legal gap analysis report to identify any inadequacies in existing approvals and to identify outstanding approvals in terms of the National Environmental Management Act 107 of 1998, the National Environmental Management: Waste Act 59 of 2008, the National Environmental Management: Air Quality Act 39 of 2004, and the National Water Act 36 of 1998 (NWA).
Environmental support work to meet the requirements of the approved environmental management programme and updating the water use license application for the UMK Mine in the Northern Cape Province (2009-2014) - Manganese	Project Manager. Environmental support with regards to assistance to the UMK Mine in implementing its environmental management programme commitments. This also includes quarterly stakeholder engagement processes, EMP performance assessments and quarterly audits. Updating the water use license and supporting documentation including a new integrated water and waste management plan and specialist management
Environmental Management Programme amendment for the Nooitgedacht Sand Quarry Mine in the Gauteng Province (2013) - Sand	Project Manager. Compilation environmental impact assessment and environmental management programme amendment report.
Proposed Kinsenda project amendment: underground mine and surface infrastructure for Meterox, Kinsenda Copper mine in the DRC (2013) - Copper	Project assistant. Assistance with the compilation of the environmental impact assessment and environmental management programme report.

The environmental assessment process to amend the existing environmental impact assessment report and environmental management programme report to cater for infrastructure changes as the Leeuwkop Platinum Mine in the North West Province (2012-2013) - Platinum	Project Manager. Compilation of scoping and environmental impact assessment and environmental management programme amendment reports. Submission of the waste management license application. The management of the stakeholder engagement process and specialists.
Environmental and social impact overview of the proposed development of a new training centre at the Impala Platinum Rustenburg Operation in the North West Province (2013) - Platinum	Project Manager. Compilation of a report to provide an overview of the potential environment and social impacts associated with the development of the proposed training centre.
Environmental Management Programme performance assessment of the Impala Rustenburg Operation in the North West Province (2012) - Platinum	Project assistant. Assistance with the on-site auditing and report writing required for the environmental management programme performance assessment
Prospecting environmental management plan renewal and amendment Afplats in the North West Province (2012) - Platinum	Project Manager. Compilation of the reports required for the renewal of a prospecting right, the amendment of an approved prospecting environmental management plan including the update of the financial provision and the management of the stakeholder engagement process.
Prospecting environmental management plan renewal and amendment (Impala Platinum Limited on behalf of Inkosi Platinum in the North West Province (2012) - Platinum	Project Manager. Compilation of the reports required for the renewal of a prospecting right, the amendment of an approved prospecting environmental management plan including the update of the financial provision and the management of the stakeholder engagement process.
Prospecting environmental management plan amendment Ntsimbintle Mining (Pty) Ltd) in the Northern Cape Province (2012) - Manganese	Project Manager. Compilation of the prospecting environmental management plan amendment report and specialist management.
The consolidation of Impala's fourteen existing approved environmental management programme reports into one consolidated report in the North West Province (2012) - Platinum	Project Manager. Compilation of a consolidated environmental impact assessment and environmental management programme report include the management of the stakeholder engagement process

Environmental evaluation of Pit8C at Impala Platinum in the North West Province (2012) - Platinum	Project Manager. Compilation of a report to evaluate if the approved EIA and EMP amendment report adequately caters for the proposed Pit8C conventional opencast mining area, in terms of the baseline environment, the impact assessment and the mitigation/management measures.
Environmental assessment process for the environmental impact assessment and environmental management programme amendment for a proposed new tailings dam, re-processing of an old tailings dam, rehabilitation of the old tailings and waste disposal site, and open pit expansion for Impala Platinum Limited (Rustenburg Operation) in the North West Province (2011-2012) - Platinum	Project Manager. Compilation of scoping and environmental impact assessment and environmental management programme reports. Compilation of the technical supporting information required for a water use license application process. The management of the stakeholder engagement process and specialists
EIA and EMP for the establishment of the Swakop Uranium Mine in Namibia (2011)	Project assistant. Project assistant with stakeholder engagement and managing specialists.
EIA and EMP for the establishment of the new Husab Uranium Mine in Namibia (2011) - Uranium	Project assistant. Project assistant with stakeholder engagement and managing specialists.
EIA and EMP for the linear infrastructure associated with the Swakop Uranium Mine in Namibia (2010-2011) - Uranium	Project assistant. Project assistant with stakeholder engagement and managing specialists.
Environmental assessment process for the establishment of the new Turquoise iron ore mine in the Limpopo Province (2010-2011) – Iron Ore	Project assistant. Assistance with the stakeholder engagement process.
Environmental assessment process (2010)	Project assistant. Assistance with the compilation of the environmental impact assessment and environmental management programme report.
Environmental assessment process for the establishment of the new Kalkfontein Platinum Mine in the Limpopo Province (2010)	Project assistant. Assistance with the stakeholder engagement process.
Prospecting EMP for platinum group metals for Braggite Resources in the Mpumalanga Province (2010)	Project manager. Compilation of a prospecting EMP and stakeholder management process.

Compilation of the EIA and EMP reports for the Lonshi Copper Mine located in the DRC (2009-02010)	Project Assistant. Assistance with the compilation of the EIA and EMP reports for the Lonshi Copper Mine
Licensing of various water uses at the South Deep Mine in the North West Province (2009)	Project assistant. Assistant with water use licensing application.
Stakeholder engagement process for the Everest Platinum Mine as part of an EMP amendment to the extension of mining activities and changes to surface infrastructure in the Mpumalanga Province (2009)	Project assistant. Assistance with the stakeholder engagement process.
Stakeholder engagement process for the EIA and EMP amendment process for the new Northern Cape Manganese Company Mine (2009)	Project assistant. Assistance with the stakeholder engagement process.

CURRICULUM VITAE

REINETT MOGOTSHI

JUNIOR ENVIRONMENTAL CONSULTANT

Environmental Management, Planning and Approvals, Africa

QUALIFICATIONS

PgDi	2018	Postgraduate Diploma in Environmental Management
BSc (Hons)	2014	BSc (Hons) Environmental Analysis and Management
BSc	2013	BSc Environmental Sciences

EXPERTISE

- Environmental and Social Impact Assessment
- Strategic Environmental Assessments
- Geographic Information System
- Stakeholder Engagement
- Screening Studies

Reinett has 6 years' experience in undertaking Environmental Impact Assessments in the agriculture, oil and gas, telecommunication, infrastructure, and renewable energy and mining sector. She has experience working in South Africa, Namibia, Equatorial Guinea, Angola, Benin, Zambia and Zimbabwe. Reinett's primary focus has been in the execution and management of environmental authorisation processes, waste management and Environmental Management Programs as required by environmental legislation.

PROJECTS

Projects that Reinett has worked on at SLR and prior to SLR

Closure of Inkosi prospecting rights in the North West Province (Present)	Project manager for the Inkosi prospecting right closure. Inkosi is planning the closure of its prospecting right. SLR has been appointed to support the client team with environmental impact assessment, rehabilitation and closure planning and financial provision calculations.
Closure of Imbasa prospecting right in the North West Province (Present)	Project manager for the Imbasa prospecting right closure Imbasa is planning the closure of its prospecting right. SLR has been appointed to support the client team with environmental impact assessment, rehabilitation and closure planning and financial provision calculations.
African Infrastructure Investment Managers (2019)	Commercial project manager for the Environmental and Social Impact Assessment for the Maria Gletta Power Plant in Benin. Reinett was responsible for research and updating the ESIA. She then took on the financial and technical role towards the end of the project.
Confidential Oil and Gas Project (2019)	Project consultant for the Environmental Impact Study for a 2D Seismic Data Acquisition in the Benguela and Namibe Basins in Angola. Reinett 's role entailed compilation of the report.
METISS (2018-2019)	Assistant project manager for the Environmental Impact Assessment for Metiss subsea telecommunications cable to be landed near Amanzimtoti in South Africa.

Indian Ocean Xchange (2018-2019)	Project consultant for the Environmental Impact Assessment for IOX subsea telecommunications cable to be landed near the East London IDZ, South Africa.
Eni (2018-2019)	Stakeholder Engagement Support for the Environmental and Social Impact Assessment for the offshore exploration drilling within Block ER236, Off the East Coast of South Africa. Reinett supported the project by managing the stakeholder database and recording comments received from interested and affected parties.
Noble Energy (2018)	Environmental Impact Assessment for Alen Gas Export Pipeline in Equatorial Guinea. Reinett was responsible for research and report compilation.
Distell Group Limited, South Africa (2018)	Project manager for the registration of biogas production for the Distell wastewater treatment plant.
Confidential Power Project (2018)	Project consultant for the Power Options Analysis for a mine in Madagascar. Reinett contributed to the power options analysis by reviewing the IFC General EHS guidelines, IFC sector-specific guidelines for solar and wind, World Bank Pollution Prevention and Abatement Hand and the AfDB Integrated Safeguards System.
Confidential Oil and Gas Project (2018)	Project consultant for the update of Environmental Impact Assessment for Offshore Seismic in Namibia.
Confidential Mining Project (2018)	Project consultant for the update of a Resettlement Action Plan in Limpopo. Reinett supported the project by providing assistance with reviewing policies, data capturing, mapping area of influence.
Guma Projects (2018)	Project consultant for the Part 1 Amendment Application for Three Olyven Kolk Photovoltaic Power Plants within Siyanda District Municipality, Northern Cape, South Africa. Reinett was involved in the completion of the applications for amendment, engagement with the competent authority and writing the motivation that there has been no change in the receiving environment for the project.
Letsatsi Solar Power (2018)	Project consultant for the Draft Retrospective Amendment Report Version 2 for the Letsatsi (Previously Southdrift) Solar Power Facility, Near Soetdoring Dam, Free State Province. Reinett was involved in drafting the amendment report and stakeholder engagement.
Juwi South Africa (2017)	Project manager for the Scoping and Environmental Impact Assessment for the proposed development of 300 MW Kap Vley Wind Energy Facility and supporting electrical infrastructure near Kleinzee in South Africa. Reinett was involved in the management of the Kap Vley Wind Energy facility project. Her role entailed the management of a specialists, reporting and stakeholder engagement process.
Department of Environmental Affairs (2017)	Project officer for Phase II of the Strategic Environmental Assessment for Wind and Solar PV Energy Development Projects in South Africa. Reinett's role entailed the management of extensive stakeholder engagement, sensitivity mapping for Bats and contracting of specialists a specialist.

Jam Rock (Pty) Ltd (2017)	Project manager for the Basic Assessment for the proposed development of a chicken broiler facility on Portion 40 of the Farm Jonathan 175- JQ near Brits in the North West Province. Reinett's role involved project management and support, report writing, compilation of socioeconomic baseline studies and stakeholder engagement.
Department of Environmental Affairs (2015-2017)	GIS Technician for the Special Needs and Skills Development Programme: Programme management. Reinett was responsible for mapping of the distribution of application received under the Special Needs Programme. She also produced thematic sensitivity maps using ArcGIS for the projects within the programme.
Alphomega Farming (2016)	Project manager for the Basic Assessment and Waste Management Licence for the proposed development of a pig production enterprise on Portion 18 of Portion 3 of the Farm Poortje 340-IQ, Vereeniging in South Africa. Reinett's role involved project management and support, report writing, compilation of socio-economic baseline studies and stakeholder engagement.

MEMBERSHIPS

SACNASP	Registered with the South African Council for Natural Scientific Professions as a Candidate Natural Scientist (Cand.Sci.Nat.) in Environmental Science (Reg. No. 117924)
IAIA	Member of the International Association for Impact Assessments (IAIA), South African Affiliate since 2017

LEON KOEKEMOER

Director / Senior Estimator & Project Manager

ABBREVIATED CURRICULUM VITAE

Mobile: +27 76 730 3983
Office: +27 18 294 3652
Email: lkoekemoer@etekconsulting.co.za

Nationality: South African
Gender: Male
Date of Birth: 16 April 1984

CAREER

- **Director, Senior Estimator & Project manager:** E-TEK Consulting, Potchefstroom (2011 - Present**)**
- **Senior Project Manager:** Beckers Building Contractors, Pretoria (2005 - 2011)
- **Lecturer (Quantity Surveying):** Technical University of Pretoria (2004 - 2005)

SELECTION OF KEY PROJECT EXPERIENCE

- **Afplats - Leeuwkop Platinum Mine (Gauteng):**
  Annual Closure Liability Assessments. Alignment of closure liabilities to GNR1147. Develop reference maps linked to closure liabilities. Onsite quantification of closure components. Development of GIS models. Closure Liability for EIA (2013 - 2020).
- **Anglo Coal - Mafube Colliery (Mpumalanga):**
  Annual Closure Liability Assessments. Alignment of closure liabilities to GNR1147. Develop reference maps linked to closure liabilities. Onsite quantification of closure components. Development of Closure and Rehabilitation plans (2012 - 2018).
- **Cronimet Chrome SA (Limpopo):**
  Annual Closure Liability Assessments. Alignment of closure liabilities to GNR1147. Closure Liability for EIA. Develop reference maps linked to closure liabilities. Onsite quantification of closure components. Development of Closure and Rehabilitation plan. Surface Water Specialist Report (SWSR) (2013 – 2018).
- **De Beers Group - Kimberley Diamond Mines (Northern Cape):**
  Closure Liability Assessment. Develop reference maps linked to closure liabilities. Onsite quantification of closure components. Development of Closure and Rehabilitation plan (2014).
- **De Beers Group - Venetia Diamond Mine (Limpopo):**
  Annual Closure Liability Assessments. Alignment of closure liabilities to GNR1147. Develop reference maps linked to closure liabilities. Onsite quantification of closure components. EIA projects pertaining VUP, Mix 03, RATT Plant and new on-site accommodation facility (2012 – 2019).
- **De Beers Group - Voorspoed Diamond Mine (Free State):**
  Closure Liability Assessment. Develop reference maps linked to closure liabilities. Onsite quantification of closure components. Development of Closure and Rehabilitation plan (2015).
- **Debswana - OLDM Diamond Mines (Botswana):**
  Closure Liability Assessment. Develop reference maps linked to closure liabilities. Onsite quantification of closure components. Development of Closure and Rehabilitation plan (2016).
- **Debswana - Jwaneng Diamond Mine (Botswana):**
  Closure Liability Assessment (2018 - 2019). Develop reference maps linked to closure liabilities. Onsite quantification of closure components. Development of Closure and Rehabilitation plan. Development of closure criteria (2018 - 2019).
- **Evraz Highveld Steel - Mapochs Mine (Mpumalanga):**
  Annual Closure Liability Assessments. Develop reference maps linked to closure liabilities. Onsite quantification of closure components. Rehabilitation Assessment (2011 - 2015).
- **First Quantum Minerals - Kansanshi Copper Mine (Zambia):**
  Closure Liability Assessment for EIA.

SPECIALISATION

- Mine Closure Liabilities and associated forecasts
- Rehabilitation Cash flows
- Quantification of closure components
- Development of Liability Models
- GIS models and mapping
- Development of closure criteria and closure solutions

KEY EXPERIENCE

- Project Management: Construction and Civil Projects.
- Construction: Commercial & Industrial (60M - 380M) and Civil (18M - 120M): Project Management, Cost Control, Task Scheduling, Programming, Contracts, Quality Control (QC), Quality Assurance (QA), Technical, Health and Safety auditing, and Risk Assessments.
- Estimating: Closure Liabilities, Closure Forecasts and Rehabilitation Cash flows.
- AutoCAD Application: Reference mapping and drafting.
- Facilitation of closure & rehabilitation planning related workshops
- Assist clients with training of the Mine closure planning process and Management of associated Liabilities
- Mine Closure Plans
- End land use planning
- Gap Analysis process
- Risk Assessments

LEON KOEKEMOER

Director / Senior Estimator & Project Manager

SELECTION OF KEY PROJECT EXPERIENCE (CONTINUE)

- **Gem Diamonds - Letšeng Diamond Mine (Lesotho):**
  Annual Closure Liability Assessments. Develop reference maps linked to closure liabilities. Onsite quantification of closure components. Development of Closure and Rehabilitation plan (2011 - 2018).
- **Implats - Impala Platinum Limited: Rustenburg operations (NW):**
  Annual Closure Liability Assessments. Alignment of closure liabilities to GNR1147. Develop reference maps linked to closure liabilities. Development of Standard Operating Procedure for Closure Liability Assessments. Onsite quantification of closure components. Developments of risk-based GIS models. EIA projects pertaining new shaft developments, tailings reprocessing and new opencast mining operations. SWMP, clean dirty water separation assessments GN704 (2011 - 2020).
- **Implats - Impala Refineries (Gauteng):**
  Closure Liability Assessments. Development of GIS models. Develop reference maps linked to closure liabilities. On-Site quantification of closure components (2012 - 2020).
- **Implats - Marula Platinum Mine (Limpopo):**
  Annual Closure Liability Assessments. Alignment of closure liabilities to GNR1147. Development of GIS models. Develop reference maps linked to closure liabilities. Onsite quantification of closure components (2011 - 2020).
- **Implats - Zimplats: Selous & Ngezi Operations (Zimbabwe):**
  Annual Closure Liability Assessments. Develop reference maps linked to closure liabilities. Onsite quantification of closure components. Development of Closure and Rehabilitation plan. Closure Training for operational personnel (2015 - 2020).
- **Kenmare Resources - Moma Titanium Minerals (Mozambique):**
  Closure Liability Assessment.
- **Lucara Diamond Corp - Boteti Diamond Mine (Botswana) for Geoflux:**
  Closure Liability Assessment. Develop reference maps linked to closure liabilities (2010 - 2013).
- **Lucapa Diamond Company - Mothae Kimberlite Mine (Lesotho):**
  Closure Liability Assessment. Develop reference maps.
- **Sasol Synthetic Fuels (Mpumalanga):**
  Closure Liability Assessment. Develop reference maps linked to closure liabilities (2011).
- **Trevali Mining Corporation - Perkoa Zinc Mine (Burkina Faso):**
  Development of integrated mine closure plan. Closure Liaiblity Assessment. Develop reference maps linked to closure liabilities. On-Site quantification of closure components (2019).

ACADEMIC QUALIFICATIONS

- National Diploma in Building - Technical University of Pretoria (2005)

MEMBERSHIPS AND AFFILIATIONS

- Association of South African Quantity Surveyors (ASAQS)

COURSES AND SKILLS

- AutoCAD Applicator - Prokon (2011)
- Comprehensive Health and Safety Officer (2009)
- Health and Safety Risk Assessment - 6-day course (2009)

BASIS OF ESTIMATE

FOR

IMPALA PLATINUM

CLOSURE LIABILITY ESTIMATE

FLASH DRYER EXPANSION

FINAL

REPORT NO: 00324

05 FEBRUARY 2021

DOCUMENT CONTROL

CLIENT:	**SLR Consulting**
Contact Person:	Natasha Smyth
Contact Number:	+27 11 467 0945
Email Address:	nsmyth@slrconsulting.com
CONSULTANT:	**E-TEK Consulting (Pty) Ltd**
Contact Person:	Leon Koekemoer
Contact Number:	+27 18 294 3652
Email Address:	lkoekemoer@etekconsulting.co.za
DOCUMENT TITLE:	**Basis of Estimate**
Order Number:	JBMR4422818
Project Number:	PN100455
Report Number:	RPT 00324
AUTHOR/S:	Leon Koekemoer
REVIEWER/S:	Jeanette Erasmus

DOCUMENT DISTRIBUTION:

REVISION	STATUS	ISSUED TO		DATE
		NAME	DESIGNATION	
0	Draft Report	Natasha Smyth	Environmental Manager	05/02/2021

DETAILS OF PRACTITIONERS

NAME	EXPERIENCE / PROFESSIONAL REGISTRATION
Leon Koekemoer	Leon is the Senior Estimator at E-TEK Consulting with 16 years' experience. He has a National Diploma in Building (N.Dip. Building) and is an Associate Member of the Association of South African Quantity Surveyors (ASAQS), registration no. 29649790. He was a Senior Project Manager for Beckers Building Contractors from 2005 – 2011, where his key roles included project management, cost control and quality control. Leon joined E-TEK in February of 2011 where he now specialises in the development of closure liabilities and models as well as assisting and advising in the closure planning process for mining and industrial sites. His key experience includes the calculation of environmental liabilities and the representation thereof in closure models. His expertise allows him to address all categories associated with liabilities such as closure liability cash flows, concurrent rehabilitation cash flows, auditing of liabilities and operational closure costing.

TABLE OF CONTENTS

LIST OF TABLES

APPENDICES

TERMS AND ABBREVIATIONS

TERMS AND ABBREVIATIONS	DESCRIPTION
BGQS	BGQS Consulting
BoQ	Bill of Quantities
Care and maintenance	This involves the maintaining and corrective action as required as well as conducting the required inspection and monitoring to demonstrate achievement of success of the implemented measures
Closure	This involves the application for closure certificate and initiation of transfer of on-going care and maintenance to third parties
Contingencies	This allows for making reasonable allowance for possible oversights/omissions and possible work not foreseen at the time of compilation of the closure costs. An allowance of between 10 percent and 20 percent would usually be made based on the accuracy of the estimations. The South African Department of Minerals and Energy Guideline (January 2005) requires an allowance of 10 percent
Decommissioning	This relates to the situation after cessation of operations involving the deconstruction/removal and/or transfer of surface infrastructure and the initiation of general site reclamation
DMR	Department of Mineral Resources
E-TEK	E-TEK Consulting
EMPR	Environmental Management Program Report
FRD	Fine Residue Dump
GA Drawing	General Arrangement Drawing
Impala	Impala Platinum (Pty)Ltd
Life of Mine Closure	Closure that happens at the planned date and/or time horizon. Previously referred to as Scheduled Closure
MPRDA	Minerals Petroleum Resources Development Act
NEMA	National Environmental Management Act
Post-closure	The period after mine closure
Preliminary and Generals (P&Gs)	This is a key cost item which is directly related to whether or not third-party contractors have applied for site reclamation. This cost item comprises both fixed and time-related charges. The former makes allowance for establishment (and dis-establishment) of contractors on-site, as well as covering their operational requirements for their offices (electricity /water /communications), latrines, etc. Time-related items make allowance for the running costs of the fixed charge items for the contract period
Premature Closure	The immediate closure of a site, representing decommissioning and reclamation of the site in its present state. Previously referred to as Unscheduled Closure

Reclamation	The reinstatement of a disturbed area into a usable state (not necessarily its pre-mining state) as defined by broad land use and related performance objectives
Rehabilitation	The return of a disturbed area to its original state, or as close as possible to this state
Remediation	To assist in the reclamation process by enhancing the quality of an area through specific actions to improve especially bio-physical site conditions
Site relinquishment	Receipt of closure certificate and handover to third parties for on-going care and maintenance, if required
SLR	SLR Consulting
WRD	Waste Rock Dump

1. INTRODUCTION AND SUMMARY

1.1. INTRODUCTION

E-TEK Consulting (Pty) Ltd (E-TEK) was requested by SLR Consulting (Pty) Ltd (SLR) to assist with the determination of the financial provision for the proposed installation of an additional flash dryer, upgrade of the flash drying feed and integration of a filtration plant into the feed circuit at the Impala Platinum Rustenburg Operation (Impala).

Impala is situated approximately 16km northwest of Rustenburg in the North West Province mining the western limb of the world-renowned Bushveld Complex by means of underground and opencast mining.

The financial provision was calculated according to the requirements of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA). (Refer to Government Notice – Regulation 1147) (GN R1147) published in November 2015.

This report summarises the financial provision required for the proposed project. The financial provision represents a 10 Year liability forecast as required by legislation:

Table 1: Financial Provision Forecast

OPERATION / PROJECT	PREMATURE CLOSURE	CLOSURE FORECAST
Proposed Flash Dryer	Y2021	Y2022 – Y2030

The following table presents a list of typical closure components and which were applicable as part of the calculation process:

Table 2: List of Closure Components

CLOSURE COMPONENTS		APPLICABLE
1	INFRASTRUCTURAL ASPECTS	
1.1	Plant and Related Structures	Yes
1.2	Shafts, Adits And Declines	No
1.3	Supporting Infrastructure	Yes
1.4	Underground Infrastructure	No
1.5	Social Infrastructure	No
1.6	Off-Site Infrastructure	No
1.7	Linear Items	Yes
1.8	Waste Disposal	Yes
1.9	River Diversion	No
2	MINING ASPECTS	
2.1	Opencast / Pit Areas	No
2.2	Waste Rock Dumps - Overburden and Spoils	No

CLOSURE COMPONENTS		APPLICABLE
2.3	Coarse Residue Deposits - Processing Waste	No
2.4	Fine Residue Deposits - Processing Waste	No
3	BIO-PHYSICAL CLOSURE ASPECTS	
3.1	Water Resources	No
3.2	Sensitive Habitats and Biodiversity	No
3.3	Land Use and Land Capability	No
3.4	Soil	No
3.5	Other; Air Quality and Topography	No
4	SOCIAL CLOSURE ASPECTS	
4.1	Employees	No
4.2	Interested and Affected Parties	No
4.3	Government	No
5	GENERAL ASPECTS	
5.1	General Surfaces	No
5.2	Post-Closure Monitoring and Maintenance	No
5.3	Specialist Studies	No

Note:

- Quantities were obtained from drawings, operational personnel and quantities determined through previous calculations.
- Rates used were obtained from E-TEK's existing database and in consultation with demolition and earthworks contractors. The rates are updated annually; and
- Closure cost estimates are based on the Y2021 rates.

1.2. SUMMARY

The financial provision represent a 10 Year forecast of the proposed project. The financial provision takes into consideration the proposed project schedule for implementation. Impala are to financially provide for the highest liability figure out of the 10 Year closure forecast, this has been calculated at:

- Closure Forecast (Y2024): R1 67 million (Rounded).

The above figure includes P&G's (6%), Contingencies (10%) and VAT (15%).

The following table provides a summary of the closure liability estimates based on the 10 Year Forecast:

Table 3: Executive Summary

IMPALA PLATINUM FINANCIAL PROVISION SUMMARY												
ESTIMATED CLOSURE COST ESTIMATES (INCLUDES P&G'S, CONTINGENCIES AND VAT AND EXCLUDES ESCALATION)			Premature Closure	Closure Forecast	Closure Forecast	Closure Forecast	Closure Forecast	Closure Forecast	Closure Forecast	Closure Forecast	Closure Forecast	Closure Forecast
CLOSURE COMPONENTS			2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	**INFRASTRUCTURAL ASPECTS**		**R 171 829,68**	**R 645 123,78**	**R 1 114 569,37**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**
1,1	PLANT AND RELATED STRUCTURES		R 88 420,41	R 509 579,82	R 956 670,86	R 1 027 583,66	R 1 027 583,66	R 1 027 583,66	R 1 027 583,66	R 1 027 583,66	R 1 027 583,66	R 1 027 583,66
1,2	SHAFTS, ADITS AND DECLINES		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
1,3	SUPPORTING INFRASTRUCTURE		R 27 700,31	R 58 019,06	R 58 019,06	R 88 337,81	R 88 337,81	R 88 337,81	R 88 337,81	R 88 337,81	R 88 337,81	R 88 337,81
1,4	UNDERGROUND INFRASTRUCTURE		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
1,5	SOCIAL INFRASTRUCTURE		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
1,6	OFF-SITE INFRASTRUCTURE		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
1,7	LINEAR ITEMS		R 27 862,38	R 27 862,38	R 27 862,38	R 58 046,63	R 58 046,63	R 58 046,63	R 58 046,63	R 58 046,63	R 58 046,63	R 58 046,63
1,8	WASTE DISPOSAL		R 27 846,57	R 49 662,51	R 72 017,06	R 77 075,28	R 77 075,28	R 77 075,28	R 77 075,28	R 77 075,28	R 77 075,28	R 77 075,28
2	**MINING ASPECTS**		**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**
2,1	OPENCAST / PIT AREAS		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
2,2	WASTE ROCK DUMPS - OVERBURDEN AND SPOILS		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
2,3	COARSE RESIDUE DEPOSITS - PROCESSING WASTE		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
2,4	FINE RESIDUE DEPOSITS - PROCESSING WASTE		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
3	**BIO-PHYSICAL CLOSURE ASPECTS**		**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**
3,1	WATER RESOURCES		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
3,2	SENSITIVE HABITATS AND BIODIVERSITY		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
3,3	LAND USE AND LAND CAPABILITY		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
3,4	SOIL		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
3,5	OTHER; AIR QUALITY AND TOPOGRAPHY		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
4	**SOCIAL CLOSURE ASPECTS**		**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**
4,1	EMPLOYEES		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
4,2	INTERESTED AND AFFECTED PARTIES		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
5	**GENERAL ASPECTS**		**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**
5,1	GENRAL SURFACES		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
5,2	POST CLOSURE MONITORING AND MAINTENANCE		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
5,3	SPECIALIST STUDIES		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
	SUB-TOTAL 1		**R 171 829,68**	**R 645 123,78**	**R 1 114 569,37**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**
	Weighted Preliminary and General	6%	R 10 309,78	R 38 707,43	R 66 874,16	R 75 062,60	R 75 062,60	R 75 062,60	R 75 062,60	R 75 062,60	R 75 062,60	R 75 062,60
	Weighted Contingencies	10%	R 17 182,97	R 64 512,38	R 111 456,94	R 125 104,34	R 125 104,34	R 125 104,34	R 125 104,34	R 125 104,34	R 125 104,34	R 125 104,34
	SUB-TOTAL 2 FOR P&G's AND CONTINGENCIES		**R 27 492,75**	**R 103 219,80**	**R 178 331,10**	**R 200 166,94**	**R 200 166,94**	**R 200 166,94**	**R 200 166,94**	**R 200 166,94**	**R 200 166,94**	**R 200 166,94**
	SUB-TOTAL 3		**R 199 322,43**	**R 748 343,58**	**R 1 292 900,47**	**R 1 451 210,32**	**R 1 451 210,32**	**R 1 451 210,32**	**R 1 451 210,32**	**R 1 451 210,32**	**R 1 451 210,32**	**R 1 451 210,32**
	VAT	15%	R 29 898,36	R 112 251,54	R 193 935,07	R 217 681,55	R 217 681,55	R 217 681,55	R 217 681,55	R 217 681,55	R 217 681,55	R 217 681,55
	GRAND-TOTAL		**R 229 220,79**	**R 860 595,12**	**R 1 486 835,54**	**R 1 668 891,87**	**R 1 668 891,87**	**R 1 668 891,87**	**R 1 668 891,87**	**R 1 668 891,87**	**R 1 668 891,87**	**R 1 668 891,87**

2. CLOSURE COMPONENTS

The following components were identified and form part of the calculation:

- Wet Feeder;
- Wet Feeder Conveyors;
- Transfer Tower;
- Bag House;
- Flash Dryer;
- Feed Distribution Tower;
- Filter Plant.

The above items are to be constructed within the current active footprint of the Smelter Complex at Impala in two phases. Refer to the following figure depicting the locality of the proposed new project in relation to the existing infrastructure:

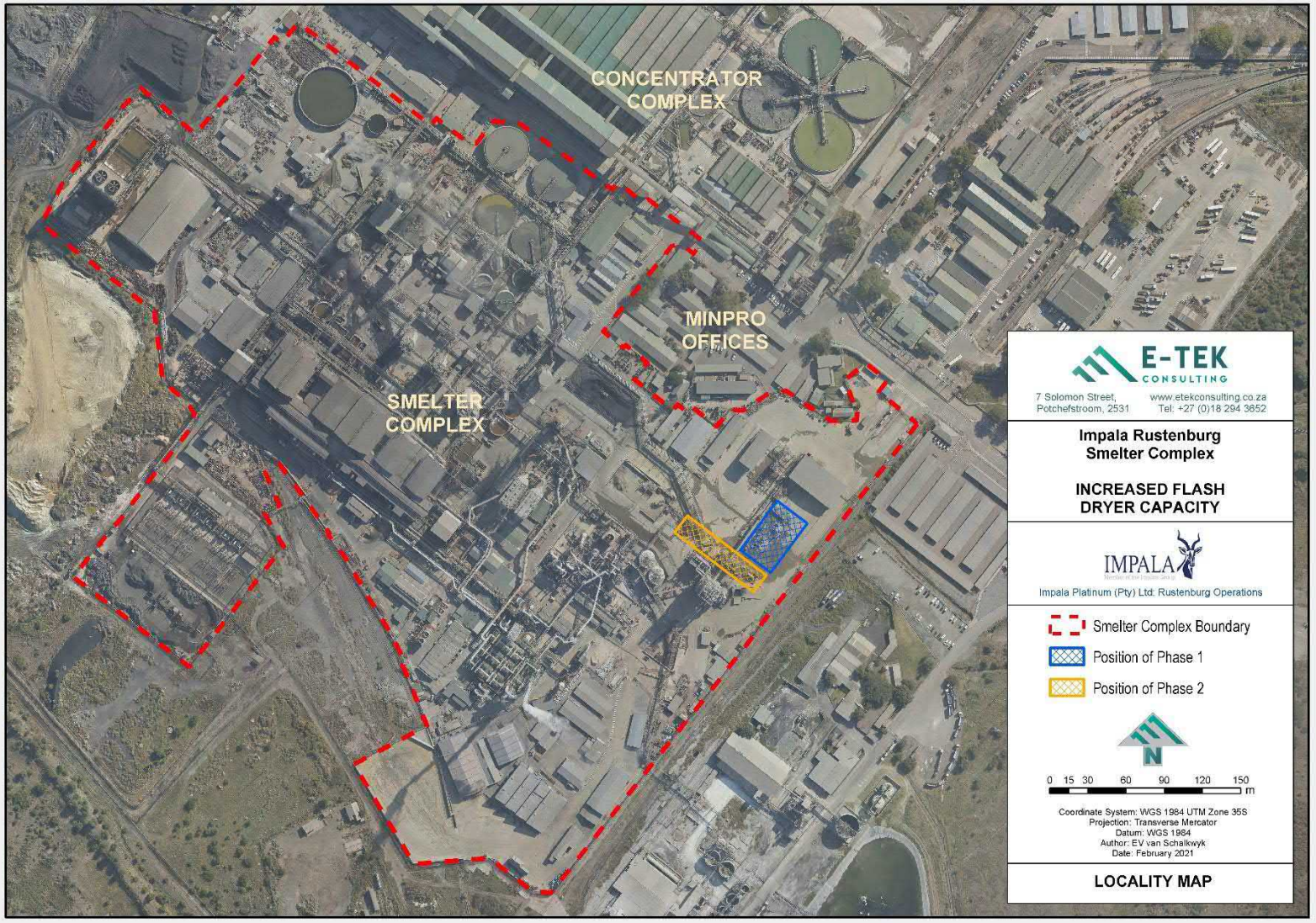


Figure 1: Locality of Proposed Project

3. CLOSURE COST ESTIMATION METHODOLOGY AND PROCEDURE

3.1. METHODOLOGY APPLIED TO LIABILITY MODEL

The following approach was applied to determine the financial provision:

- Financial models were developed to cater for the requirements of GN R1147;
- The costing models were developed to address all the identified closure components applicable to Impala;
- The costing models provide the following output:
    - Executive Summary (Summary of all closure components and associated costs where applicable);
    - Preliminary and General (P&G's): Allocation of P&G's for each component and provides weighted P&G's, as certain P&G's allowances, can vary per component);
    - Contingencies (Allocation of Contingencies for each component and provides weighted Contingencies, as certain Contingency allowances can vary per component);
    - Closure Components Summary (Provides a summary of all costs per closure component). The five main closure components have been identified as follows:
        - Infrastructural Aspects;
        - Mining Aspects;
        - Biophysical Closure Aspects;
        - Social Closure Aspects; and
        - General Aspects.
    - Closure Components (Breakdown of the detail facilities and aspects under each of the five main closure components); and
    - Rates Table (Unit rates for various actions required).
- The following information is captured for each closure component where applicable:
    - Reference Map (Reference map number representing the associated closure component);
    - Geographical (GEO) Reference (Reference number for each closure component as represented on the reference map);
    - Year Captured (When each component was captured into the model or updated);
    - Cost Component (Name of closure component captured);
    - Description (Breakdown of the properties per cost component);
    - Supporting Documentation (Hyperlink to associated supporting information such as drawings, designs or Bill of Quantities);
    - Liable (Yes or No, indication if the mine is liable for the component or not);
    - Rate Code (Assigned rate code from the rates table);
    - Quantity (Quantity per component captured);
    - Unit (Unit of measurement);

- Unit Rate (Rate assigned from the rate code aligned to the activity);
- Unit Total (Total amount for each component);
- Liable Value (Presentation of the total amount liable for per component); and
- Notes (Captures any assumptions or dedicated information).

3.2. ASSESSMENT METHODOLOGY

The approach followed with the determination of the closure costs could be summarized as follows:

- Review of available information, identification of infrastructure that would need to be decommissioned at closure;
- Gathering of relevant data which forms the basis of the calculation;
- All-newly proposed infrastructure was assigned with a reference number which can be referenced directly to the costing model;
- Reference map was created indicating the position of the proposed infrastructure in relation to the existing infrastructure;
- Closure criteria was developed and workshopped with Impala as part of the annual liability assessment;
- The closure forecast was based on the proposed project timeframe;
- Compilation of a Bill of Quantities capturing the quantities and actions relating to the closure of the different closure aspects (Microsoft excel format); and
- Unit rates from E-TEK's database were updated to be aligned with the current market-related rates acquired from local civil- and demolition contractors. (Note – these rates refer to closure conditions when the mine is no longer operational) Refer to Appendix A.

4. INFORMATION

The following information formed the basis of the calculation process:

- Closure Criteria (E-TEK Database);
- Latest lidar imagery of 2020 (E-TEK Database);
- General Arrangement Drawing (SLR); and
- Project Schedule (Impala).

5. ASSUMPTIONS

The following general and site-specific assumptions and qualifications for each of the closure components listed in section 2 and 3 for Impala is described below:

5.1. GENERAL ASSUMPTIONS

- The financial provision represents a 10 Year closure forecast;
- The currency of estimate: South African Rands (ZAR);
- Costing was based on today's value and no allowance was made for future value;

- As per regulatory requirements, no allowance was made to offset the value of scrap steel and or salvageable equipment to the liability;
- It was accepted that all information used to support the costing supplied by Impala and Specialists was accurate and true; this report only addresses the decommissioning and reclamation costs, equating to an outside (third party) contractor establishing on-site and conducting reclamation-related work. Other components such as staffing of the site after decommissioning, the infrastructure and support services (e.g. power supply, etc.) for this staff as well as workforce matters such as separation packages, retraining /re-skilling, etc. are outside the scope of this report;
- Based on the above, dedicated contractors would be commissioned to conduct the demolition and reclamation work on the site. This would inter alia require the establishment and overhead costs for the contractors and hence, the allowance for preliminary and general (P&Gs) in the cost estimate;
- Allowance has also been made for third-party contractors and consultants to conduct post-closure care and maintenance work as well as compliance monitoring;
- The financial provision calculated represents the financial requirements to implement the closure criteria identified and agreed upon as part of the closure plan; and
- Weighted percentages for P&Gs and Contingencies have been applied, Value-Added Tax (VAT) is also included:
    - P&G's – 6% Overall Allowance;
    - Contingencies – 10% Overall Allowance; and
    - VAT – 15% Overall Allowance

5.2. SITE-SPECIFIC ASSUMPTIONS

- The proposed project will be located within the current smelter area at Impala and will fall within the current disturbed footprint.
- The project will compile of two phases with the following timelines:
    - Phase 1: 20-month period with final completion in Y2023; and
    - Phase 2: 3-month period with final completion in Y2024.
- No allowance has been made for surface rehabilitation as the proposed footprint area falls within the current disturbed footprint;
- Steel and re-useable material, salvaged from the plant demolition and which has a salvage value, will be relocated to an authorized facility within a 30km radius to be sold or auctioned off. However, as per the regulatory requirements, the salvage value of steel and salvageable equipment have not been considered as part of the closure costing;
- It has been assumed all inert demolition waste will be disposed of into shaft portals before capping (pending formal authorization); and
- No beneficial use for infrastructure is currently allowed for an all infrastructure will be removed.

6. CLOSURE CRITERIA

All physical closure criteria were updated and refined during the annual updating process of the liability. Internal workshop sessions were held to update the closure criteria for all physical closure components based on updated information and inputs from operational personnel.

Please refer to the IA Summary Tab (Appendix A) for the closure criteria applicable to the closure components quantified.

7. CONCLUSION AND WAY FORWARD

7.1. CONCLUSION

The closure costs as reflected in this report have been based on information obtained from SLR, Impala, and quantities updated by E-TEK. In the event of the required information not being available, estimates were made based on experience and benchmarked against similar facilities elsewhere. Unit rates for the costing were obtained from E-TEK's existing database and/or through previous experience and consultation with demolition, earthworks contractors, and rehabilitation practitioners. Where required, these were adapted to reflect site-specific conditions.

Notwithstanding the above, if the closure measures are implemented as envisaged, the reflected costs provide a good indication of the costs for the closure situations as calculated and should provide a good basis for making the required financial provision. The closure costs calculated will only apply to closure situations and do not cater for operational closure and concurrent rehabilitation during the operational phase. Operational closure will require higher allowances for P&G's and Contingencies to appointed contractors.

7.2. WAY FORWARD

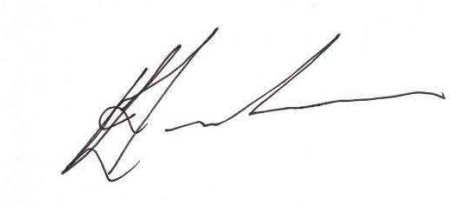
Quantities will be verified and updated on an annual basis as part of the annual closure liability update. All variances will be captured and updated accordingly.

Appendix A: Closure Liability Estimate

Appendix B: Reference Map

DOCUMENT SIGN-OFF

CONSULTANT SIGNATORIES:



Leon Koekemoer

Estimator

Jeanette Erasmus

Environmental Manager

CLIENT SIGNATORIES:

Name

Capacity

Name

Capacity

E-TEK DOCUMENT PRECINCTS

This Document provided by E-TEK Consulting (the consultant) is subject to the following:

i. This document has been prepared for the particular purpose outlined in the consultant's proposal and no responsibility is accepted for the use of this Document, in whole or in part, in other contexts or for any other purpose.

ii. The scope and the period of the consultant's Services are as described in the consultant's proposal and are subject to restrictions and limitations. The consultant did not perform a complete assessment of all possible conditions or circumstances that may exist at the site referenced in the Document. If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by the consultant regarding it.

iii. Conditions may exist which were undetectable given the limited nature of the enquiry the consultant was retained to undertake with respect to the site. Variations in conditions may occur between investigatory locations, and there may be special conditions pertaining to the site which have not been revealed by the investigation and which have not therefore been considered in the Document. Accordingly, additional studies and actions may be required.

iv. In addition, it is recognised that the passage of time affects the information and assessment provided in this Document. The consultants' opinion is based upon information that existed at the time of the production of the Document. It is understood that the Services provided allowed the consultant to form no more than an opinion of the actual conditions of the site at the time the site was visited and cannot be used to assess the effect of any subsequent changes in the quality of the site, or its surroundings, or any laws or regulations.

v. Any assessments made in this Document are based on the conditions indicated from published sources and the investigation described. No warranty is included; and either expresses or implies that the actual conditions will conform exactly to the assessments contained in this Document.

vi. Where data supplied by the client or other external sources, including previous site investigation data, have been used, it has been assumed that the information is correct unless otherwise stated. No responsibility is accepted by the consultants for incomplete or inaccurate data supplied by others.

vii. The Client acknowledges that the consultants may have retained sub-consultants affiliated with them to provide Services for the benefit of the consultants. The consultants will be fully responsible to the Client for the Services and work done by all its sub-consultants and subcontractors. The Client agrees that it will only assert claims against and seek to recover losses, damages or other liabilities from the consultants and not the consultants' affiliated companies. To the maximum extent allowed by law, the Client acknowledges and agrees it will not have any legal recourse, and waives any expense, loss, claim, demand, or cause of action, against the consultants' affiliated companies, and their employees, officers and directors.

viii. This Document is provided for sole use by the Client and is confidential to it and its professional advisers. No responsibility whatsoever for the contents of this Document will be accepted to any person other than the Client. Any use which a third party makes of this Document, or any reliance on or decisions to be made based on it, is the responsibility of such third parties. The consultants accept no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this Document.

Impala Platinum

Financial Provision: Flash Dryer Expansion

IMPALA PLATINUM FINANCIAL PROVISION SUMMARY												
ESTIMATED CLOSURE COST ESTIMATES (INCLUDES P&G'S, CONTINGENCIES AND VAT AND EXCLUDES ESCALATION)		Premature Closure	Closure Forecast	Closure Forecast	Closure Forecast	Closure Forecast	Closure Forecast	Closure Forecast	Closure Forecast	Closure Forecast	Closure Forecast
CLOSURE COMPONENTS		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	**INFRASTRUCTURAL ASPECTS**	**R 171 829,68**	**R 645 123,78**	**R 1 114 569,37**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**
1,1	PLANT AND RELATED STRUCTURES	R 88 420,41	R 509 579,82	R 956 670,86	R 1 027 583,66	R 1 027 583,66	R 1 027 583,66	R 1 027 583,66	R 1 027 583,66	R 1 027 583,66	R 1 027 583,66
1,2	SHAFTS, ADITS AND DECLINES	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
1,3	SUPPORTING INFRASTRUCTURE	R 27 700,31	R 58 019,06	R 58 019,06	R 88 337,81	R 88 337,81	R 88 337,81	R 88 337,81	R 88 337,81	R 88 337,81	R 88 337,81
1,4	UNDERGROUND INFRASTRUCTURE	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
1,5	SOCIAL INFRASTRUCTURE	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
1,6	OFF-SITE INFRASTRUCTURE	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
1,7	LINEAR ITEMS	R 27 862,38	R 27 862,38	R 27 862,38	R 58 046,63	R 58 046,63	R 58 046,63	R 58 046,63	R 58 046,63	R 58 046,63	R 58 046,63
1,8	WASTE DISPOSAL	R 27 846,57	R 49 662,51	R 72 017,06	R 77 075,28	R 77 075,28	R 77 075,28	R 77 075,28	R 77 075,28	R 77 075,28	R 77 075,28
2	**MINING ASPECTS**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**
2,1	OPENCAST / PIT AREAS	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
2,2	WASTE ROCK DUMPS - OVERBURDEN AND SPOILS	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
2,3	COARSE RESIDUE DEPOSITS - PROCESSING WASTE	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
2,4	FINE RESIDUE DEPOSITS - PROCESSING WASTE	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
3	**BIO-PHYSICAL CLOSURE ASPECTS**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**
3,1	WATER RESOURCES	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
3,2	SENSITIVE HABITATS AND BIODIVERSITY	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
3,3	LAND USE AND LAND CAPABILITY	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
3,4	SOIL	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
3,5	OTHER; AIR QUALITY AND TOPOGRAPHY	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
4	**SOCIAL CLOSURE ASPECTS**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**
4,1	EMPLOYEES	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
4,2	INTERESTED AND AFFECTED PARTIES	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
5	**GENERAL ASPECTS**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**	**R -**
5,1	GENRAL SURFACES	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
5,2	POST CLOSURE MONITORING AND MAINTENANCE	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
5,3	SPECIALIST STUDIES	R -	R -	R -	R -	R -	R -	R -	R -	R -	R -
	SUB-TOTAL 1	**R 171 829,68**	**R 645 123,78**	**R 1 114 569,37**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**
	Weighted Preliminary and General 6%	R 10 309,78	R 38 707,43	R 66 874,16	R 75 062,60	R 75 062,60	R 75 062,60	R 75 062,60	R 75 062,60	R 75 062,60	R 75 062,60
	Weighted Contingencies 10%	R 17 182,97	R 64 512,38	R 111 456,94	R 125 104,34	R 125 104,34	R 125 104,34	R 125 104,34	R 125 104,34	R 125 104,34	R 125 104,34
	SUB-TOTAL 2 FOR P&G's AND CONTINGENCIES	**R 27 492,75**	**R 103 219,80**	**R 178 331,10**	**R 200 166,94**	**R 200 166,94**	**R 200 166,94**	**R 200 166,94**	**R 200 166,94**	**R 200 166,94**	**R 200 166,94**
	SUB-TOTAL 3	**R 199 322,43**	**R 748 343,58**	**R 1 292 900,47**	**R 1 451 210,32**	**R 1 451 210,32**	**R 1 451 210,32**	**R 1 451 210,32**	**R 1 451 210,32**	**R 1 451 210,32**	**R 1 451 210,32**
	VAT 15%	R 29 898,36	R 112 251,54	R 193 935,07	R 217 681,55	R 217 681,55	R 217 681,55	R 217 681,55	R 217 681,55	R 217 681,55	R 217 681,55
	GRAND-TOTAL	**R 229 220,79**	**R 860 595,12**	**R 1 486 835,54**	**R 1 668 891,87**	**R 1 668 891,87**	**R 1 668 891,87**	**R 1 668 891,87**	**R 1 668 891,87**	**R 1 668 891,87**	**R 1 668 891,87**

Impala Platinum

Financial Provision: Flash Dryer Expansion

SUMMARY - INFRASTRUCTURAL ASPECTS																	
1	INFRASTRUCTURAL CLOSURE COMPONENTS & CRITERIA			Premature Closure	Closure Forecast	Closure Forecast	Closure Forecast	Closure Forecast	Closure Forecast	Closure Forecast	Closure Forecast	Closure Forecast	Closure Forecast				
ID	COMPONENT	CLOSURE CRITERIA		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030				
1,1	PLANT AND RELATED STRUCTURES	Removal of salvageable equipment (i.e. steel and re-useable material) All plants and related infrastructure will be dismantled and removed at closure Foundations and underground structures will be removed to 1m below ground level General surface rehabilitation of footprint areas (Refer to General Surfaces component) Allowance for hazardous waste (refer to Waste Disposal component) All linear items (i.e. pipelines, power lines and conveyers) will be removed (Refer to Linear items component)		R 88 420,41	R 509 579,82	R 956 670,86	R 1 027 583,66	R 1 027 583,66	R 1 027 583,66	R 1 027 583,66	R 1 027 583,66	R 1 027 583,66	R 1 027 583,66				
1,2	SHAFTS, ADITS AND DECLINES	Not Applicable		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -				
1,3	SUPPORTING INFRASTRUCTURE	Removal of salvageable equipment (i.e. steel and re-useable material) All infrastructure will be dismantled and removed at closure Foundations and underground structures will be removed to 1m below ground level General surface rehabilitation of footprint areas (Refer to General Surfaces component) Allowance for hazardous waste (refer to Waste Disposal component) All linear items (i.e. pipelines, power lines and conveyers) will be removed (Refer to Linear items component)		R 27 700,31	R 58 019,06	R 58 019,06	R 88 337,81	R 88 337,81	R 88 337,81	R 88 337,81	R 88 337,81	R 88 337,81	R 88 337,81				
1,4	UNDERGROUND INFRASTRUCTURE	Not Applicable		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -				
1,5	SOCIAL INFRASTRUCTURE	Not Applicable		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -				
1,6	OFF-SITE INFRASTRUCTURE	Not Applicable		R -	R -	R -	R -	R -	R -	R -	R -	R -	R -				
1,7	LINEAR ITEMS	All linear items such as pipelines, fences (allowance was made to remove all security fencing, however security fence around tailings facility to remain post closure), power lines, overland conveyors and railway lines will be removed No allowance made for tarred roads beyond the boundaries of the plant or shaft areas		R 27 862,38	R 27 862,38	R 27 862,38	R 58 046,63	R 58 046,63	R 58 046,63	R 58 046,63	R 58 046,63	R 58 046,63	R 58 046,63				
1,8	WASTE DISPOSAL	A 2.5% allowance of the total demolition costs for infrastructural aspects was made for sorting and screening of waste (including unforeseen disposal of hazardous waste) A 2.5% allowance of the total demolition costs were made for decontamination of plant equipment Inert waste will be disposed of into shafts before capping		R 27 846,57	R 49 662,51	R 72 017,06	R 77 075,28	R 77 075,28	R 77 075,28	R 77 075,28	R 77 075,28	R 77 075,28	R 77 075,28				
		SUB-TOTAL 1		**R 171 829,68**	**R 645 123,78**	**R 1 114 569,37**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**	**R 1 251 043,38**				
		Preliminary and General	6%	R 10 309,78	R 38 707,43	R 66 874,16	R 75 062,60	R 75 062,60	R 75 062,60	R 75 062,60	R 75 062,60	R 75 062,60	R 75 062,60				
		Contingencies	10%	R 17 182,97	R 64 512,38	R 111 456,94	R 125 104,34	R 125 104,34	R 125 104,34	R 125 104,34	R 125 104,34	R 125 104,34	R 125 104,34				
		SUB-TOTAL 2 (P&G's AND CONTINGENCIES)		**R 27 492,75**	**R 103 219,80**	**R 178 331,10**	**R 200 166,94**	**R 200 166,94**	**R 200 166,94**	**R 200 166,94**	**R 200 166,94**	**R 200 166,94**	**R 200 166,94**				
		GRAND-TOTAL		**R 199 322,43**	**R 748 343,58**	**R 1 292 900,47**	**R 1 451 210,32**	**R 1 451 210,32**	**R 1 451 210,32**	**R 1 451 210,32**	**R 1 451 210,32**	**R 1 451 210,32**	**R 1 451 210,32**				

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Premature Closure						2021	
1,1	PLANT AND RELATED STRUCTURES													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**					128,69					
2	RM	SM198	2021	Filter Plant (Mill)	Double storey or double volume building		No	3.2.2	64,00	m²	R 1 108,01	R 70 912,80	R -	Phase 2
3	RM	SM303	2021	Flash Dryer										Phase 1
4				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	56,14	m³	R 908,46	R 51 003,22	R 51 003,22	
5				Equipment	Riggers		No	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R -	
6				Structural Steelwork	Medium plant structures		No	2.3.2	180,00	m²	R 1 160,93	R 208 967,85	R -	
7				Penthouse on top of silo	Single storey building		No	3.2.1	95,00	m²	R 791,60	R 75 201,53	R -	
8				Sheeting	IBR / Corrugated Cladding		No	2,1	329,00	m²	R 36,38	R 11 969,02	R -	
9	RM	SM304	2021	Bag House										Phase 1
10				Equipment	Riggers		No	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R -	
11				Structural Steelwork	Medium plant structures		No	2.3.2	118,00	m²	R 1 160,93	R 136 990,04	R -	
12				Sheeting	IBR / Corrugated Cladding		No	2,1	710,16	m²	R 36,38	R 25 835,62	R -	
13				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	41,19	m³	R 908,46	R 37 417,20	R 37 417,20	
14														
					SUB-TOTAL 1								**R 88 420,41**	
					Preliminaries and General	6%							R 5 305,22	
					Contingency	10%							R 8 842,04	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 14 147,27**	
					GRAND-TOTAL								**R 102 567,68**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2022	
1,1	PLANT AND RELATED STRUCTURES													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**					128,69					
2	RM	SM198	2021	Filter Plant (Mill)	Double storey or double volume building		No	3.2.2	64,00	m²	R 1 108,01	R 70 912,80	R -	Phase 2
3	RM	SM303	2021	Flash Dryer										Phase 1
4				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	56,14	m³	R 908,46	R 51 003,22	R 51 003,22	
5				Equipment	Riggers		No	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R -	
6				Structural Steelwork	Medium plant structures		Yes	2.3.2	180,00	m²	R 1 160,93	R 208 967,85	R 208 967,85	
7				Penthouse on top of silo	Single storey building		Yes	3.2.1	95,00	m²	R 791,60	R 75 201,53	R 75 201,53	
8				Sheeting	IBR / Corrugated Cladding		No	2,1	329,00	m²	R 36,38	R 11 969,02	R -	
9	RM	SM304	2021	Bag House										Phase 1
10				Equipment	Riggers		No	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R -	
11				Structural Steelwork	Medium plant structures		Yes	2.3.2	118,00	m²	R 1 160,93	R 136 990,04	R 136 990,04	
12				Sheeting	IBR / Corrugated Cladding		No	2,1	710,16	m²	R 36,38	R 25 835,62	R -	
13				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	41,19	m³	R 908,46	R 37 417,20	R 37 417,20	
14														
					SUB-TOTAL 1								**R 509 579,82**	
					Preliminaries and General	6%							R 30 574,79	
					Contingency	10%							R 50 957,98	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 81 532,77**	
					GRAND-TOTAL								**R 591 112,59**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2023	
1,1	PLANT AND RELATED STRUCTURES													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**					128,69					
2	RM	SM198	2021	Filter Plant (Mill)	Double storey or double volume building		No	3.2.2	64,00	m²	R 1 108,01	R 70 912,80	R -	Phase 2
3	RM	SM303	2021	Flash Dryer										Phase 1
4				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	56,14	m³	R 908,46	R 51 003,22	R 51 003,22	
5				Equipment	Riggers		Yes	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R 204 643,20	
6				Structural Steelwork	Medium plant structures		Yes	2.3.2	180,00	m²	R 1 160,93	R 208 967,85	R 208 967,85	
7				Penthouse on top of silo	Single storey building		Yes	3.2.1	95,00	m²	R 791,60	R 75 201,53	R 75 201,53	
8				Sheeting	IBR / Corrugated Cladding		Yes	2,1	329,00	m²	R 36,38	R 11 969,02	R 11 969,02	
9	RM	SM304	2021	Bag House										Phase 1
10				Equipment	Riggers		Yes	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R 204 643,20	
11				Structural Steelwork	Medium plant structures		Yes	2.3.2	118,00	m²	R 1 160,93	R 136 990,04	R 136 990,04	
12				Sheeting	IBR / Corrugated Cladding		Yes	2,1	710,16	m²	R 36,38	R 25 835,62	R 25 835,62	
13				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	41,19	m³	R 908,46	R 37 417,20	R 37 417,20	
14														
					SUB-TOTAL 1								**R 956 670,86**	
					Preliminaries and General	6%							R 57 400,25	
					Contingency	10%							R 95 667,09	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 153 067,34**	
					GRAND-TOTAL								**R 1 109 738,20**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2024	
1,1	PLANT AND RELATED STRUCTURES													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**					128,69					
2	RM	SM198	2021	Filter Plant (Mill)	Double storey or double volume building		Yes	3.2.2	64,00	m²	R 1 108,01	R 70 912,80	R 70 912,80	Phase 2
3	RM	SM303	2021	Flash Dryer										Phase 1
4				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	56,14	m³	R 908,46	R 51 003,22	R 51 003,22	
5				Equipment	Riggers		Yes	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R 204 643,20	
6				Structural Steelwork	Medium plant structures		Yes	2.3.2	180,00	m²	R 1 160,93	R 208 967,85	R 208 967,85	
7				Penthouse on top of silo	Single storey building		Yes	3.2.1	95,00	m²	R 791,60	R 75 201,53	R 75 201,53	
8				Sheeting	IBR / Corrugated Cladding		Yes	2,1	329,00	m²	R 36,38	R 11 969,02	R 11 969,02	
9	RM	SM304	2021	Bag House										Phase 1
10				Equipment	Riggers		Yes	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R 204 643,20	
11				Structural Steelwork	Medium plant structures		Yes	2.3.2	118,00	m²	R 1 160,93	R 136 990,04	R 136 990,04	
12				Sheeting	IBR / Corrugated Cladding		Yes	2,1	710,16	m²	R 36,38	R 25 835,62	R 25 835,62	
13				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	41,19	m³	R 908,46	R 37 417,20	R 37 417,20	
14														
					SUB-TOTAL 1								**R 1 027 583,66**	
					Preliminaries and General	6%							R 61 655,02	
					Contingency	10%							R 102 758,37	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 164 413,39**	
					GRAND-TOTAL								**R 1 191 997,05**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2025	
1,1	PLANT AND RELATED STRUCTURES													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**					128,69					
2	RM	SM198	2021	Filter Plant (Mill)	Double storey or double volume building		Yes	3.2.2	64,00	m²	R 1 108,01	R 70 912,80	R 70 912,80	Phase 2
3	RM	SM303	2021	Flash Dryer										Phase 1
4				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	56,14	m³	R 908,46	R 51 003,22	R 51 003,22	
5				Equipment	Riggers		Yes	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R 204 643,20	
6				Structural Steelwork	Medium plant structures		Yes	2.3.2	180,00	m²	R 1 160,93	R 208 967,85	R 208 967,85	
7				Penthouse on top of silo	Single storey building		Yes	3.2.1	95,00	m²	R 791,60	R 75 201,53	R 75 201,53	
8				Sheeting	IBR / Corrugated Cladding		Yes	2,1	329,00	m²	R 36,38	R 11 969,02	R 11 969,02	
9	RM	SM304	2021	Bag House										Phase 1
10				Equipment	Riggers		Yes	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R 204 643,20	
11				Structural Steelwork	Medium plant structures		Yes	2.3.2	118,00	m²	R 1 160,93	R 136 990,04	R 136 990,04	
12				Sheeting	IBR / Corrugated Cladding		Yes	2,1	710,16	m²	R 36,38	R 25 835,62	R 25 835,62	
13				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	41,19	m³	R 908,46	R 37 417,20	R 37 417,20	
14														
					SUB-TOTAL 1								**R 1 027 583,66**	
					Preliminaries and General	6%							R 61 655,02	
					Contingency	10%							R 102 758,37	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 164 413,39**	
					GRAND-TOTAL								**R 1 191 997,05**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2026	
1,1	PLANT AND RELATED STRUCTURES													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**					128,69					
2	RM	SM198	2021	Filter Plant (Mill)	Double storey or double volume building		Yes	3.2.2	64,00	m²	R 1 108,01	R 70 912,80	R 70 912,80	Phase 2
3	RM	SM303	2021	Flash Dryer										Phase 1
4				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	56,14	m³	R 908,46	R 51 003,22	R 51 003,22	
5				Equipment	Riggers		Yes	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R 204 643,20	
6				Structural Steelwork	Medium plant structures		Yes	2.3.2	180,00	m²	R 1 160,93	R 208 967,85	R 208 967,85	
7				Penthouse on top of silo	Single storey building		Yes	3.2.1	95,00	m²	R 791,60	R 75 201,53	R 75 201,53	
8				Sheeting	IBR / Corrugated Cladding		Yes	2,1	329,00	m²	R 36,38	R 11 969,02	R 11 969,02	
9	RM	SM304	2021	Bag House										Phase 1
10				Equipment	Riggers		Yes	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R 204 643,20	
11				Structural Steelwork	Medium plant structures		Yes	2.3.2	118,00	m²	R 1 160,93	R 136 990,04	R 136 990,04	
12				Sheeting	IBR / Corrugated Cladding		Yes	2,1	710,16	m²	R 36,38	R 25 835,62	R 25 835,62	
13				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	41,19	m³	R 908,46	R 37 417,20	R 37 417,20	
14														
					SUB-TOTAL 1								**R 1 027 583,66**	
					Preliminaries and General	6%							R 61 655,02	
					Contingency	10%							R 102 758,37	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 164 413,39**	
					GRAND-TOTAL								**R 1 191 997,05**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2027	
1,1	PLANT AND RELATED STRUCTURES													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**					128,69					
2	RM	SM198	2021	Filter Plant (Mill)	Double storey or double volume building		Yes	3.2.2	64,00	m²	R 1 108,01	R 70 912,80	R 70 912,80	Phase 2
3	RM	SM303	2021	Flash Dryer										Phase 1
4				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	56,14	m³	R 908,46	R 51 003,22	R 51 003,22	
5				Equipment	Riggers		Yes	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R 204 643,20	
6				Structural Steelwork	Medium plant structures		Yes	2.3.2	180,00	m²	R 1 160,93	R 208 967,85	R 208 967,85	
7				Penthouse on top of silo	Single storey building		Yes	3.2.1	95,00	m²	R 791,60	R 75 201,53	R 75 201,53	
8				Sheeting	IBR / Corrugated Cladding		Yes	2,1	329,00	m²	R 36,38	R 11 969,02	R 11 969,02	
9	RM	SM304	2021	Bag House										Phase 1
10				Equipment	Riggers		Yes	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R 204 643,20	
11				Structural Steelwork	Medium plant structures		Yes	2.3.2	118,00	m²	R 1 160,93	R 136 990,04	R 136 990,04	
12				Sheeting	IBR / Corrugated Cladding		Yes	2,1	710,16	m²	R 36,38	R 25 835,62	R 25 835,62	
13				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	41,19	m³	R 908,46	R 37 417,20	R 37 417,20	
14														
					SUB-TOTAL 1								**R 1 027 583,66**	
					Preliminaries and General	6%							R 61 655,02	
					Contingency	10%							R 102 758,37	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 164 413,39**	
					GRAND-TOTAL								**R 1 191 997,05**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2028	
1,1	PLANT AND RELATED STRUCTURES													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**					128,69					
2	RM	SM198	2021	Filter Plant (Mill)	Double storey or double volume building		Yes	3.2.2	64,00	m²	R 1 108,01	R 70 912,80	R 70 912,80	Phase 2
3	RM	SM303	2021	Flash Dryer										Phase 1
4				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	56,14	m³	R 908,46	R 51 003,22	R 51 003,22	
5				Equipment	Riggers		Yes	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R 204 643,20	
6				Structural Steelwork	Medium plant structures		Yes	2.3.2	180,00	m²	R 1 160,93	R 208 967,85	R 208 967,85	
7				Penthouse on top of silo	Single storey building		Yes	3.2.1	95,00	m²	R 791,60	R 75 201,53	R 75 201,53	
8				Sheeting	IBR / Corrugated Cladding		Yes	2,1	329,00	m²	R 36,38	R 11 969,02	R 11 969,02	
9	RM	SM304	2021	Bag House										Phase 1
10				Equipment	Riggers		Yes	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R 204 643,20	
11				Structural Steelwork	Medium plant structures		Yes	2.3.2	118,00	m²	R 1 160,93	R 136 990,04	R 136 990,04	
12				Sheeting	IBR / Corrugated Cladding		Yes	2,1	710,16	m²	R 36,38	R 25 835,62	R 25 835,62	
13				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	41,19	m³	R 908,46	R 37 417,20	R 37 417,20	
14														
						SUB-TOTAL 1							**R 1 027 583,66**	
						Preliminaries and General	6%						R 61 655,02	
						Contingency	10%						R 102 758,37	
						SUB-TOTAL 2 (P&G's AND CONTINGENCIES)							**R 164 413,39**	
						GRAND-TOTAL							**R 1 191 997,05**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2029	
1,1	PLANT AND RELATED STRUCTURES													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**					128,69					
2	RM	SM198	2021	Filter Plant (Mill)	Double storey or double volume building		Yes	3.2.2	64,00	m²	R 1 108,01	R 70 912,80	R 70 912,80	Phase 2
3	RM	SM303	2021	Flash Dryer										Phase 1
4				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	56,14	m³	R 908,46	R 51 003,22	R 51 003,22	
5				Equipment	Riggers		Yes	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R 204 643,20	
6				Structural Steelwork	Medium plant structures		Yes	2.3.2	180,00	m²	R 1 160,93	R 208 967,85	R 208 967,85	
7				Penthouse on top of silo	Single storey building		Yes	3.2.1	95,00	m²	R 791,60	R 75 201,53	R 75 201,53	
8				Sheeting	IBR / Corrugated Cladding		Yes	2,1	329,00	m²	R 36,38	R 11 969,02	R 11 969,02	
9	RM	SM304	2021	Bag House										Phase 1
10				Equipment	Riggers		Yes	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R 204 643,20	
11				Structural Steelwork	Medium plant structures		Yes	2.3.2	118,00	m²	R 1 160,93	R 136 990,04	R 136 990,04	
12				Sheeting	IBR / Corrugated Cladding		Yes	2,1	710,16	m²	R 36,38	R 25 835,62	R 25 835,62	
13				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	41,19	m³	R 908,46	R 37 417,20	R 37 417,20	
14														
						SUB-TOTAL 1							**R 1 027 583,66**	
						Preliminaries and General	6%						R 61 655,02	
						Contingency	10%						R 102 758,37	
						SUB-TOTAL 2 (P&G's AND CONTINGENCIES)							**R 164 413,39**	
						GRAND-TOTAL							**R 1 191 997,05**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2030	
1,1	PLANT AND RELATED STRUCTURES													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**					128,69					
2	RM	SM198	2021	Filter Plant (Mill)	Double storey or double volume building		Yes	3.2.2	64,00	m²	R 1 108,01	R 70 912,80	R 70 912,80	Phase 2
3	RM	SM303	2021	Flash Dryer										Phase 1
4				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	56,14	m³	R 908,46	R 51 003,22	R 51 003,22	
5				Equipment	Riggers		Yes	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R 204 643,20	
6				Structural Steelwork	Medium plant structures		Yes	2.3.2	180,00	m²	R 1 160,93	R 208 967,85	R 208 967,85	
7				Penthouse on top of silo	Single storey building		Yes	3.2.1	95,00	m²	R 791,60	R 75 201,53	R 75 201,53	
8				Sheeting	IBR / Corrugated Cladding		Yes	2,1	329,00	m²	R 36,38	R 11 969,02	R 11 969,02	
9	RM	SM304	2021	Bag House										Phase 1
10				Equipment	Riggers		Yes	1,5	60,00	p/ton	R 3 410,72	R 204 643,20	R 204 643,20	
11				Structural Steelwork	Medium plant structures		Yes	2.3.2	118,00	m²	R 1 160,93	R 136 990,04	R 136 990,04	
12				Sheeting	IBR / Corrugated Cladding		Yes	2,1	710,16	m²	R 36,38	R 25 835,62	R 25 835,62	
13				Structural Concrete	Medium concrete, thickness between 250 and 750mm		Yes	4,2	41,19	m³	R 908,46	R 37 417,20	R 37 417,20	
14														
						SUB-TOTAL 1							**R 1 027 583,66**	
						Preliminaries and General	6%						R 61 655,02	
						Contingency	10%						R 102 758,37	
						SUB-TOTAL 2 (P&G's AND CONTINGENCIES)							**R 164 413,39**	
						GRAND-TOTAL							**R 1 191 997,05**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS					
1,1	PLANT AND RELATED STRUCTURES				
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description
1				**Smelter**	
2	RM	SM198	2021	Filter Plant (Mill)	Double storey or double volume building
3	RM	SM303	2021	Flash Dryer	
4				Structural Concrete	Medium concrete, thickness between 250 and 750mm
5				Equipment	Riggers
6				Structural Steelwork	Medium plant structures
7				Penthouse on top of silo	Single storey building
8				Sheeting	IBR / Corrugated Cladding
9	RM	SM304	2021	Bag House	
10				Equipment	Riggers
11				Structural Steelwork	Medium plant structures
12				Sheeting	IBR / Corrugated Cladding
13				Structural Concrete	Medium concrete, thickness between 250 and 750mm
14					
				SUB-TOTAL 1	
				Preliminaries and General	
				Contingency	
				SUB-TOTAL 2 (P&G's AND CONTINGENCIES)	
				GRAND-TOTAL	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast					
1,3	SUPPORTING INFRASTRUCTURE											
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total
1				**Smelter**					79,75			
2	RM	SM195	2021	Feed Distribution Tower (Dryer No.7)								
3				Structural Steelwork	Small plant buildings (<5000m³)		Yes	2.3.5	125,00	m³	R 242,55	R 30 318,75
4	RM	SM305	2021	Wet Feeder	Double storey or double volume building		Yes	3.2.2	25,00	m²	R 1 108,01	R 27 700,31
5	RM	SM307	2021	Transfer Tower	Small plant buildings (<5000m³)		Yes	2.3.5	125,00	m³	R 242,55	R 30 318,75
6												
					SUB-TOTAL 1							
					Preliminaries and General	6%						
					Contingency	10%						
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)							
					GRAND-TOTAL							

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS						2026	
1,3	SUPPORTING INFRASTRUCTURE						
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description	LIABLE VALUE	Notes
1				**Smelter**			
2	RM	SM195	2021	Feed Distribution Tower (Dryer No.7)			Phase 2
3				Structural Steelwork	Small plant buildings (<5000m³)	R 30 318,75	
4	RM	SM305	2021	Wet Feeder	Double storey or double volume building	R 27 700,31	Phase 1
5	RM	SM307	2021	Transfer Tower	Small plant buildings (<5000m³)	R 30 318,75	Phase 1
6							
					SUB-TOTAL 1	**R 88 337,81**	
					Preliminaries and General	R 5 300,27	
					Contingency	R 8 833,78	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)	**R 14 134,05**	
					GRAND-TOTAL	**R 102 471,86**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast					
1,3	SUPPORTING INFRASTRUCTURE											
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total
1				**Smelter**					79,75			
2	RM	SM195	2021	Feed Distribution Tower (Dryer No.7)								
3				Structural Steelwork	Small plant buildings (<5000m³)		Yes	2.3.5	125,00	m³	R 242,55	R 30 318,75
4	RM	SM305	2021	Wet Feeder	Double storey or double volume building		Yes	3.2.2	25,00	m²	R 1 108,01	R 27 700,31
5	RM	SM307	2021	Transfer Tower	Small plant buildings (<5000m³)		Yes	2.3.5	125,00	m³	R 242,55	R 30 318,75
6												
					SUB-TOTAL 1							
					Preliminaries and General	6%						
					Contingency	10%						
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)							
					GRAND-TOTAL							

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS						2027	
1,3	SUPPORTING INFRASTRUCTURE						
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description	LIABLE VALUE	Notes
1				**Smelter**			
2	RM	SM195	2021	Feed Distribution Tower (Dryer No.7)			Phase 2
3				Structural Steelwork	Small plant buildings (<5000m³)	R 30 318,75	
4	RM	SM305	2021	Wet Feeder	Double storey or double volume building	R 27 700,31	Phase 1
5	RM	SM307	2021	Transfer Tower	Small plant buildings (<5000m³)	R 30 318,75	Phase 1
6							
					SUB-TOTAL 1	**R 88 337,81**	
					Preliminaries and General	R 5 300,27	
					Contingency	R 8 833,78	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)	**R 14 134,05**	
					GRAND-TOTAL	**R 102 471,86**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS						Closure Forecast					
1,3	SUPPORTING INFRASTRUCTURE										
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description	LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total
1				**Smelter**				79,75			
2	RM	SM195	2021	Feed Distribution Tower (Dryer No.7)							
3				Structural Steelwork	Small plant buildings (<5000m³)	Yes	2.3.5	125,00	m³	R 242,55	R 30 318,75
4	RM	SM305	2021	Wet Feeder	Double storey or double volume building	Yes	3.2.2	25,00	m²	R 1 108,01	R 27 700,31
5	RM	SM307	2021	Transfer Tower	Small plant buildings (<5000m³)	Yes	2.3.5	125,00	m³	R 242,55	R 30 318,75
6											
					SUB-TOTAL 1						
					Preliminaries and General						
					Contingency						
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)						
					GRAND-TOTAL						

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS						2028	
1,3	SUPPORTING INFRASTRUCTURE						
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description	LIABLE VALUE	Notes
1				**Smelter**			
2	RM	SM195	2021	Feed Distribution Tower (Dryer No.7)			Phase 2
3				Structural Steelwork	Small plant buildings (<5000m³)	R 30 318,75	
4	RM	SM305	2021	Wet Feeder	Double storey or double volume building	R 27 700,31	Phase 1
5	RM	SM307	2021	Transfer Tower	Small plant buildings (<5000m³)	R 30 318,75	Phase 1
6							
					SUB-TOTAL 1	**R 88 337,81**	
					Preliminaries and General	R 5 300,27	
					Contingency	R 8 833,78	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)	**R 14 134,05**	
					GRAND-TOTAL	**R 102 471,86**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast					
1,3	SUPPORTING INFRASTRUCTURE											
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total
1				**Smelter**					79,75			
2	RM	SM195	2021	Feed Distribution Tower (Dryer No.7)								
3				Structural Steelwork	Small plant buildings (<5000m³)		Yes	2.3.5	125,00	m³	R 242,55	R 30 318,75
4	RM	SM305	2021	Wet Feeder	Double storey or double volume building		Yes	3.2.2	25,00	m²	R 1 108,01	R 27 700,31
5	RM	SM307	2021	Transfer Tower	Small plant buildings (<5000m³)		Yes	2.3.5	125,00	m³	R 242,55	R 30 318,75
6												
					SUB-TOTAL 1							
					Preliminaries and General	6%						
					Contingency	10%						
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)							
					GRAND-TOTAL							

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS						2029	
1,3	SUPPORTING INFRASTRUCTURE						
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description	LIABLE VALUE	Notes
1				**Smelter**			
2	RM	SM195	2021	Feed Distribution Tower (Dryer No.7)			Phase 2
3				Structural Steelwork	Small plant buildings (<5000m³)	R 30 318,75	
4	RM	SM305	2021	Wet Feeder	Double storey or double volume building	R 27 700,31	Phase 1
5	RM	SM307	2021	Transfer Tower	Small plant buildings (<5000m³)	R 30 318,75	Phase 1
6							
					SUB-TOTAL 1	**R 88 337,81**	
					Preliminaries and General	R 5 300,27	
					Contingency	R 8 833,78	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)	**R 14 134,05**	
					GRAND-TOTAL	**R 102 471,86**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast					
1,3	SUPPORTING INFRASTRUCTURE											
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total
1				**Smelter**					79,75			
2	RM	SM195	2021	Feed Distribution Tower (Dryer No.7)								
3				Structural Steelwork	Small plant buildings (<5000m³)		Yes	2.3.5	125,00	m³	R 242,55	R 30 318,75
4	RM	SM305	2021	Wet Feeder	Double storey or double volume building		Yes	3.2.2	25,00	m²	R 1 108,01	R 27 700,31
5	RM	SM307	2021	Transfer Tower	Small plant buildings (<5000m³)		Yes	2.3.5	125,00	m³	R 242,55	R 30 318,75
6												
					SUB-TOTAL 1							
					Preliminaries and General	6%						
					Contingency	10%						
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)							
					GRAND-TOTAL							

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS						2030	
1,3	SUPPORTING INFRASTRUCTURE						
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description	LIABLE VALUE	Notes
1				**Smelter**			
2	RM	SM195	2021	Feed Distribution Tower (Dryer No.7)			Phase 2
3				Structural Steelwork	Small plant buildings (<5000m³)	R 30 318,75	
4	RM	SM305	2021	Wet Feeder	Double storey or double volume building	R 27 700,31	Phase 1
5	RM	SM307	2021	Transfer Tower	Small plant buildings (<5000m³)	R 30 318,75	Phase 1
6							
					SUB-TOTAL 1	**R 88 337,81**	
					Preliminaries and General	R 5 300,27	
					Contingency	R 8 833,78	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)	**R 14 134,05**	
					GRAND-TOTAL	**R 102 471,86**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Premature Closure					
1,3	SUPPORTING INFRASTRUCTURE											
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total
1				**Smelter**					79,75			
2	RM	SM195	2021	Feed Distribution Tower (Dryer No.7)								
3				Structural Steelwork	Small plant buildings (<5000m³)		No	2.3.5	125,00	m³	R 242,55	R 30 318,75
4	RM	SM305	2021	Wet Feeder	Double storey or double volume building		Yes	3.2.2	25,00	m²	R 1 108,01	R 27 700,31
5	RM	SM307	2021	Transfer Tower	Small plant buildings (<5000m³)		No	2.3.5	125,00	m³	R 242,55	R 30 318,75
6												
					SUB-TOTAL 1							
					Preliminaries and General	6%						
					Contingency	10%						
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)							
					GRAND-TOTAL							

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS						2021	
1,3	SUPPORTING INFRASTRUCTURE						
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description	LIABLE VALUE	Notes
1				**Smelter**			
2	RM	SM195	2021	Feed Distribution Tower (Dryer No.7)			Phase 2
3				Structural Steelwork	Small plant buildings (<5000m³)	R -	
4	RM	SM305	2021	Wet Feeder	Double storey or double volume building	R 27 700,31	Phase 1
5	RM	SM307	2021	Transfer Tower	Small plant buildings (<5000m³)	R -	Phase 1
6							
					SUB-TOTAL 1	**R 27 700,31**	
					Preliminaries and General	R 1 662,02	
					Contingency	R 2 770,03	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)	**R 4 432,05**	
					GRAND-TOTAL	**R 32 132,36**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast					
1,3	SUPPORTING INFRASTRUCTURE											
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total
1				**Smelter**					79,75			
2	RM	SM195	2021	Feed Distribution Tower (Dryer No.7)								
3				Structural Steelwork	Small plant buildings (<5000m³)		No	2.3.5	125,00	m³	R 242,55	R 30 318,75
4	RM	SM305	2021	Wet Feeder	Double storey or double volume building		Yes	3.2.2	25,00	m²	R 1 108,01	R 27 700,31
5	RM	SM307	2021	Transfer Tower	Small plant buildings (<5000m³)		Yes	2.3.5	125,00	m³	R 242,55	R 30 318,75
6												
					SUB-TOTAL 1							
					Preliminaries and General	6%						
					Contingency	10%						
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)							
					GRAND-TOTAL							

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS						2022	
1,3	SUPPORTING INFRASTRUCTURE						
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description	LIABLE VALUE	Notes
1				**Smelter**			
2	RM	SM195	2021	Feed Distribution Tower (Dryer No.7)			Phase 2
3				Structural Steelwork	Small plant buildings (<5000m³)	R -	
4	RM	SM305	2021	Wet Feeder	Double storey or double volume building	R 27 700,31	Phase 1
5	RM	SM307	2021	Transfer Tower	Small plant buildings (<5000m³)	R 30 318,75	Phase 1
6							
					SUB-TOTAL 1	**R 58 019,06**	
					Preliminaries and General	R 3 481,14	
					Contingency	R 5 801,91	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)	**R 9 283,05**	
					GRAND-TOTAL	**R 67 302,11**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast					
1,3	SUPPORTING INFRASTRUCTURE											
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total
1				**Smelter**					79,75			
2	RM	SM195	2021	Feed Distribution Tower (Dryer No.7)								
3				Structural Steelwork	Small plant buildings (<5000m³)		No	2.3.5	125,00	m³	R 242,55	R 30 318,75
4	RM	SM305	2021	Wet Feeder	Double storey or double volume building		Yes	3.2.2	25,00	m²	R 1 108,01	R 27 700,31
5	RM	SM307	2021	Transfer Tower	Small plant buildings (<5000m³)		Yes	2.3.5	125,00	m³	R 242,55	R 30 318,75
6												
					SUB-TOTAL 1							
					Preliminaries and General	6%						
					Contingency	10%						
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)							
					GRAND-TOTAL							

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS						2023	
1,3	SUPPORTING INFRASTRUCTURE						
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description	LIABLE VALUE	Notes
1				**Smelter**			
2	RM	SM195	2021	Feed Distribution Tower (Dryer No.7)			Phase 2
3				Structural Steelwork	Small plant buildings (<5000m³)	R -	
4	RM	SM305	2021	Wet Feeder	Double storey or double volume building	R 27 700,31	Phase 1
5	RM	SM307	2021	Transfer Tower	Small plant buildings (<5000m³)	R 30 318,75	Phase 1
6							
					SUB-TOTAL 1	**R 58 019,06**	
					Preliminaries and General	R 3 481,14	
					Contingency	R 5 801,91	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)	**R 9 283,05**	
					GRAND-TOTAL	**R 67 302,11**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS															
1,7	LINEAR ITEMS						Premature Closure						2021	
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**										
2	RM	SM301	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		No	5.1.4	29,00	m	R 773,96	R 22 444,70	R -	Phase 2
3	RM	SM302	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		No	5.1.4	10,00	m	R 773,96	R 7 739,55	R -	Phase 2
4	RM	SM306		Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	22,00	m	R 773,96	R 17 027,01	R 17 027,01	Phase 1
5	RM	SM308	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	14,00	m	R 773,96	R 10 835,37	R 10 835,37	Phase 1
6														
					SUB-TOTAL 1								**R 27 862,38**	
					Preliminaries and General	6%							R 1 671,74	
					Contingency	10%							R 2 786,24	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 4 457,98**	
					GRAND-TOTAL								**R 32 320,36**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2022	
1,7	LINEAR ITEMS													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**										
2	RM	SM301	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		No	5.1.4	29,00	m	R 773,96	R 22 444,70	R -	Phase 2
3	RM	SM302	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		No	5.1.4	10,00	m	R 773,96	R 7 739,55	R -	Phase 2
4	RM	SM306		Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	22,00	m	R 773,96	R 17 027,01	R 17 027,01	Phase 1
5	RM	SM308	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	14,00	m	R 773,96	R 10 835,37	R 10 835,37	Phase 1
6														
					SUB-TOTAL 1								**R 27 862,38**	
					Preliminaries and General	6%							R 1 671,74	
					Contingency	10%							R 2 786,24	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 4 457,98**	
					GRAND-TOTAL								**R 32 320,36**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2023	
1,7	LINEAR ITEMS													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**										
2	RM	SM301	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		No	5.1.4	29,00	m	R 773,96	R 22 444,70	R -	Phase 2
3	RM	SM302	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		No	5.1.4	10,00	m	R 773,96	R 7 739,55	R -	Phase 2
4	RM	SM306		Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	22,00	m	R 773,96	R 17 027,01	R 17 027,01	Phase 1
5	RM	SM308	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	14,00	m	R 773,96	R 10 835,37	R 10 835,37	Phase 1
6														
					SUB-TOTAL 1								**R 27 862,38**	
					Preliminaries and General	6%							R 1 671,74	
					Contingency	10%							R 2 786,24	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 4 457,98**	
					GRAND-TOTAL								**R 32 320,36**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS																
1,7	LINEAR ITEMS						Closure Forecast						2024	
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**										
2	RM	SM301	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	29,00	m	R 773,96	R 22 444,70	R 22 444,70	Phase 2
3	RM	SM302	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	10,00	m	R 773,96	R 7 739,55	R 7 739,55	Phase 2
4	RM	SM306		Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	22,00	m	R 773,96	R 17 027,01	R 17 027,01	Phase 1
5	RM	SM308	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	14,00	m	R 773,96	R 10 835,37	R 10 835,37	Phase 1
6														
					SUB-TOTAL 1								**R 58 046,63**	
					Preliminaries and General	6%							R 3 482,80	
					Contingency	10%							R 5 804,66	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 9 287,46**	
					GRAND-TOTAL								**R 67 334,09**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS																
1,7	LINEAR ITEMS						Closure Forecast						2025	
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**										
2	RM	SM301	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	29,00	m	R 773,96	R 22 444,70	R 22 444,70	Phase 2
3	RM	SM302	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	10,00	m	R 773,96	R 7 739,55	R 7 739,55	Phase 2
4	RM	SM306		Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	22,00	m	R 773,96	R 17 027,01	R 17 027,01	Phase 1
5	RM	SM308	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	14,00	m	R 773,96	R 10 835,37	R 10 835,37	Phase 1
6														
					SUB-TOTAL 1								**R 58 046,63**	
					Preliminaries and General	6%							R 3 482,80	
					Contingency	10%							R 5 804,66	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 9 287,46**	
					GRAND-TOTAL								**R 67 334,09**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS																
1,7	LINEAR ITEMS						Closure Forecast						2026			
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE		Notes	
1				**Smelter**												
2	RM	SM301	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	29,00	m	R 773,96	R 22 444,70	R	22 444,70	Phase 2	
3	RM	SM302	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	10,00	m	R 773,96	R 7 739,55	R	7 739,55	Phase 2	
4	RM	SM306		Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	22,00	m	R 773,96	R 17 027,01	R	17 027,01	Phase 1	
5	RM	SM308	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	14,00	m	R 773,96	R 10 835,37	R	10 835,37	Phase 1	
6																
					SUB-TOTAL 1								**R**	**58 046,63**		
					Preliminaries and General	6%							R	3 482,80		
					Contingency	10%							R	5 804,66		
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R**	**9 287,46**		
					GRAND-TOTAL								**R**	**67 334,09**		

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2027	
1,7	LINEAR ITEMS													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**										
2	RM	SM301	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	29,00	m	R 773,96	R 22 444,70	R 22 444,70	Phase 2
3	RM	SM302	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	10,00	m	R 773,96	R 7 739,55	R 7 739,55	Phase 2
4	RM	SM306		Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	22,00	m	R 773,96	R 17 027,01	R 17 027,01	Phase 1
5	RM	SM308	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	14,00	m	R 773,96	R 10 835,37	R 10 835,37	Phase 1
6														
					SUB-TOTAL 1								**R 58 046,63**	
					Preliminaries and General	6%							R 3 482,80	
					Contingency	10%							R 5 804,66	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 9 287,46**	
					GRAND-TOTAL								**R 67 334,09**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2028	
1,7	LINEAR ITEMS													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**										
2	RM	SM301	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	29,00	m	R 773,96	R 22 444,70	R 22 444,70	Phase 2
3	RM	SM302	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	10,00	m	R 773,96	R 7 739,55	R 7 739,55	Phase 2
4	RM	SM306		Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	22,00	m	R 773,96	R 17 027,01	R 17 027,01	Phase 1
5	RM	SM308	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	14,00	m	R 773,96	R 10 835,37	R 10 835,37	Phase 1
6														
					SUB-TOTAL 1								**R 58 046,63**	
					Preliminaries and General	6%							R 3 482,80	
					Contingency	10%							R 5 804,66	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 9 287,46**	
					GRAND-TOTAL								**R 67 334,09**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS															
1,7	LINEAR ITEMS						Closure Forecast						2029	
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**										
2	RM	SM301	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	29,00	m	R 773,96	R 22 444,70	R 22 444,70	Phase 2
3	RM	SM302	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	10,00	m	R 773,96	R 7 739,55	R 7 739,55	Phase 2
4	RM	SM306		Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	22,00	m	R 773,96	R 17 027,01	R 17 027,01	Phase 1
5	RM	SM308	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	14,00	m	R 773,96	R 10 835,37	R 10 835,37	Phase 1
6														
					SUB-TOTAL 1								**R 58 046,63**	
					Preliminaries and General	6%							R 3 482,80	
					Contingency	10%							R 5 804,66	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 9 287,46**	
					GRAND-TOTAL								**R 67 334,09**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS																
1,7	LINEAR ITEMS						Closure Forecast						2030			
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE			Notes
1				**Smelter**												
2	RM	SM301	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	29,00	m	R 773,96	R 22 444,70	R	22 444,70		Phase 2
3	RM	SM302	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	10,00	m	R 773,96	R 7 739,55	R	7 739,55		Phase 2
4	RM	SM306		Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	22,00	m	R 773,96	R 17 027,01	R	17 027,01		Phase 1
5	RM	SM308	2021	Wet Feed Conveyor	Suspended conveyor - light to medium		Yes	5.1.4	14,00	m	R 773,96	R 10 835,37	R	10 835,37		Phase 1
6																
					SUB-TOTAL 1								**R**	**58 046,63**		
					Preliminaries and General	6%							R	3 482,80		
					Contingency	10%							R	5 804,66		
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R**	**9 287,46**		
					GRAND-TOTAL								**R**	**67 334,09**		

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS					
1,7	**LINEAR ITEMS**				
Line No	Reference Map	GEO Reference	Year Captured	**COST COMPONENT**	Description
1				**Smelter**	
2	RM	SM301	2021	Wet Feed Conveyor	Suspended conveyor - light to medium
3	RM	SM302	2021	Wet Feed Conveyor	Suspended conveyor - light to medium
4	RM	SM306		Wet Feed Conveyor	Suspended conveyor - light to medium
5	RM	SM308	2021	Wet Feed Conveyor	Suspended conveyor - light to medium
6					
				SUB-TOTAL 1	
				Preliminaries and General	
				Contingency	
				SUB-TOTAL 2 (P&G's AND CONTINGENCIES)	
				GRAND-TOTAL	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Premature Closure						2021	
1,8	WASTE DISPOSAL													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**										
2				Waste Management	Sorting and screening of waste		Yes	6,1	143983,10	%	2,50%	R 3 599,58	R 3 599,58	2.5% of total demolition cost
3				Decontamination of equipment	Decontamination of equipment - large projects		Yes	6.3.2	88420,41	%	2,50%	R 2 210,51	R 2 210,51	2,5% Allowance
4				Disposal of demolition waste	Haul 14km to facility		Yes	6.5.8	208,44	m³	R 105,72	R 22 036,49	R 22 036,49	
5														
					SUB-TOTAL 1								**R 27 846,57**	
					Preliminaries and General	6%							R 1 670,79	
					Contingency	10%							R 2 784,66	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 4 455,45**	
					GRAND-TOTAL								**R 32 302,02**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS															
1,8	WASTE DISPOSAL						Closure Forecast						2022	
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**										
2				Waste Management	Sorting and screening of waste		Yes	6,1	595461,26	%	2,50%	R 14 886,53	R 14 886,53	2.5% of total demolition cost
3				Decontamination of equipment	Decontamination of equipment - large projects		Yes	6.3.2	509579,82	%	2,50%	R 12 739,50	R 12 739,50	2,5% Allowance
4				Disposal of demolition waste	Haul 14km to facility		Yes	6.5.8	208,44	m³	R 105,72	R 22 036,49	R 22 036,49	
5														
					SUB-TOTAL 1								**R 49 662,51**	
					Preliminaries and General	6%							R 2 979,75	
					Contingency	10%							R 4 966,25	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 7 946,00**	
					GRAND-TOTAL								**R 57 608,51**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2023	
1,8	WASTE DISPOSAL													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**										
2				Waste Management	Sorting and screening of waste		Yes	6,1	1042552,31	%	2,50%	R 26 063,81	R 26 063,81	2.5% of total demolition cost
3				Decontamination of equipment	Decontamination of equipment - large projects		Yes	6.3.2	956670,86	%	2,50%	R 23 916,77	R 23 916,77	2,5% Allowance
4				Disposal of demolition waste	Haul 14km to facility		Yes	6.5.8	208,44	m³	R 105,72	R 22 036,49	R 22 036,49	
5														
					SUB-TOTAL 1								**R 72 017,06**	
					Preliminaries and General	6%							R 4 321,02	
					Contingency	10%							R 7 201,71	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 11 522,73**	
					GRAND-TOTAL								**R 83 539,79**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2024	
1,8	WASTE DISPOSAL													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**										
2				Waste Management	Sorting and screening of waste		Yes	6,1	1173968,10	%	2,50%	R 29 349,20	R 29 349,20	2.5% of total demolition cost
3				Decontamination of equipment	Decontamination of equipment - large projects		Yes	6.3.2	1027583,66	%	2,50%	R 25 689,59	R 25 689,59	2,5% Allowance
4				Disposal of demolition waste	Haul 14km to facility		Yes	6.5.8	208,44	m³	R 105,72	R 22 036,49	R 22 036,49	
5														
					SUB-TOTAL 1								**R 77 075,28**	
					Preliminaries and General	6%							R 4 624,52	
					Contingency	10%							R 7 707,53	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 12 332,04**	
					GRAND-TOTAL								**R 89 407,32**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2025	
1,8	WASTE DISPOSAL													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**										
2				Waste Management	Sorting and screening of waste		Yes	6,1	1173968,10	%	2,50%	R 29 349,20	R 29 349,20	2.5% of total demolition cost
3				Decontamination of equipment	Decontamination of equipment - large projects		Yes	6.3.2	1027583,66	%	2,50%	R 25 689,59	R 25 689,59	2,5% Allowance
4				Disposal of demolition waste	Haul 14km to facility		Yes	6.5.8	208,44	m³	R 105,72	R 22 036,49	R 22 036,49	
5														
					SUB-TOTAL 1								**R 77 075,28**	
					Preliminaries and General	6%							R 4 624,52	
					Contingency	10%							R 7 707,53	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 12 332,04**	
					GRAND-TOTAL								**R 89 407,32**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2026	
1,8	WASTE DISPOSAL													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**										
2				Waste Management	Sorting and screening of waste		Yes	6,1	1173968,10	%	2,50%	R 29 349,20	R 29 349,20	2.5% of total demolition cost
3				Decontamination of equipment	Decontamination of equipment - large projects		Yes	6.3.2	1027583,66	%	2,50%	R 25 689,59	R 25 689,59	2,5% Allowance
4				Disposal of demolition waste	Haul 14km to facility		Yes	6.5.8	208,44	m³	R 105,72	R 22 036,49	R 22 036,49	
5														
					SUB-TOTAL 1								**R 77 075,28**	
					Preliminaries and General	6%							R 4 624,52	
					Contingency	10%							R 7 707,53	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 12 332,04**	
					GRAND-TOTAL								**R 89 407,32**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2027	
1,8	WASTE DISPOSAL													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**										
2				Waste Management	Sorting and screening of waste		Yes	6,1	1173968,10	%	2,50%	R 29 349,20	R 29 349,20	2.5% of total demolition cost
3				Decontamination of equipment	Decontamination of equipment - large projects		Yes	6.3.2	1027583,66	%	2,50%	R 25 689,59	R 25 689,59	2,5% Allowance
4				Disposal of demolition waste	Haul 14km to facility		Yes	6.5.8	208,44	m³	R 105,72	R 22 036,49	R 22 036,49	
5														
					SUB-TOTAL 1								**R 77 075,28**	
					Preliminaries and General	6%							R 4 624,52	
					Contingency	10%							R 7 707,53	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 12 332,04**	
					GRAND-TOTAL								**R 89 407,32**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2028	
1,8	WASTE DISPOSAL													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**										
2				Waste Management	Sorting and screening of waste		Yes	6,1	1173968,10	%	2,50%	R 29 349,20	R 29 349,20	2.5% of total demolition cost
3				Decontamination of equipment	Decontamination of equipment - large projects		Yes	6.3.2	1027583,66	%	2,50%	R 25 689,59	R 25 689,59	2,5% Allowance
4				Disposal of demolition waste	Haul 14km to facility		Yes	6.5.8	208,44	m³	R 105,72	R 22 036,49	R 22 036,49	
5														
					SUB-TOTAL 1								**R 77 075,28**	
					Preliminaries and General	6%							R 4 624,52	
					Contingency	10%							R 7 707,53	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 12 332,04**	
					GRAND-TOTAL								**R 89 407,32**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS															
1,8	WASTE DISPOSAL						Closure Forecast						2029		
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE		Notes
1				**Smelter**											
2				Waste Management	Sorting and screening of waste		Yes	6,1	1173968,10	%	2,50%	R 29 349,20	R	29 349,20	2.5% of total demolition cost
3				Decontamination of equipment	Decontamination of equipment - large projects		Yes	6.3.2	1027583,66	%	2,50%	R 25 689,59	R	25 689,59	2,5% Allowance
4				Disposal of demolition waste	Haul 14km to facility		Yes	6.5.8	208,44	m³	R 105,72	R 22 036,49	R	22 036,49	
5															
					SUB-TOTAL 1								**R**	**77 075,28**	
					Preliminaries and General	6%							R	4 624,52	
					Contingency	10%							R	7 707,53	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R**	**12 332,04**	
					GRAND-TOTAL								**R**	**89 407,32**	

Impala Platinum

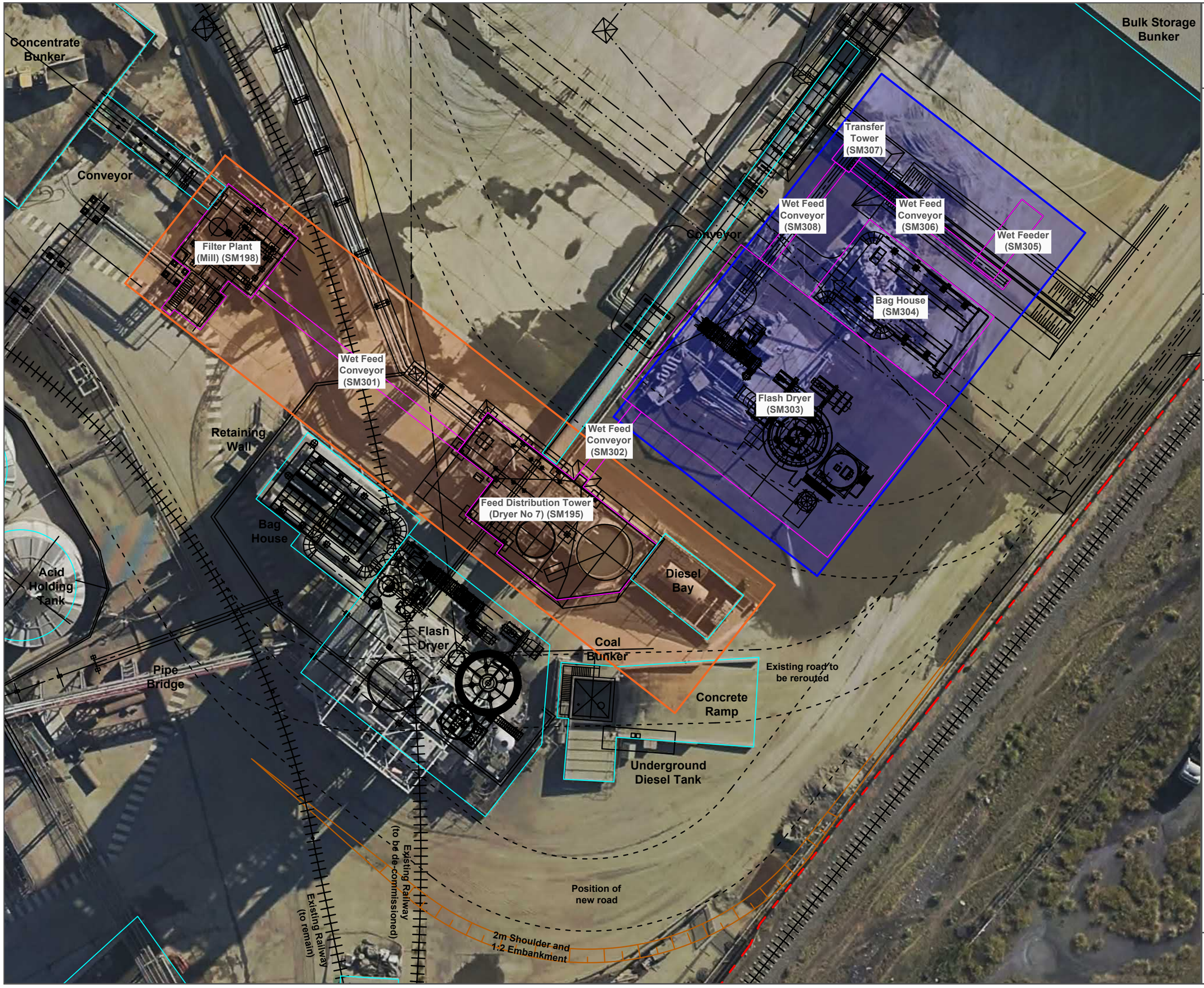
Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS							Closure Forecast						2030	
1,8	WASTE DISPOSAL													
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description		LIABLE	Rate Code	QUANTITY	Unit	Unit Rate	Unit Total	LIABLE VALUE	Notes
1				**Smelter**										
2				Waste Management	Sorting and screening of waste		Yes	6,1	1173968,10	%	2,50%	R 29 349,20	R 29 349,20	2.5% of total demolition cost
3				Decontamination of equipment	Decontamination of equipment - large projects		Yes	6.3.2	1027583,66	%	2,50%	R 25 689,59	R 25 689,59	2,5% Allowance
4				Disposal of demolition waste	Haul 14km to facility		Yes	6.5.8	208,44	m³	R 105,72	R 22 036,49	R 22 036,49	
5														
					SUB-TOTAL 1								**R 77 075,28**	
					Preliminaries and General	6%							R 4 624,52	
					Contingency	12%							R 9 249,03	
					SUB-TOTAL 2 (P&G's AND CONTINGENCIES)								**R 13 873,55**	
					GRAND-TOTAL								**R 90 948,83**	

Impala Platinum

Financial Provision: Flash Dryer Expansion

INFRASTRUCTURAL ASPECTS					
1,8		WASTE DISPOSAL			
Line No	Reference Map	GEO Reference	Year Captured	COST COMPONENT	Description
1				**Smelter**	
2				Waste Management	Sorting and screening of waste
3				Decontamination of equipment	Decontamination of equipment - large projects
4				Disposal of demolition waste	Haul 14km to facility
5					
				SUB-TOTAL 1	
				Preliminaries and General	
				Contingency	
				SUB-TOTAL 2 (P&G's AND CONTINGENCIES)	
				GRAND-TOTAL	



E-TEK CONSULTING
7 Solomon Street, Potchefstroom, 2531
www.etekconsulting.co.za
Tel: +27 (0)18 294 3652

Impala Rustenburg Smelter Complex

INCREASED FLASH DRYER CAPACITY

IMPALA
Member of the Implats Group

Impala Platinum (Pty) Ltd: Rustenburg Operations

- Smelter Complex Boundary
- Roads
- Railway lines
- Existing Infrastructure
- New Infrastructure
- Phase 1
- Phase 2

N

Coordinate System: WGS 1984 UTM Zone 35 S
Projection: Transverse Mercator
Central Meridian: 27
Datum: WGS 1984
Author: EV van Schalkwyk
Date: February 2021

REFERENCE MAP