Kloof 2 Gold Plant International Cyanide Management Code Certification Audit

Summary Audit Report

Sibanye Stillwater Limited

Kloof No.2 Plant, Gold Operations
Private Bag X2016,
Goudveld
Westonaria
2507

Prepared by:

SLR Consulting (South Africa) Proprietary Limited

Suite 1 - Building D, Monte Circle, 178 Montecasino Boulevard, Fourways, Johannesburg, Gauteng, 2191

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Project Manager	Ed Perry
Project Manager Email	eperry@slrconsulting.com
Author	Ed Perry
Reviewer	ICMI
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Basis of Report

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Acronym / abbreviation	Description
CIL	Carbon-in-Leach
CIP	Carbon-in-Pulp
DMRE	Department of Mineral Resources and Energy
DWS	Department of Water and Sanitation
ERT	Emergency Response Team
HCN	Hydrogen Cyanide
HDPE	High Density Polyethylene
HMS	Hazard Management System
ICMC	International Cyanide Management Code
ICMI	International Cyanide Management Institute
PMS	Planned Maintenance System
PPE	Personal Protective Equipment
ppm	Parts Per Million
PTO	Planned Task Observation
RWDs	Return Water Dam
Sasol	Sasol South Africa (Pty) Ltd.
SCADA	Supervisory Control and Data Acquisition
SDS	Safety Data Sheets
Sibanye	Sibanye Stillwater Limited
SLR	SLR Consulting (South Africa) (Pty) Ltd
SPG	Standard Procedure Guideline
SSMS	Stefanutti Stocks Mining Services
The Code	The International Cyanide Management Code for the Manufacture, Transport, And Use of Cyanide in the Production of Gold and Silver
The Plan	*MET2.3C-ERP Emergency Response Plan - Sodium Cyanide*
The Plant	Kloof 2 Gold Plant
The Protocol	The Mining Operations Verification Protocol
TSF	Tailings Storage Facility
WAD	Weak Acid Dissociable

1.0 Summary Audit Report for Gold Mining Operations

Name of Cyanide User Facility:	Kloof 2 Gold Plant
Name of Cyanide User Facility Owner:	Sibanye Stillwater Limited
Name of Cyanide User Facility Operator:	Sibanye Stillwater Limited
Name of Responsible Manager:	Jackson Hopane,
Address:	Kloof No.2 Gold Plant, Private Bag X2016, Goudveld Westonaria 2507
Country:	South Africa
Telephone:	+27 11 278 1171
E-mail:	elizabeth.seabela@sibanyestillwater.com

2.0 Location and description of operation

Globally, Sibanye-Stillwater is the third largest producers of platinum and palladium, and features among the world's top gold producing companies. Domiciled in South Africa, Sibanye-Stillwater owns and operates a portfolio of high-quality operations and projects, which are located and managed in two regions: the Southern African (SA) region and the United States (US) region. Since its establishment in 2013, the company has transformed itself geographically and by metal produced. From being a South African gold mining company, Sibanye-Stillwater is now an internationally competitive, diversified precious metals miner producing gold and platinum group metals. With the formal acquisition of Stillwater in May 2017, Sibanye Gold was rebranded as Sibanye-Stillwater. The company has its primary listing on the Johannesburg Stock Exchange, South Africa and is also listed on the New York Stock Exchange.

Kloof is an intermediate to ultra-deep level gold mine, situated in the West Wits Line of the Witwatersrand Basin, near the towns of Randfontein and Westonaria, approximately 60 km west of Johannesburg, in province of Gauteng, South Africa.

The Kloof ore bodies mainly comprise four gold-bearing reefs namely the Ventersdorp Contact Reef (VCR), the Middelvlei Reef (MVR), the Kloof Reef (KR), and the Libanon Reef (LR).

The VCR, located at the top of the Central Rand Group, is the main exploited reef accounting for 71% of ore mining at Kloof, while KR, MVR, and LR account for 18%, 9% and 2%, respectively.

Approximately 1% of Kloof's total gold production also comes from low-grade surface rock dumps (SRDs).

The underground mining method is predominantly used for extracting ore from the mine, while limited SRD mining involving local haul dump (LHD) trucks is employed for extracting the surface ore.

The scattered-conventional breast mining method is deployed to extract up to 79% of underground ore, while the remaining 21% of underground ore is extracted through the pillars extraction method.

The extracted ore is sent to a nearby processing complex to produce gold. The processing complex comprises a 180 kilo tonnes per month (ktpm) carbon-in-leach (CIL) plant to treat SRD ore material and a 167 ktpm carbon-in-pulp (CIP) plant to produce gold from underground and SRD ore material at an average recovery factor of 98%.

The Kloof 2 Gold Plant uses liquid cyanide that is purchased cyanide from Sasol South Africa (Pty) Ltd (Sasol) that is manufactured at Sasolburg in South Africa. This is a facility that is certified as being in compliance with the Code. Kloof 2 has only used liquid cyanide from Sasol since it started operations. The liquid cyanide is offloaded into storage tanks from the tanker from where it is sent to the dosing points.

The cyanide is dosed to two Dosing Points using a feed forward ratio control based on the thickener underflow mass flow inputs. Feedback control is used from the readings of the on-line TAC 1000 free cyanide analyser adjusting the ratio controller.

The Leeudoorn Tailings Storage Facility (TSF) has a capacity of 36.4 million tonnes (Mt) and is fed by the Kloof No. 2 Plant (Kloof 2). The LoM requirements for this TSF is 18.5 Mt, resulting in a surplus capacity of 17.9 Mt. The No. 2 TSF was fed from No. 1 Plant, which is closed.

Water is returned to the Plant from the TSF via two Return Water Dams (RWDs). The monitoring shows the concentration of Weak Acid Dissociable (WAD) cyanide in the return water to be below 0.5 mg/l and therefore the RWDs are not considered to be a cyanide facility. In addition, this does not cause any part of the milling circuit to be classified as a cyanide facility.

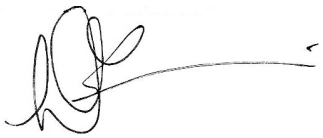
The Plant has a Catchment Dam to contain any spillages. Any liquid in the Catchment Dam is pumped back to the process. The monitoring shows the concentration of WAD cyanide in the Catchment Dam is below 0.5 mg/l and therefore the Catchment Dam is not considered to be a cyanide facility.

SUMMARY AUDIT REPORT

Auditors Findings

Noligwa Gold Mine is:	☒ **in full compliance with**	**The International Cyanide Management Code**
	☐ in substantial compliance with	
	☐ not in compliance with	

Audit Company:	SLR Consulting (Africa) (Pty) Ltd
Audit Team Leader:	Ed Perry, Lead Auditor
Email:	eperry@slrconsulting.com
Mine Technical Auditor	Dawie Viljoen, Afritech (ICMI pre-certified Mine Technical Specialist).



Kloof 2 Gold Plant
Name of Facility

Signature of Mine Technical Auditor

May 2024
Date

DATES OF AUDIT

The Certification Audit was undertaken between 9 October 2023 to 12 October 2023.

I attest that I meet the criteria for knowledge, experience, and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute (ICMI) and that all members of the audit team meet the applicable criteria established by the International Cyanide Management Code Verification Auditors.

I attest that this Summary Audit Report accurately describes the findings of the verification audit. I further attest that the verification audit was conducted in a professional manner in accordance with the International Cyanide Management Code Mining Operations Verification Protocol and using standard and accepted practices for health, safety and environmental audits.

The “International Cyanide Management Code for The Manufacture, Transport, And Use of Cyanide In The Production Of Gold and Silver” (the Code) was developed by a multi-stakeholder Steering Committee under the guidance of the United Nations Environmental Program (UNEP) and the then, International Council on Metals and the Environment.

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Name of Facility

Signature of Lead Auditor

May 2024
Date

The Code is a voluntary industry programme for gold and silver mining companies, and companies involved with the production and transport of cyanide to gold and silver mining companies; it focuses exclusively on the safe management of cyanide. Companies that adopt the Code must have their operations, which manufacture cyanide, transport cyanide or `use cyanide to recover gold and silver, audited by an independent third party to determine the status of the Code's implementation. Those operations that meet the Code's requirements can be certified and are able to use a unique trademark symbol, which identifies the company as a certified operation. Audit results are made public to inform stakeholders of the status of cyanide management practices at the certified operation.

The objective of the Code is to improve the management of cyanide used in gold and silver mining and assist in the protection of human health and the reduction of environmental impacts (refer to www.cyanidecode.org). The Code is managed by the ICMI.

Principle 1 – Production and Purchase

Encourage Responsible Cyanide Manufacturing by Purchasing from Manufacturers that Operate in a Safe and Environmentally Protective Manner.

Standard of practice 1.1: Purchase cyanide from certified manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide, and to prevent releases of cyanide to the environment.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 1.1**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 1.1; to purchase cyanide from manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide, and to prevent releases of cyanide to the environment.

Kloof 2 purchases cyanide from Sasol South Africa (Pty) Ltd (Sasol) that is manufactured at Sasolburg in South Africa. This is a facility that is certified as being in compliance with the Code. Kloof 2 has only used liquid cyanide from Sasol since it started operations. Sasol is the only supplier of liquid cyanide in South Africa and Kloof 2 does not have the ability to use solid cyanide.

Sasol Operation is currently certified as fully ICMI. Sasol was first certified on 8 March 2007 and most recently recertified on 7 March 2022.

Principle 2 – Transportation

Protect Communities and the Environment During Cyanide Transport.

Standard of practice 2.1: Require that cyanide is safely managed through the entire transportation and delivery process from the production facility to the mine by use of certified transport with clear lines of responsibility for safety, security, release prevention, training and emergency response.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 2.1**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 2.1 requiring that cyanide is safely managed through the entire transportation ad delivery process from the production facility to the mine by use of certified transport with clear lines of responsibility for safety, security, release prevention, training, and emergency response.

The operation has chain of custody records or other documentation identifying all transporters and supply chains responsible for transporting cyanide from the producer to the operation.

All identified transporters are individually certified in compliance under the Code.

Currently, the Plant is only supplied with liquid cyanide from Sasol, a certified producer with the first certification on 8 March 2007 and the latest recertification on 7 March 2022. The liquid cyanide is transported by Tanker Services Food and Chemicals/ Imperial Logistics (Tanker Services) a certified Transporter who were first certified on 13 December 2011 with the latest recertification on 1 April 2022.

The Base Chemicals terms of sale from Sasol - May 2023, signed by Sibanye VP Procurement and Sasol, includes the delivery of liquid sodium cyanide to the Plant.

Principle 3 – Handling and Storage

Protect Workers and the Environment During Handling and Storage.

Standard of practice 3.1: Design and construct unloading, storage and mixing facilities consistent with sound, accepted engineering practices, quality control/quality assurance procedures, spill prevention and spill containment measures.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 3.1**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 3.1; design and construct unloading, storage facilities consistent with sound accepted engineering practices, quality control/quality assurance procedures, spill prevention and spill containment measures.

The facilities for unloading and storing liquid cyanide have been designed and constructed in accordance with Sasol, the cyanide producers' guidelines, applicable jurisdictional rules and other sound and accepted engineering practices for these facilities. A Sasol technical inspection of the unloading and storage facilities is conducted annually.

The liquid cyanide unloading and storage facilities are located away from people and surface waters. The operation does not store incompatible materials such as acids, strong oxidisers and explosives adjacent to the concrete containment bund provided for the cyanide storage tanks.

It was verified during the site inspection that the offloading and storage areas for the liquid sodium cyanide are closed off with restricted access, bund walls have been installed, and there are no public areas close by. There are no surface waters or drainage to surface waters from the cyanide storage area or the Plant as a whole. The operation only uses liquid sodium cyanide delivered by bulk tanker and therefore, no mixing of solid cyanide takes place on site.

The liquid cyanide is unloaded on a concrete surface that can minimise seepage to the subsurface and the unloading area is designed and constructed to contain and recover any leakage from the tanker truck. The drainage for this area is directed to the concrete bund for the storage tanks via a lockable valve. From there the spillage sump equipped with a pump, will deliver any liquid into the leach feed.

There are systems in place to prevent the overfilling of Cyanide Storage Tanks, and the systems are tested and maintained on a routine basis.

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There is a radar level indicator installed in the tanks with a high level alarm set at 90%. This was confirmed by the auditors on the Supervisory Control and Data Acquisition (SCADA) system during a visit to the Control Room.

Ring feed pumps are interlocked and set to trip when the tank level reaches 90%. There is a level indicator display at the storage area and on the SCADA system.

Procedure *MET.2.3C-SPG2 Offload Sodium Cyanide into Bulk Storage Facility*, dated 1 April 2021 states that the chemical handler closes the air valve to prevent overfilling of tanks. The offloading air solenoid valve is interlocked with the high-level setting of 90% on the tanks automatically closing the air and the high level alarm will sound.

The cyanide level measurement system is included in the PRAGMA planned maintenance system and is tested on a monthly basis.

It was verified by the auditors during the site inspection that the Cyanide Storage Tanks are conically designed tanks installed on steel uprights such that any leaks can be visibly observed. The tanks are located inside a concrete bund to prevent seepage to the subsurface.

The secondary containment for the Cyanide Storage Tanks is constructed of concrete. This was observed to be in good condition by the auditors. Flood tests are undertaken on a six monthly basis and the results have not indicated any leaks.

The following was confirmed during the site inspection.

a) No solid cyanide is stored or used at the Plant.
b) The liquid Cyanide Storage Tanks are located outside and include ventilation pipes on top of the tanks and overflow pipes are equipped with hydrogen cyanide (HCN) gas traps.
c) The Cyanide Storage Tanks are situated inside the Plant which has restricted access control. The tank farm area is also fenced and locked.
d) The Cyanide Storage Tanks are located inside a concrete bund. Nothing else is stored in or adjacent to the bund. All cyanide delivered to site is in the form of liquid cyanide and stored in tanks in a secure open air compound.

Standard of practice 3.2: Operate unloading, storage and mixing facilities using inspections, preventative maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 3.2**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 3.2; operate unloading and storage facilities using inspections, preventative maintenance, and contingency plans to prevent or contain releases and control and respond to worker exposures.

The Plant only uses liquid sodium cyanide delivered in bulk tankers from the Sasol production facility in South Africa. No solid cyanide is used.

Procedure *MET.2.3C-SPG2 Offload Sodium Cyanide into Bulk Storage Facility*, includes the steps to be undertaken for rinsing the offloading hoses.

The operation has developed and implemented plans or procedures to prevent exposures and releases during cyanide unloading activities including the following.

a) Procedure *MET.2.3C-SPG2 Offload Sodium Cyanide into Bulk Storage Facility*, dated 1 April 2021 includes operation of valve and couplings in Section 4 Steps / Sequence of events including connection and disconnection of cyanide offloading hoses. In addition, the Cyanide Offloading Checklist is used for each offloading event to ensure that the operation is undertaken in the correct manner, including the operation of all hoses, valves and couplings.

Procedure *MET.2.3C-SPG39 Inspection Plant Areas*, dated 15 Feb 2023 includes a requirement for all pipes and valves to be inspected and recorded in the Shiftily Log Sheet.

b). The liquid cyanide is delivered by road tanker and therefore a procedure is not required to prevent rupturing or puncturing.

c). The liquid cyanide is delivered by road tanker and therefore a procedure is not required to limit the height of stacking of cyanide containers.

d) Timely cleanup of any spills of cyanide during transfer of liquid cyanide from tanker trucks is detailed in *MET.2.3C-SPG16 Clean Up Spillage - Reagent Strength Sodium Cyanide*

e) Procedure *MET.2.3C-SPG2 Offload Sodium Cyanide into Bulk Storage Facility*, includes Section 4.3 Inspect and dress up in appropriate compulsory PPE.

Procedure *MET.2.3D-SPG21 Perform buddy duties and responsibilities*; dated October 2019, describes the role and responsibilities of the second individual observing from a safe distance (i.e. the Buddy).

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f) The auditors observed during the site inspection that the colour of the liquid cyanide at the Dosing Point one is red due to the incorporation of the dye.

Principle 4 – Operations

Manage Cyanide Process Solutions and Waste Streams to Protect Human Health and the Environment.

Standard of practice 4.1: Implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventative maintenance procedures.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 4.1**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 4.1; to implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventative maintenance procedures.

The operation has developed written management and operating plans or procedures for cyanide facilities including unloading, and storage facilities, process plants, and tailings impoundments.

The Kloof 2 Plant has 36 procedures for the management and operation of cyanide related processes including offloading and inspections.

Stefanutti Stocks Mining Services (SSMS) has a list of 23 procedures for the operation of the TSF. In addition to the SSMS procedures there is; the Sibanye Stillwater: Kloof Plant 2 Leeudoorn TSF Mandatory Code of Practice for Mine Residue Deposits, dated 21 July 2022, by Knight Piesold, and the Leeudoorn TSF - Tailings Operations, Maintenance and Surveillance Manual July 2022, Ver 1.5 dated 28 September 2022.

The operation's plans and procedures identify and account for the assumptions and parameters on which the facility's design was based and any applicable regulatory requirements as necessary to prevent or control cyanide releases and exposures consistent with applicable requirements.

Procedure *MET2.3 C- SPG8 Response to High WAD Samples* dated September 2023 specifies Weak Acid Dissociable (WAD) Cyanide operating levels in Section 3.1 specifying the action to be undertaken when WAD cyanide levels exceed 50 ppm in the tailings.

The Plant Metallurgist enters any changes in setpoint of the free cyanide concentrations in a logbook. At the time of the audit the settings at Dosing Point 1 was 220 ppm free cyanide and at Dosing Point 2 was 120 ppm free cyanide.

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The pH levels on the SCADA are set at 10.5 for the thickeners and 10.8 for Leach Tank 1.

Leeudoorn TSF - Tailings Operations, maintenance and surveillance manual July 2022 Ver 1.5, dated 28 September 2022 section 4.6.2 states that the freeboard for the TSF is 800 mm above the combined elevation of the operating water level plus a 1:50 year storm pond level. This gives a freeboard requirement of approximately 1.7 m.

The operation has plans and procedures that describe the standard practices necessary for the safe and environmentally sound operation of the facility including the specific measures needed for compliance with the Code, such as water management, inspections and preventive maintenance activities.

Procedure *MET.2.3C-SPG39 Inspection Plant Areas* details the inspections that need to be undertaken of the Plant on a shiftly basis. All faults identified are recorded through raising a job card as part of the PRAGMA planned maintenance system (PMS), which is submitted to the Engineering department for repair. The Cyanide Offloading Checklist is used to inspect the offloading area including the first aid room that is adjacent to the offloading area, prior to any offloading event.

SER.EE.2.4 SPG-32 Fire Extinguisher Standard Procedural Guideline, dated August 2023 details the checklist for monthly inspections, and requires a monthly inspection sticker as well as annual inspection sticker placed on the unit. Emergency Safety Showers are tested as part of the Inspection of Plant Areas. At the end of the shift any deficiencies are recorded in the Shift Supervisors Inspection Book.

The PMS includes all critical elements of the Plant with inspections on a weekly, monthly, 6 monthly and annual basis. This includes tank thickness testing and structural inspections.

SSMS conducts daily TSF inspections. This included wildlife mortality, slurry pipeline and valves, and personal gas monitor readings. Freeboard is measured using surveyed poles and entered on the Excel spreadsheet on a monthly basis. The monthly spreadsheet reports include piezometer readings, drain flow, rainfall, tonnages and densities, freeboard, and tower alignment.

The TSF is inspected on a quarterly basis by Knight Piesold. The quarterly report includes details of: tailings deposition, rate of rise, freeboard, pool management and penstock phreatic trends, underdrain flows, return water dams seepage, environmental, incidents, site visit findings, action list, conclusions and recommendations.

The TSF daily inspections includes the physical integrity of surface water diversions preventing surface water from entering the TSF and RWDs. The Plant shiftly inspections includes the physical integrity of the surface water diversions preventing surface water from entering the Plant.

The operation implements procedures to review proposed changes to production processes, operating practices, or cyanide facilities to determine if they may increase the potential for cyanide releases and worker exposures, and incorporate any measures necessary to protect worker health and safety and the environment.

Safety 2.4A SPG Change Management Procedure dated September 2019 includes; process overview, identifying a need for change, planning for the change, and change implementation. Annexure A includes the forms for the documentation of the change

management process. Section 2.8 states that the changes request must be reviewed by the relevant Head of Department and subject matter expert i.e. if the change gives rise to any environmental or health and safety issues the Head of that Departments will need to sign the form.

The operation has cyanide management contingency procedures for non-standard operating situations that may present a potential for cyanide exposures and releases. Leeudoorn TSF - Tailings Operations, maintenance and surveillance manual July 2022 Ver 1.5, dated 28 September 2022 section 4.6.2 states that the freeboard for the TSF is 800 mm above the combined elevation of the operating water level plus a 1:50 year storm pond level which equals approximately 1.7 m. The report noted that the freeboard was 2.08 m. The freeboard is measured on a monthly basis. Therefore, if there is a 1:50 year storm this can be managed on the TSF without compromising the storage capability of the TSF.

The RWDs are kept empty to ensure they are able to cope with a storm event. In the event that the RWDs are unable to cope with the volume of rainfall an investigation is undertaken. A recent investigation has led to the RWDs being desilted, to ensure their full capacity is available.

Any problems identified by the facility monitoring or inspections will instigate a job card being raised to rectify the problem as part of the PMS.

Standard stopping and starting procedures for the various sections of the plant are used during planned shutdowns. A National Strike/ Stay Away Contingency Plan, dated March 2023 was observed that details the processes for a shutdown longer than that undertaken as part of the normal maintenance programme. This details how cyanide would be safely managed during long-term shutdowns or cessations in operation including the management of any cyanide on site, including cyanide solution within tanks, vessels, pipelines, ponds and impoundments.

The procedures include *MET.2.3D KP2 Start-up Metallurgical Processes*, dated December 2018, which details the process for starting up the Plant following a partial or total planned or unplanned shutdown.

The operation uses liquid cyanide delivered by road tanker and therefore does not have a mixing facility as the liquid is offloaded directly into the Cyanide Storage Tanks. The operation inspects the following at unloading, storage, and process areas.

The PMS includes the inspection of cyanide solution storage tanks. Thickness testing is conducted annually on the cyanide solution storage tanks. Thickness testing of the Leach Tanks is undertaken every two years. Thickness testing for the CIP tanks is undertaken depending on their condition as observed when they are taken offline for maintenance.

The shiftly Plant inspections include checking process tanks for structural integrity and signs of corrosion and leakage.

Procedure *MET.2.3C-SPG39 Inspection Plant Areas* details the inspections that need to be undertaken of the Plant on a shiftly basis, which includes secondary containments provided for tanks and pipelines for physical integrity, the presence of fluids and available capacity. At the end of the shift any deficiencies are recorded in the Shift Supervisors Inspection Book.

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The tailings pipeline is inspected daily, and the condition recorded as part of the Tailings Dam Daily Log Sheet. There are no leak detection systems at any of the ponds or the TSF. There is no heap leach facility on site. In addition to pipelines, pumps and valves being inspected as part of the shiftly Plant inspection, they are also included in the PMS. Valves are included as part of the pump inspections.

The operation inspects the cyanide facilities on an established frequency sufficient to ensure and document that they are functioning within design parameters. The Plant inspections are undertaken on a shiftly basis. The Cyanide Offloading inspection is undertaken before each offloading event. The fire extinguishers are inspected on a monthly basis and serviced annually. The TSF is inspected on a daily and quarterly basis. The PMS includes all critical elements of the Plant with inspections on a weekly, monthly, 6 monthly or annual basis.

The inspections are documented with the documentation identifying specific items to be observed and include the date of the inspection, the name of the inspector, any observed deficiencies, and the nature and date of the corrective actions.

Preventive maintenance programs are implemented, and activities documented to ensure that equipment and devices function as necessary for safe cyanide management. The PMS has been in place since 2008, the system covers critical cyanide equipment as part of an asset register. The Asset Register includes; thickener pumps, spillage pumps, cyanide pumps, tank instrumentation, elution, treatment pump, elution spillage pump, barren pumps, cyanide storage area, slurry transfer pumps, Leach Tanks, fixed HCN gas monitors, cyanide pumps, cyanide tanks, cyanide instrumentation, cyanide man down alarms, and safety showers.

The operation has the necessary processes to prevent unintentional releases and exposures in the event that its primary source of power is interrupted. Kloof 2 Plants is linked to 3 power supply sources on a ring main system, reducing the risk of a major power failure over an extended period of time.

The Plant has been designed with bunds and sumps to contain all slurries and solutions before it is pumped back into the process, therefore no spillage will occur during power failures. Should any sumps or bunds overtop the Catchment Dam is designed to contain any spillage from the Plant. The pumping systems are designed with interlocks and safe to failure systems to prevent spillages during power failures. If there is a storm event the Plant will stop operating in order to reduce the amount of water going to the TSF.

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Standard of practice 4.2: Introduce management and operating systems to minimise cyanide use, thereby limiting concentrations of cyanide in mill tailings.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 4.2**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 4.2; introducing management and operating systems to minimise cyanide use, thereby limiting concentrations of cyanide in mill tailings.

The auditors observed the Maelgwyn leachability test report dated Oct 2021 covering all shafts feeding the Plant. Conclusions include a dissolution between 95 % and 97.9%. The diagnostic leach indicates that 94% of the gold is free milling and there is no significant preg robbing. Rock dump samples also indicate that insignificant preg robbing constituents are present.

Diagnostic leach testing is undertaken monthly at the Driefontein Plant Laboratory on residue samples indicating leachable gold losses. Bottle roll test work is undertaken on a monthly composite sample on site.

The cyanide is dosed at two Dosing Points in the CIL using a feed forward ratio control based on the thickener underflow mass flow inputs. Feedback control is used from the readings of the online TAC 1000 free cyanide analyser adjusting the ratio controller.

Manual samples and titrations are used as back up. TAC 1000 results can send short message service (SMS) messages to supervisors warning of alarm conditions. A daily report is also sent via SMS. In addition the Plant has online WAD analysis using the WAD 1000-S is implemented which sends an SMS message if elevated WAD levels are measured.

When the cyanide concentration is revised this is recorded in the cyanide dosing book.

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Standard of practice 4.3: Implement a comprehensive water management program to protect against unintentional releases.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 4.3**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 4.3; implement a comprehensive water management programme to protect against unintentional releases.

The operation has developed a comprehensive, spreadsheet based probabilistic water balance - KP2 Dynamic Water Balance Rev 1.1. The daily precipitation records together with historic rainfall records are employed by the water balance to model the uncertainty and variability in the prediction of precipitation patterns, including the ability to consider the frequency and distribution of precipitation events along with extremes and seasonal variations.

The software shows the dam levels in the event of a 1 in 50 year 24 hr storm event, a 1 in 100 year 24 hr storm event, and the maximum 24 hr storm.

The water balance considers the following in a reasonable manner and as appropriate for the facilities and the environment. The auditors observed the input data sheets for the model.

a) The rates at which tailings are deposited into the tailings storage facility is included in the model.
b) A design storm duration and storm return interval that provides a sufficient degree of probability that overtopping of the pond or impoundment can be prevented during the operational life of the facility. Knight Piesold (Water Management Continuation Report) used the water balance to assess the effect on the TSF of a 1 in 50 year 24 hour storm event (115 mm) and a 1 in 10,000 year 24 hour storm event (209 mm). The TSF can contain a 1 in 10,000 year storm without overtopping but the water would need to be pumped off the TSF at the earliest opportunity and therefore the RWDs should be kept empty to accommodate this.
c) The quality of existing precipitation and evaporation data in representing actual site conditions. The precipitation data is measured on site and updated on an annual basis. The storm events are based on 50 years of data from the closest weather station. The evaporation data is calculated for the site based on the Engineer of Record's data. The evaporation data is calculated for the site based on the Engineer of Record's data. The water balance considers the quality of existing precipitation and evaporation data in representing actual site conditions.
d) There are storm water diversion trenches for the Plant, TSF and RWDs. Therefore, the amount of surface run-on is not applicable.

e) The effects of potential freezing and thawing conditions on the accumulation of precipitation within the facility and the up gradient watershed is not applicable to the site.
f) Solution losses in addition to evaporation, such as the capacity of decant, drainage and recycling systems, allowable seepage to the subsurface, and allowable discharges to surface water. Seepage to subsurface is included based on the Engineer of Record data. There are no discharges to surface water except in the event of an emergency due to extreme weather conditions.
g) The effects of potential power outages or pump and other equipment failures on the emergency removal of water from a facility. Kloof 2 Plants is linked to 3 power supply sources on a ring main system, reducing the risk of a major power failure over an extended period of time. Water can drain from the TSF to the RWDs by gravity, therefore power is not required for the emergency removal of water from the facility.
h) The capacity and on-line availability of necessary cyanide treatment, destruction or regeneration systems is not appliable as there is no treatment system on site and no discharge to surface water.
i) The assumed phreatic surface in the tailings storage facility is included in the model at an assumed level of 50%.

The ponds and impoundments are designed and operated with adequate freeboard above the maximum design storage capacity determined to be necessary from the water balance calculations.

The software shows the dam levels in the event of a 1 in 50 year 24 hr storm event, a 1 in 100 year 24 hr storm event, and the maximum 24 hr storm and therefore the levels below which the dams need to be maintained. The RWDs need to be below 15% to accommodate a 1 in 50 year event and 7% for a 1 in 100 year event. The Plant Catchment Dam needs to be below 25% to accommodate a 1 in 50 year event and 16% for a 1 in 100 year event.

The operation's operating procedures incorporate inspection and monitoring activities as necessary to implement the water balance and prevent overtopping of ponds and impoundments and unplanned discharge of cyanide solutions to the environment.

RWDs and Plant Catchment Dam levels are measured using level indicators and displayed on the SCADA system. TSF inspections are conducted daily, weekly and quarterly, which detail the freeboard that is available, ensuring that it is within the legally prescribed limits.

The operation measures precipitation, compares the results to design assumptions and revises operating practices as necessary. The precipitation is measured on site and input into the water balance on an annual basis. The quarterly reports by Knight Piesold includes the following.

- Freeboard: Legal requirement 1.7 m, and observed freeboard of 2.08 m.
- Rainfall: includes graphs of maximum 24 hr storm per month as well as monthly rainfall trend.

This data is used to manage the TSF and recommend any changes in operating practices.

Standard of practice 4.4: Implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 4.4**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 4.4; implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.

It has not been necessary for the operation to implement measures (e.g., fencing, filling in collection ditches with gravel, and covering or netting solution in ponds and impoundments) to restrict access by wildlife and livestock to all open waters where WAD cyanide exceeds 50 mg/l as there are no open waters on site where WAD cyanide exceeds 50 mg/l.

The operation can demonstrate that the cyanide concentration in open water in the TSF and solution ponds does not exceed 50 mg/l WAD cyanide. The Plant Catchment Dam WAD cyanide values were observed to be less than 0.5 mg/l WAD cyanide and thus is not classified as a cyanide facility.

The sampling point is the on-line WAD analyser in the Plant. The online WAD 1000 analyser takes samples every 15 minutes, and the values are recorded in the SCADA system. The Plant calculates the daily average WAD cyanide and records this data in a spreadsheet. The data for 2023 was observed by the auditors and there were no exceedances i.e. no instances above 50 ppm WAD cyanide. Any exceedance of the 50 mg/l WAD cyanide limit will be investigated and documented. This has not happened to date.

The Plant Catchment Dam WAD cyanide values for 2023 were observed to be less than 0.5 mg/l WAD cyanide and thus is not classified as a cyanide facility. The results for the RWDs for 2023 are all below 0.5 mg/l, thus the RWDs are not classified as a cyanide facility.

The TSF and Plant are inspected for wildlife mortalities on a daily basis. No wildlife mortalities were recorded in 2023.

There is no heap leach on site.

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Standard of practice 4.5: Implement measures to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 4.5**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard 4.5 to implement measure to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.

The operation does not have a direct discharge to surface water.

In the event of an extreme rainfall event the RWDs can overflow to the Loopspruit Stream. If this happens it is treated as an emergency and investigated.

One such an event has happened in the last three years, which was in January 2023, due to a series of rainfall events over the period of a week. The result of the investigation was the desilting of the RWDs in order to maintain their design capacity. The discharged water was also monitored and found to be below 0.5 mg/l WAD cyanide. The monthly water monitoring results for the RWDs for 2023 are all below 0.5 mg/l, thus the RWDs are not classified as a cyanide facility.

The operation does not discharge to surface water except in the event of an emergency.

The surface water is monitored upstream and downstream of the Plant and TSF on a monthly basis. The auditors observed a map of the monitoring locations.

The auditors observed the results of the monitoring from September 2020 to date and all of the results were below 0.022 mg/l free cyanide. The South African Regulator does not define any mixing zones with regards to discharges to surface water.

No indirect discharge from the operation has caused cyanide concentrations in surface water to rise above levels protective of beneficial use.

Standard of practice 4.6: Implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of groundwater.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 4.6**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 4.6 to implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of groundwater.

The operation implements specific water management and other measures to manage seepage to protect the beneficial use of ground water beneath and / or immediately down gradient of the operation.

The TSF is operated as conventional ring dyke daywall paddock impoundments, constructed using an upstream method. Supernatant and storm water are decanted off the facility via penstock tower inlets, through gravity outlet pipes to the RWDs. In addition, there are underdrains that also drain to the RWDs from where the water is pumped to the Plant for re-use.

The only beneficial use of groundwater in the area is by the mining processing plants. All other water for domestic and livestock use in the immediate area is supplied from the local potable water supplier, the Midvaal Water Company.

All tanks containing cyanide within the Plant are situated on concrete and within a concrete bund to prevent seepage into the surrounding ground. The monthly water monitoring results for the RWDs for 2023 are all below 0.5 mg/l, thus the RWDs are not classified as a cyanide facility.

The operation monitors for cyanide in groundwater downgradient of the site and can demonstrate that concentrations of WAD cyanide (or other species of cyanide for which there is a numerical standard established by the applicable jurisdiction) in groundwater at compliance points below or downgradient of the facility are at or below levels that are protective of identified beneficial uses of the groundwater.

The groundwater limit for total cyanide in South Africa is 0.5 mg/l. The results observed since September 2020 for the monitoring of boreholes downgradient of the Plant and the TSF all show that the results are below 0.5 mg/l. The monitoring is undertaken on a quarterly basis.

Mill tailings are not used as underground backfill

Standard of practice 4.7: Provide spill prevention or containment measures for process tanks and pipelines.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 4.7**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 4.7; Provide spill prevention or containment measures for process tanks and pipelines.

Spill prevention or containment measures are provided for all unloading, storage, and process solution tanks.

The Cyanide Storage Tanks, Leach Tanks, and Tailings Tanks are conically designed tanks installed on steel uprights such that any leaks can be visibly observed. The CIP tanks are flat bottom tanks - elevated and installed on concrete rings on concrete legs raised above the bund such that any leaks can be visibly observed. The electrowinning tanks are placed on steel beams such that any leaks can be visibly observed. All of the tanks are located inside a concrete bund to prevent seepage to the subsurface.

Secondary containments for cyanide unloading, storage, and process tanks are sized to hold a volume greater than that of the largest tank within the containment and any piping draining back to the tank, and with additional capacity for the design storm event as detailed below.

- Cyanide storage largest tank is 38 m^3, bund volume is 52 m^3.
- Leach largest tank is 1000 m^3, bund volume is 1360 m^3.
- CIP tank is 268 m^3, bund volume is 364 m^3.
- Residue tank is 540 m^3, bund volume is 743 m^3.
- Elution largest tanks is 95 m^3, bund volume is 100 m^3. The tanks are situated above the bund, therefore the bund will not be affected by rainfall. However, if the bund were to overflow for any reason it would decant into the CIP tank bund.

Procedures are in place and being implemented to prevent discharge to the environment of any cyanide solution or cyanide contaminated water that is collected in a secondary containment area.

All of the bunds are equipped with sump pumps returning spillages and water back to the process tanks. The Catchment Dam is used for the collection of stormwater and the containment of spillages in an emergency.

The sump pump for the Cyanide Solution Tanks' bund pumps to the Leach Tanks only, the sump is equipped with a level detector connected to the SCADA system, but needs to be

started manually. *Procedure MET.2.3C-SPG Inspect Plant Areas*, dated 15 Feb 2023 includes the monitoring of all bund levels which are recorded in the Shiftly Extraction Log Sheet,

Spill prevention or containment measures are provided for all process solution pipelines to collect leaks and prevent releases to the environment. All reagent strength pipelines run across concrete areas connected to bunds acting as secondary containment with flange covers fitted to all flanges.

Reagent strength cyanide lines are included in the PMS.

Procedure MET.2.3C-SPG Inspect Plant Areas, dated 15 Feb 2023 includes a shiftly inspection for all pipeline leakages, crystallisation, and observation of the general condition.

The TSF line from the Plant to the TSF is constructed of steel pipes with a High Density Polyethylene (HDPE) lining, placed inside earth containment berms. The ring main pipelines at the TSF are placed adjacent to the slimes dam solution trenches catchment area. All pipes, valves and pumps are part of the PMS. TSF pipe inspections are conducted daily. Any incident is reported on the WhatsApp group.

Cyanide tanks and pipelines are constructed of materials that are compatible with cyanide and high pH conditions. All cyanide tanks are constructed of mild steel. The cyanide reagent strength pipelines are made of mild steel as per the Sibanye standard for cyanide reagent strength pipelines. The tailings pipelines are made of mild steel with an internal sleeve of HDPE.

There are no cyanide process tanks without secondary containment. There are no areas where cyanide pipelines present a risk to surface water.

Standard of Practice 4.8: Implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.

The operation is

☒ in full compliance with

☐ in substantial compliance with **Standard of Practice 4.8**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 4.8; to implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.

Quality assurance and quality control programs were implemented during the construction and substantial modification of all cyanide facilities, however due to the age of the Plant and the transfer of ownership the records are not available.

The Plant Boiler Makers are trained in the Structural Inspection Maintenance Management System (SIMMS) for Plant Structures. The training is provided at the Sibanye Academy. Following the successful completion of the SIMMS training the individuals are certified to undertake structural inspections.

The certified Boiler Makers undertake an annual inspection of the Plant's structures. If any significant deficiency is observed this is communicated to the Sibanye Structural Engineer for further inspection. A report on the recommendation by the Structural Engineer following an inspection of Thickener 1 that identified corrosion on the central spindle was observed by the auditors. The recommendation was for repairs, which were undertaken and signed off by the Sibanye Structural Engineer, also observed by the auditors.

The annual structural inspection is included as part of the PMS and recorded electronically on the system.

Preventive maintenance programs are implemented, and activities documented to ensure that equipment and devices function as necessary for safe cyanide management. The PMS has been in place since 2008, the system covers critical cyanide equipment as part of an asset register. The Asset Register includes; thickener pumps, spillage pumps, cyanide pumps, tank instrumentation, elution, treatment pump, elution spillage pump, barren pumps, cyanide storage area, slurry transfer pumps, Leach Tanks, fixed HCN gas monitors, cyanide pumps, Cyanide Storage Tanks, cyanide instrumentation, cyanide man down alarms, and safety showers.

The PMS includes; the annual structural inspections, and the inspection of cyanide solution storage tanks. Thickness testing is conducted annually on the Cyanide Solution Storage Tanks. Thickness testing of the Leach Tanks is undertaken every two years. Thickness

testing for the CIP Tanks is undertaken depending on their condition as observed when they are taken offline for maintenance.

Procedure *MET.2.3C-SPG39 Inspection Plant Areas* details the inspections that need to be undertaken of the Plant on a shiftly basis, which includes secondary containments provided for tanks and pipelines for physical integrity, the presence of fluids and available capacity. At the end of the shift any deficiencies are recorded in the Shift Supervisors Inspection Book.

The tailings pipeline is inspected daily, and the condition recorded as part of the Tailings Dam Daily Log Sheet. In addition to pipelines, pumps and valves being inspected as part of the Shiftly Plant Inspection, they are also included in the PMS. Valves are included as part of the pump inspections.

A quarterly assessment of the and report on the status of the TSF are undertaken by the Engineer of Record, Knight Piesold.

Leeudoorn Upper and Lower TSF Quarterly Monitoring Report - R1301-00726/41-A – dated 20 June 2023 includes the following; tailings deposition, rate of rise, freeboard, pool management and penstock, phreatic level trends, underdrain flows, return water dams and seepage, rainfall, environmental, incidents, site visit findings, and action list. No significant issues were reported.

Standard of Practice 4.9: Implement monitoring programs to evaluate the effects of cyanide use on wildlife, and surface and groundwater quality.

The operation is

☒ in full compliance with

☐ in substantial compliance with **Standard of Practice 4.9**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 4.9; to implement monitoring programs to evaluate the effects of cyanide use on wildlife, surface and groundwater quality.

The operation has developed the following written standard procedures for monitoring activities. the *Sibanye Cyanide Sampling Procedure* dated August 2023. This is a Group procedure applicable to all Sibanye Plants. This includes surface and groundwater monitoring activities. Wildlife monitoring is part of the daily inspections by the TSF personnel.

The sampling and analytical protocols have been developed by an appropriately qualified person.

The sampling protocol has been developed using Mintek (South Africa's national mineral research organisation) procedures by HPJ Pretorius a scientist with an MSc in Environmental Management specialising in water quality. The auditors observed the professional registration card no. 400447/04. The co- author is Alfonso Le Roux an Environmental Practitioner - the original procedure was reviewed and made group specific by Sylvester Nkwe, Acting Unit Manager (Environmental).

The Environmental Monitoring Plan includes procedures specifying how and where samples should be taken, sample preservation techniques, chain of custody procedures, shipping instructions, cyanide species to be analysed and quality assurance and quality control requirements for cyanide analyse.

Sampling conditions (e.g. weather, livestock,/wildlife activity, anthropogenic influences, etc.) and procedures are documented in writing. DD Science undertakes the sampling and records field conditions on the sampling record including a column covering weather, field observations, etc.

Monitoring is conducted at frequencies adequate to characterise the medium being monitored and to identify changes in a timely manner.

The surface water monitoring is undertaken on a monthly basis. The groundwater samples are undertaken on a quarterly basis. The Plant calculates the daily average WAD cyanide from the WAD1000-S online readings.

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Principle 5 – Decommissioning

Protect Communities and the Environment from Cyanide Through Development and Implementation of Decommissioning Plans for Cyanide Facilities.

Standard of practice 5.1: Plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife, livestock, and the environment.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 5.1**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 5.1; to plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife and livestock.

The operation has developed written procedures to effectively decommission cyanide facilities at the cessation of operations.

The auditors observed *CN-ENV-04 Standard Procedure for Demolition of Cyanide Facilities*, dated Oct 2023. This Procedure adequately addresses decommissioning, which is that aspect of closure that addresses the cyanide remaining on site upon cessation of production activities and prepares the site for its closure and post closure period.

The Plan includes an implementation schedule detailing the activities to be undertaken for the decommissioning and how long each activity will take starting from Day 1 of the decommissioning process.

The operation reviews its decommissioning procedures for cyanide facilities and revise them as needed every two years.

Standard of practice 5.2: Establish a financial assurance mechanism capable of fully funding cyanide related decommissioning activities.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 5.2**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 5.2; to establish an assurance mechanism capable of fully funding cyanide related decommissioning activities.

The operation has developed an estimate of the cost to fully fund third party implementation of the cyanide related decommissioning measures identified in the site decommissioning plan.

The auditors observed the closure cost detailed estimate including a line item for cyanide decommissioning undertaken by WSP.

Determination of the 2022 closure costs for the Kloof Operations dated Jan 2023 included the Total Plant Demolition estimate and Kloof 2 Plant cyanide decommissioning line item. The cost estimates are reviewed annually.

The operation has established a financial mechanism approved by the applicable jurisdiction to cover the estimated costs for cyanide related decommissioning activities as identified in the decommissioning plan. It is a legal requirement that financial estimate for decommissioning must be fully funded by the mine.

It was confirmed that the Kloof Trust Fund (KP1 and KP2), which is part of the Sibanye Trust Fund has sufficient funds to cover the decommissioning costs. The Trust Fund documentation is signed off by external accountants. The auditors observed the submission letter to the Department of Mineral Resources and Energy (DMRE) detailing the financial provision provided in accordance with the legal requirements.

Principle 6 – Worker Safety

Protect Workers' Health and Safety from Exposure to Cyanide.

Standard of practice 6.1: Identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce and control them.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 6.1**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 6.1 to identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce and control them.

The operation has developed procedures describing how cyanide-related tasks such as unloading, operations, entry into confined spaces, and equipment decontamination prior to maintenance should be conducted to minimise worker exposure including the following.

MET.2.3C-SPG Offload Sodium Cyanide into Bulk Storage Facility, dated 1 April 2021 includes PPE Section 4.3 Inspect and dress up in appropriate compulsory PPE.

MET.2.3D-SPG Perform Buddy Duties and Responsibilities dated October 2019. The procedure describes the role and responsibilities of the Buddy.

MET-2.3D SPG22 Decontaminate Equipment and Components For Reagent And Process Strength Cyanide And Slime, dated August 2020.

MET-2.3C SPG19 Maintenance on Sodium Cyanide Pipelines, dated September 2020.

MET2.3D SPG8 Procedure for Entering and Working In Confined Spaces, dated November 2019. Use is made of permit books including confined space work permit, special work permit, and hot work permit.

MET.2.3D SPG7 Standard Procedure Obtain Permit to Work, dated January 2020.

The procedures require, where necessary, the use of personal protective equipment and address pre-work inspections.

The auditors confirmed the relevant PPE and pre-task inspections are included in each individual procedure. In addition; a mini pre-task risk assessment system is used before any work is undertaken.

The operation solicits and actively considers worker input in developing and evaluating health and safety procedures including the following:

Daily safety toolbox meetings are undertaken for each shift. Weekly Wednesday Safety and Communication Meetings are undertaken with the auditors observing attendance records. The Life Saving Commitment booklets are issued to all employees. This includes critical health and safety behaviours and forms part of the meeting agenda, taking a different topic each week. Health and Safety Representative meetings are held monthly.

New or revised procedures are discussed and agreed to at all of these meetings.

Standard of practice 6.2: Operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 6.2**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 6.2 to operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.

The operation has determined the appropriate pH for limiting the evolution of HCN gas during production activities. The pH is measured at the thickener with a set point of 10.4. This is connected to the SCADA with low level alarms at 10.3, and high level alarms at 10.45.

There is a separate lime feed to Leach Tank 1 with a set point at 10.8, This is connected to the SCADA with low level alarms at 10.65, and high level alarms at 10.85, which activates an automatic stop. The alarms send automated SMSs. It was confirmed during an interview with the Instrumentation Technician that there are Interlocks with cyanide pumps in place stopping the cyanide dosing pumps at pH 10.4.

The operation has identified areas and activities where workers may be exposed to hydrogen cyanide gas or cyanide dust in excess of 10 parts per million (ppm) (11 mg/m3) on an instantaneous basis and 4.7 parts per million (ppm) 5 mg/m3) continuously over an 8-hour period, as cyanide and require use of appropriate personal protective equipment in these areas or when performing these activities.

The areas identified are at the Cyanide Storage Tanks, top of the Leach Tanks at the two cyanide Dosing Points and at the Residue Tank. The auditors observed a hotspot survey prepared by the Occupational Hygiene Department dated 10 February 2022.

The facility uses monitoring devices in process areas and for activities involving the management of cyanide to confirm that workers are not exposed to hydrogen cyanide gas or cyanide dust exceeding 10 parts per million (ppm) on an instantaneous basis and 4.7 parts per million (ppm) continuously over an 8-hour period, as cyanide.

Kloof 2 is equipped with four MSA Ultimax fixed cyanide monitor units: 2 MSA units at the top of Leach Tanks, 1 at the Cyanide Storage Tanks (1 Drager and 1 MSA) and 1 MSA unit at the Residue Tank. In addition, there is a Draeger fixed cyanide monitoring unit at the cyanide offloading area. The fixed monitor first alarm settings at the SCADA is at 4.7 ppm where the supervisor is informed, and the second alarm is at 10.0 ppm, where operations cease.

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Nine Drager personal monitors are used with the first alarm set at 1.90 ppm and the second alarm at 3.8 ppm. Similar to the fixed monitor readings the actions taken are, to inform the supervisor, and to cease operations, respectively. Daily gas readings are also taken at these locations.

Hydrogen cyanide monitoring equipment is maintained, tested and calibrated as directed by the manufacturer, and records are retained for at least three years. The fixed MSA monitors are calibrated by Fire Break. The Draeger fixed monitor is calibrated by Draeger. Calibration is undertaken every 6 months. The 9 personal monitors are calibrated by Draeger every 6 months.

Warning signs have been placed where cyanide is used advising workers that cyanide is present, of any necessary personal protective equipment that must be worn, and that smoking, open flames and eating and drinking are not allowed. The auditors verified during the site inspection that the relevant signs are placed at the CIL, the CIP, the Elution Area, the Residue Area, the Cyanide Storage Area, and the TSF.

It was confirmed during the site inspection that the Sasol SDS displayed at the liquid cyanide storage area included: colour: light to dark red due to the incorporation of a dye. The auditors observed during the site inspection that the colour of the liquid cyanide at the dosing 1 point is red due to the incorporation of the dye.

It was verified by the auditors during the site visit that emergency showers with eye wash fountains and dry powder fire extinguishers are installed at strategic locations on the Plant. Eye wash sprays are designed to diffuse water streams. They are maintained, inspected and tested on a regular basis.

SER.EE.2.4 SPG-32 Fire Extinguisher Standard Procedural Guideline dated Aug 2023 was observed detailing checklist and requiring a monthly inspection sticker as well as annual inspection sticker placed on the unit. Emergency Safety Shower are tested and inspected as part of the shiftly plant inspection.

Unloading, storage, and process tanks and piping containing cyanide are identified to alert workers of their contents, and the direction of cyanide flow in pipes is shown. It was verified by the auditors during the site visit that reagent strength cyanide HDPE pipes and the process solution pipelines are labelled indicating their contents and direction of flow.

Cyanide Dosing Points are labelled. Cyanide storage tanks are clearly marked and colour coded. The plant uses a colour coding standard for tanks and pipelines and employees are trained in the standard. The tailings pipeline is labelled with contents and direction of flow.

Safety Data Sheets, first aid procedures and other informational materials on cyanide safety is in the language of the workforce and available in areas where cyanide is managed. The official language for the mine is English with all notices and procedures being in English.

The Sasol SDS boards and cyanide first aid procedure are displayed at the cyanide unloading area, the top of the CIL and in the first aid room. The first aid procedure is also included in the emergency response plans.

Procedures are in place and being implemented to investigate and evaluate cyanide exposure incidents to determine if the operation’s programs and procedures to protect worker health and safety, and to respond to cyanide exposures, are adequate or need of

revising. This is detailed in *SER.2.4A SPG Reporting and Investigation and Administration of Accidents and Injured*, dated May 2023.

Investigation reports include details of the accident, personal details of the injured, training details, investigation team members, locality plan, observations during the inspection, sequence of events, findings, recommendation to prevent similar accidents, The investigation was signed off by the relevant Departmental Managers.

Standard of practice 6.3: Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 6.3**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 6.3; develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

The operation has water, oxygen, a resuscitator, antidote kits and a radio, telephone, alarm system or other means of communications or emergency notification readily available for use at cyanide unloading, and storage locations and elsewhere in the Plant.

A medical station adjacent to the cyanide offloading and storage area is available on site and a section dedicated to cyanide emergency and first aid is in place. The medical station has, 6 cyanide antidotes (TriPack) stored in a fridge, all within the use by date, 3 personal gas monitors, and cyanide PPE (including oxygen and CPR face mask). A decontamination bay is placed next to the medical station with eye wash and showers.

A telephone is available in the medical station for communication. Radios are used for emergency notification and cyanide emergency man down alarms are placed at strategic places on the Plant.

In addition to the medical station there is a first aid station at the top of the leach including PPE and medical oxygen. There are emergency showers and eye wash at; the medical station, the top of the CIL, the top of the CIP and at the Residue Tank.

The operation inspects its first aid equipment regularly to ensure that it is available when needed, and materials such as cyanide antidotes are stored and/or tested as directed by their manufacturer and replaced on a schedule to ensure that they will be effective when needed.

Chemicals 2.3C SPG2 - Offload Sodium Cyanide from Tanker into a Bulk Storage Facility dated April 2021 includes the Sodium Cyanide Offloading Checklist, which is undertaken prior to an offloading event. The checklist includes the emergency room checks for first aid equipment as well as the antidote for expiry. First aid equipment elsewhere in the Plant e.g. oxygen is included in the shiftly inspection undertaken in accordance with Procedure *MET.2.3C-SPG39 Inspect Plant Areas.*

The antidote kits are ordered by the Plant from Fountain Hospital. The kits are inspected daily for expiry and ordered a month before expiry to ensure the delivery in time before expiry. The administration of cyanide antidote is undertaken by Netcare 911 paramedics or doctors at the Fountain Hospital.

The operation has developed specific written emergency response *MET2.3C-ERP Emergency Response Plan - Sodium Cyanide,* dated September 2023 to respond to cyanide exposures. Use of cyanide antidotes and first aid measures for cyanide exposure is described in the *2.3C SPG48 Cyanide First Aid Protocol Metallurgical Plants.* The procedure details the necessary response to cyanide exposure through ingestion, inhalation, and absorption through the skin and eyes.

The operation has its own on-site capability to provide first aid or medical assistance to workers exposed to cyanide. A fully equipped medical station is situated adjacent to the cyanide offloading area. This is used to stabilise patients until an ambulance arrives. A dedicated trained Emergency Response Team (ERT) is in place on every shift made up of 5 members and the Supervisor. Shift teams are trained in first aid cyanide treatment.

Netcare 911 is contracted by Sibanye for the provision of paramedic and ambulance services. Primary response is from the Plant ERT with Netcare providing paramedical service and transport to the Fountain Hospital.

The operation has developed procedures to transport workers exposed to cyanide to locally available qualified off-site medical facilities. Exposed workers will be transported from the site by Netcare 911 ambulance to the Fountain Hospital.

MET2.3C-ERP Emergency Response Plan - Sodium Cyanide, dated September 2023 under Section 6.6. Duties of the Protection services states that the Plant security access gate is opened for the direct vehicle entry of the ambulance. Netcare 911 will transport all cyanide patients to the nearest equipped facility based on a clinical assessment of the patient. Fountain Hospital is 17.2 km away.

The operation has informed local medical facilities of the potential need to treat patients for cyanide exposure, and the operation has assured itself that the medical facility has adequate, qualified staff, equipment and expertise to respond to cyanide exposures.

Fountain Hospital is fully equipped to handle cyanide patients. This was confirmed during a visit to the Hospital by the Mine Health Department Representative. The Hospital is equipped with; a washing bay, 3 showers., and cyanide antidotes (TriPac) in addition to the usual facilities at a fully equipped hospital that can treat accident and emergency patients.

It was confirmed that the hospital has its own standard procedures for treating cyanide patients - *Procedure AHC-SOP-FPH-ER-02 Management of Patients with Cyanide Poisoning*. The Hospital conducts their own cyanide training and is also equipped with their own cyanide related PPE.

The auditors observed the contract between Sibanye and Netcare 911 for the provision of emergency medical services dated 14 October 2022.

Principle 7 – Emergency Response

Protect Communities and the Environment Through the Development of Emergency Response Strategies and Capabilities.

Standard of practice 7.1: Prepare detailed emergency response plans for potential cyanide releases.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 7.1**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 7.1; prepare detailed emergency response plans for potential cyanide releases. The operation developed Emergency Response Plans to address potential accidental releases of cyanide and cyanide exposure incidents. These include the following.

The operation has developed an Emergency Response Plan to address potential accidental releases of cyanide and cyanide exposure incidents including the *MET2.3C-ERP Emergency Response Plan - Sodium Cyanide* - dated September 2023 (the Plan)

The Plan considers the potential cyanide failure scenarios appropriate for its site-specific environmental and operating circumstances, including the following, as applicable.

Section 10 of the Plan details the Emergency Scenarios and references the relevant procedures that addresses the scenario as detailed below.

a) Catastrophic release of hydrogen cyanide from storage or process or regeneration facilities - *Met 2.3 C - SPG56 Respond to Catastrophic Release of HCN gas.*
b) Transportation accidents occurring on site or in close proximity to the operation - *Met 2.3 C - SPG57 Respond to Cyanide Tanker Incidents.*
c) Cyanide releases during unloading - *Met 2.3 C - SPG25 Cleanup Spillages - Reagent Strength Sodium Cyanide*
d) Cyanide releases during fires and explosions - *Met 2.3 C - SPG58 Respond to release of cyanide during fire and/ or explosion*
e) Pipe, valve and tank ruptures - *Met 2.3 C - SPG25 Cleanup Spillages - Reagent Strength Sodium Cyanide, and - Met 2.3 C - SPG26 Cleanup Spillages - Slimes and Carbon Containing Process Strength Sodium Cyanide*
f) Overtopping of ponds and impoundments - *EP-ENV-02 Emergency Preparedness And Response Procedure For Environmental Incidents And Accidents, and - MET2 3CSP59 Cyanide Water Sampling And Analyses*

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g) Power outages and pump failures - *Met 2.3 D3 - SPG60 Respond to Power Outages and Pump Failures*

h) Uncontrolled seepage - *EP-ENV-02 Emergency Preparedness And Response Procedure For Environmental Incidents And Accidents, and - MET2 3CSP59 Cyanide Water Sampling And Analyses.*

i) Failure of cyanide treatment, destruction or recovery systems - there are no cyanide treatment or destruction systems in place.

j) Failure of tailings impoundments, heap leach facilities and other cyanide facilities - *EP-ENV-02 Emergency Preparedness And Response Procedure For Environmental Incidents And Accidents , and - 2.3A COP Mandatory Code of Practice for Residue Deposits.*

The planning for response to transportation related emergencies considered the transportation route, physical and chemical form of the cyanide, method of transport (e.g. rail, truck), the condition of the road or railway, and the design of the transport vehicle (e.g., single or double walled, top or bottom unloading including the following procedures.

- *Met 2.3 C - SPG57 Respond to Cyanide Tanker Incidents;*
- *Met 2.3 D - SPG53 Emergency Communication;*
- *Sasol Emergency Call Centre Process for Transport and Off-Site Incidents; and*
- *Sasol Polymers Chlor Vinyls Business Emergency Response Protocol.*

The liquid cyanide transport has been undertaken by Tanker Services since July 2011 and they are responsible for transportation related cyanide emergencies in accordance with their certification to the Code.

The Emergency Response Plans describe the following actions and reference the relevant procedures as detailed below.

a) specific response actions, as appropriate for the anticipated emergency situations, such as clearing site personnel and potentially affected communities from the area of exposure.

Clearing of site personnel is described in *2.3D SPG61 Emergency Evacuation in Plant*

Evacuation of potentially affected communities will be undertaken by outside responders (Local Police) as described in *Met-Emergency Response Plan 2.3D SPG54 for Outside Response Agencies.*

b) use of cyanide antidotes and first aid measures for cyanide exposure.

Use of cyanide antidotes and first aid measures for cyanide exposure is described in the *2.3C SPG48 Cyanide First Aid Protocol Metallurgical Plants*

c) control of releases at their source.

d) containment, assessment, mitigation and future prevention of releases.

Control of releases at their source, containment, assessment, mitigation and future prevention of releases are described in *Cleanup Spillages - Reagent Strength Sodium Cyanide Met 2.3 C - SPG25,* and *Met 2.3 C - SPG26 Cleanup Spillages - Slimes and Carbon Containing Process Strength Sodium Cyanide.*

Standard of practice 7.2: Involve site personnel and stakeholders in the planning process.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 7.2**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 7.2; involve site personnel and stakeholders in the planning process.

The operation has involved its workforce, stakeholders, potentially affected communities, and identified external entities having emergency response roles in the cyanide emergency response planning process and in the process of keeping the Emergency Response Plan current, as detailed below.

The operation has also made potentially affected communities aware of the nature of their risks associated with accidental cyanide releases, and consulted with them directly or through community representatives regarding appropriate communications and response actions as detailed below.

MET2.3C-ERP Emergency Response Plan - Sodium Cyanide - dated September 2023 identifies medical facilities, police, and fire departments as external entities having emergency response roles. The Emergency Response Plan (ERP) states that "The stakeholders identified must be informed and their feedback obtained about any changes made to the ERP where it directly involves them.

Fountain Hospital was visited by the Mine Health Department Representative in 2023 to discuss the capabilities of the hospital and the cyanide emergency response planning process (personal communication). It was confirmed that the hospital has its own standard procedures for treating cyanide patients - *Procedure AHC-SOP-FPH-ER-02 Management of Patients with Cyanide Poisoning*. The Hospital conducts their own cyanide training and is also equipped with their own cyanide related PPE.

There was a communication to Sibanye gold operations employees stating that Netcare 911 has been appointed as a new service provider for emergency medical services (EMS). The contract between Sibanye and Netcare 911 for the provision of emergency medical services came in to force on 14 October 2022. Netcare 911 is involved in the mock emergency drills.

Meetings with communities was undertaken on dated 17 Oct 2022 with the minutes and attendance being recorded. Discussions included questions and answers. Any relevant information from meetings such as this is used in the emergency response planning process, to keep the Emergency Response Plan current, and to make potentially affected communities aware of the nature of their risks associated with accidental cyanide releases, and highlight appropriate communications and response actions.

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A media briefing document for radio interviews for Gold FM dated 14 July 2023 was produced, which related to the TSF and emergency preparedness.

Engagement regarding the emergency response planning process includes planned meetings with the municipalities. These meeting include representatives from the police and fire departments. The auditors observed the schedule of meetings for 2023.

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Standard of practice 7.3: Designate appropriate personnel and commit necessary equipment and resources for emergency response.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 7.3**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 7.3 to designate appropriate personnel and commit necessary equipment and resources for emergency response.

The cyanide-related elements of the *MET2.3C-ERP Emergency Response Plan - Sodium Cyanide* - dated September 2023 (the Plan) includes the following.

a) Designate primary and alternate emergency response co-ordinators who have explicit authority to commit the resources necessary to implement the Plan. The Plan identifies the primary emergency response coordinator as the Metallurgical Manager. The alternate emergency response coordinator is identified as the Plant Manager. Both positions have the explicit authority to commit the resources necessary to implement the Plan.

b) Identify Emergency Response Teams. Plant Emergency Response Team (ERT) members are identified on notice boards within the Plant.

c) Require appropriate training for emergency responders. Training for ERT members is detailed on the Plant Training Matrix.

d) Include call-out procedures and 24-hour contact information for the co-ordinators and response team members. The Plan details the call out procedures under Section 6.4 Plant ERT Members Duties and Emergency Contact Information in Annexure B.

e) Specify the duties and responsibilities of the co-ordinators and team members. The Plan details the duties and responsibilities of the coordinators and ERT Members in Section 6.0 Emergency Team.

f) List emergency response equipment, including personal protection gear, available on-site. The Plan in Section 6.12 Emergency Cyanide Equipment lists the emergency response equipment available.

g) Include procedures to inspect emergency response equipment to ensure its availability. Each Station that contains emergency response equipment is inspected daily using the appropriate checklist as stated in the Plan Section 6.13.2 Inspection Procedure. The Cyanide Offloading checklist inspects the offloading area including the first aid room that is adjacent to the offloading area, prior to any offloading event. The auditors observed the Netcare 911 Ambulance Operational Readiness Check Vehicle BA12,

including external and internal checklists which includes medical equipment. Inspections are conducted shiftly.

h) Describe the role of external responders, medical facilities and communities in the emergency response procedures. The Plan in Section 6.14 details the Role of Outside Responders.

The operation has confirmed that external entities with roles and responsibilities identified in the Emergency Response Plan are aware of their involvement and are included as necessary in mock drills or implementation exercises.

MET2.3C-ERP Emergency Response Plan - Sodium Cyanide - dated September 2023 identifies medical facilities, police, and fire departments as external entities having emergency response roles.

Fountain Hospital was visited by the Mine Health Department Representative in 2023 to discuss the capabilities of the hospital and the cyanide emergency response planning process (personal communication). It was confirmed that the hospital has its own standard procedures for treating cyanide patients - *Procedure AHC-SOP-FPH-ER-02 Management of Patients with Cyanide Poisoning*. The Hospital conducts their own cyanide training and is also equipped with their own cyanide related PPE.

A note to Sibanye gold operations employees stating that Netcare 911 has been appointed as a new service provider for emergency medical services (EMS). The auditors observed the contract between Sibanye and Netcare 911 for the provision of emergency medical services dated 14 October 2022. Netcare 911 is involved in the mock drills.

Netcare 911 and the Fountain Hospital are involved in full chain drills. There was an emergency cyanide drill from the Plant to the Fountain Hospital on 6 October 2023.

The Police and Fire Department would be involved in any emergencies that occur outside the mine. They have not been involved with any mock drills to date. A disaster management committee is in place which includes the mine, the police and fire department, amongst others. It is the role of the municipality to co-ordinate the response to any disaster.

Standard of practice 7.4: Develop procedure for internal and external emergency notification and reporting.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 7.4**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 7.4 to develop procedures for internal and external emergency notification and reporting.

The Plan includes procedures and contact information for notifying management, regulatory agencies, external response providers and medical facilities of the cyanide emergency.

The Plan details the call out procedures under Section 6.0 Emergency Team for notifying management, regulatory agencies, external response providers and medical facilities of the cyanide emergency. Emergency contact information is in Annexure B.

The Plan includes procedures and contact information for notifying potentially affected communities of the cyanide related incident and any necessary response measures and for communication with the media.

The Plan Section 6.9 Media Liaison states that the Media Liaison Officer is the only authorised spokesperson authorised to deal with the Media. Communications with communities will be by the Community Engagement Department unless there is a threat to a beneficial water source and then the Sustainable Development Manager will immediately inform the relevant parties as described in Section 6.9 Media Liaison.

The Plan Annexure A, Notification of Significant Cyanide Incident to the International Cyanide Management Institute describes the procedure for notifying the ICMI of any significant cyanide incidents, as defined in the ICMI's Definitions and Acronyms document.

There have been no significant cyanide incidents to date.

Standard of practice 7.5: Incorporate remediation measures and monitoring elements into response plans and account for the additional hazards of using cyanide treatment chemicals.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 7.5**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 7.5 to incorporate remediation measures and monitoring elements into response plans and account for the additional hazards of using cyanide treatment chemicals.

The Plan describes specific remediation measures as appropriate for the likely cyanide release scenarios as detailed below.

a) Recovery or neutralisation of solutions or solids?

b) Decontamination of soils or other contaminated media?

c) Management and/or disposal of spill clean-up debris?

The necessary measures are described in the following procedures.

Met 2.3 C – SPG25 Clean up Spillages - Reagent Strength Sodium Cyanide.

Met 2.3 C – SPG26 Clean up Spillages - Slimes and Carbon Containing Process Strength Sodium Cyanide, dated October 2023.

This includes the clean-up of cyanide spills outside the plant perimeters to the TSF. All spillages are to be cleaned up physically without the use of chemicals. The total cyanide must be less than 0.5 mg/l total cyanide in the cleaned-up area for the removal of contaminated material to be complete. The contaminated material will be assessed to determine where it can be put back into the process.

d) Provision of an alternate drinking water supply?

The Plan Section 6.9 Media Liaison states that if there is a threat to a beneficial water source the Sustainable Development Manager will immediately inform the relevant parties who will arrange to supply potable drinking water.

MET2.3C-ERP Emergency Response Plan - Sodium Cyanide - dated September 2023, Section 9.2 Surface Water Protection states that chemicals are not to be used to neutralise cyanide spilled into surface water. Sodium hypochlorite, ferrous sulphate, and hydrogen peroxide are not kept on site and therefore are not available to treat any spills.

MET2.3C-ERP Emergency Response Plan - Sodium Cyanide - dated September 2023, Section 9.3 Environmental Monitoring states that the potential need for monitoring is

identified in *2.3C SPG55 Cyanide Water Sampling and Analysis Procedure,* which includes sampling methodologies and parameters. The auditors observed the map showing the various sampling locations for surface water and groundwater, which could be used as possible sampling locations in the event of a release.

Standard of Practice 7.6: Periodically evaluate response procedures and capabilities and revise them as needed.

The operation is

☒ **in full compliance with**

☐ **in substantial compliance with Standard of Practice 7.6**

☐ **not in compliance with**

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 7.6; to periodically evaluate response procedures and capabilities and revise them as needed.

The operation reviews and evaluates the cyanide related elements of its Emergency Response Plan for adequacy on a regular basis and as necessary as necessary, following mock drills and following an actual cyanide-related emergency requiring its implementation.

MET2.3C-ERP Emergency Response Plan - Sodium Cyanide - dated September 2023, Section 4.0 Evaluation of Emergency Response Plan for Cyanide states that the Plan will be reviewed; on an annual basis, if any changes occur, after each cyanide related emergency, or after each emergency drill where deficiencies in the Plan were identified.

Mock cyanide emergency drills are conducted periodically. The emergency drill program includes the requirement to conduct drills simulating cyanide release scenarios appropriate for the operation. The ERT members are included as part of the emergency drill. The Fountain Hospital is part of the emergency drill process with cyanide casualties being taken directly to the Hospital by Netcare 911.

The police and fire departments, do not take part in the mock emergency drills. An emergency that affects communities outside the mine will be addressed by the Municipality Disaster Management Committee who will direct the police and fire departments.

MET2.3C-ERP Emergency Response Plan - Sodium Cyanide - dated September 2023, Section 7.0 Emergency Exercises details a schedule for mock drills must be created.

The following were observed by the auditors:

The mock drill schedule for 2023, with one drill per quarter

Mandown drill due to the presence of HCN gas with the casualty taken from the Plant to the Fountain Hospital on 6 October 2023. The emergency cyanide drill report included the following:

- Photographs of the drill;

- A timeline table including events and time. This showed that medical oxygen was administered within 3 minutes;

- Learning points include shortfalls; and

- Attendance register.

Emergency evacuation of the TSF due to a call from the Plant on 08 December 2022 stating unusually high WAD cyanide levels in the tailings.

A mock drill was undertaken on the 27 October 2023 involving a spill of tailings from the pipeline to the TSF. The drill report identified the relevant learning points.

No actual cyanide related incidents requiring the implementation of the Emergency Response Plan, or mock drills identifying deficiencies in the Plan have occurred.

Principle 8 – Training

Train Workers and Emergency Response Personnel to Manage Cyanide in a Safe and Environmentally Protective Manner.

Standard of Practice 8.1: Train workers to understand the hazards associated with cyanide use.

The operation is

☒ **in full compliance with**

☐ **in substantial compliance with** **Standard of Practice 8.1**

☐ **not in compliance with**

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 8.1; train workers to understand the hazards associated with cyanide use.

The operation trains all personnel who may encounter cyanide in cyanide hazard recognition.

All Plant and TSF staff receive induction training including cyanide awareness and cyanide first aid training. This training also addresses cyanide hazards such as cyanide materials present at the operation, the health effects of cyanide, and the symptoms of cyanide exposure. The cyanide first aid training includes what to do in the event of a cyanide exposure. An 80% pass mark is required.

Asset protection (security) receive the induction including cyanide awareness.

Permanent Contractor staff receive induction training including cyanide awareness. The records are kept of the tests and attendance registers, and are recorded in a separate training matrix.

All TSF staff are trained in cyanide awareness and cyanide first aid by the Plant.

Cyanide induction refresher training is conducted when returning from annual leave. Staff whose training is overdue because their annual leave has been delayed can be blocked from entry at the gate after 18 months.

The Training Matrix records the induction training and when it is updated via the refresher.

Training records are retained in hard copy for each person for the life of mine. The records are kept in hard copy and on the Sibanye Stillwater Academy Simplexity system that tracks the training undertaken at the Academy.

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Standard of practice 8.2: Train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 8.2**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 8.2; Train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.

The operation trains workers to perform their normal production tasks, including unloading, production and maintenance, with minimum risk to worker health and safety in a manner that prevents unplanned cyanide releases.

Practical training starts when the person is put on shift and receives on the job training under the supervision of the Team Supervisor. Standard Procedure Guidelines (SPG) are used for the task training. The training elements necessary for each job involving cyanide management are identified in the SPGs used as training material. All Plant operating personnel are trained on all SPG's required to perform jobs involving cyanide management.

The Supervisor conducts a Planned Task Observations (PTO) and a Task Risk Assessment (TRA) is used to determine if the operator is competent. If gaps are found additional training is provided. Once found competent using the PTO by the Supervisor the operator will be allowed to work un-supervised.

Work task refresher training is provided as required depending on the outcome of the PTOs, such that if the tasks are being undertaken adequately no refresher training is required.

The training matrix includes level 2 training at the Academy e.g. Leach, Elution, CIP, and Milling. Engineering training is undertaken at No. 7 Shaft and is included in the training matrix.

The Simplexity software program at the Academy is linked to the training matrices and records of all training done at the Academy. The program includes external emergency response training (Terisa Cierenberg) including cyanide emergency response.

The operation evaluates the effectiveness of cyanide training by testing, observation or other means. PTO's are conducted to determine competency before operating a shift or appointed to as a cyanide Offloader. PTO's are conducted as per a formal program (the target is two PTO's a week). Training at the TSF is based on a practical sessions by the SSMS using the TSF procedures as guidelines. Determining competence is through PTOs. The auditors observed the file of PTOs for 2023.

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Task training related to cyanide management activities is provided by an appropriately qualified person. Task training is performed by the Plant Trainer S Sangoni. S Sangoni has completed the Assessor Learning Programme 29 June 2022, together with 13 years Gold Plant experience. On the job training is undertaken by the experienced Plant Supervisors.

Emergency Response training is undertaken by Teresa Cierenberg registered with the Health Professions Council of South Africa (HPCSA), with 16 years' experience in cyanide emergency training and procedures. She is also a qualified Intermediate Life Support Paramedic. Training for the TSF is undertaken by Aubrey Fourie of SSMS, with 20 years' experience on TSFs.

All workers are trained prior to working with cyanide.

All Plant and TSF staff receive induction training including cyanide awareness training. An 80% pass mark is required. Asset protection (security) receive the induction including cyanide awareness. Permanent Contractor staff receive induction including cyanide awareness. The records are kept of the tests and attendance registers, included in separate training matrix. All TSF staff are trained in cyanide awareness and cyanide first aid by the Plant.

The operation trains workers to perform their normal tasks, including unloading, production, tailings, and maintenance personnel prior to working with cyanide.

Refresher training on cyanide management is provided to ensure that employees continue to perform their jobs in a safe and environmentally protective manner. Cyanide induction refresher training is conducted when returning from annual leave. Staff whose training is overdue because their annual leave has been delayed can be blocked from entry at the gate after 18 months.

Records are retained throughout an individual's employment documenting the training they have received and including the names of the employee and the trainer, the date of training, the topics covered, and how the employee demonstrated an understanding of the training materials.

Standard of practice 8.3: Train appropriate workers and personnel to respond to worker exposure and environmental releases of cyanide.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 8.3**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 8.3; train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.

All cyanide unloading, production and maintenance personnel are trained in the procedures to be followed if cyanide is released, including decontamination and first aid procedures.

All Plant employees including cyanide unloading, production and maintenance personnel receive cyanide awareness, emergency response (including procedures to be followed in the event of a cyanide release) and preparedness training including cyanide first aid and decontamination procedures, as observed in the training matrix by the auditors.

Emergency Response Coordinators and members of the ERT are trained in the procedures included in the Emergency Response Plan regarding cyanide, including the use of necessary response equipment.

A dedicated trained ERT is in place on every shift, which is made up of 5 members from the shift and the Supervisor.

All Plant employees receive cyanide awareness, emergency response and preparedness training as part of the Emergency Response Plan including cyanide first aid, decontamination procedures, as observed in the training matrix by the auditors, and the use of necessary response equipment.

The operation has made external responders, such as local fire brigades and emergency medical services familiar with those elements of the Emergency Response Plan related to cyanide.

Fountain Hospital was visited by the Mine Health Department Representative in 2023 to discuss the capabilities of the hospital and the cyanide emergency response planning process (personal communication). It was confirmed that the hospital has its own standard procedures for treating cyanide patients - *Procedure AHC-SOP-FPH-ER-02 Management of Patients with Cyanide Poisoning*. The Hospital conducts their own cyanide training and is also equipped with their own cyanide related PPE.

Netcare 911 and the Fountain Hospital are involved in full chain drills. The auditors observed an emergency cyanide drill report from the Plant to the Fountain Hospital on 6 October 2023.

The Police and Fire Department would only be involved in any emergencies that occur outside the mine. They have not been involved with any mock drills to date. A disaster management committee is in place which includes the mine, the police and fire department, amongst others. It is the role of the municipality to co-ordinate the response to any disaster.

Refresher training for response to cyanide exposures and releases is regularly conducted.

Cyanide induction refresher training is conducted when returning from annual leave. Staff overdue can be blocked from entry at the gate after 18 Months.

The auditors observed the Training Matrix and confirmed that the refresher training was being undertaken.

Records are retained documenting the cyanide emergency response training, including the names of the employee and the trainer, the date of training, the topics covered, and how the employee demonstrated an understanding of the training materials.

The auditors sampled the hardcopies of Plant training records and Sibanye Stillwater Academy Simplexity system that tracks the training undertaken at the Academy.

Principle 9 – Dialogue and Disclosure

Engage in Public Consultation and Disclosure.

Standard of practice 9.1: Promote dialogue with stakeholders regarding cyanide management and responsibility address identified concerns.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 9.1**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 9.1; provide stakeholders with the opportunity to communicate issues of concern.

engage with them regarding their concerns. A stakeholder forum is in place and forms the basis of dialogue with stakeholders and communities.

Sibanye uses a position paper on cyanide awareness for inclusion in the communication strategy (this includes, environment, safety etc.). The operation has a stakeholder meeting schedule for 2023, which included municipalities, schools, and communities.

Presentations are provided at local schools. A presentation regarding the TSF and emergency preparedness is used during stakeholder meetings. Presentations were given at Greenspark Primary School and Letsasing Combined School on the 17 May 2023.

Meetings with local communities were undertaken on 17 October 2022. Discussions, recommendations and an attendance register were recorded including questions and answers.

The operation created a briefing document for radio interviews for Gold FM dated 14 July 2023 regarding the TSF and emergency preparedness. This interview was in Afrikaans and English.

The operation has created a poster produced by the Plant that is handed out to communities. The poster includes; a process flow diagram, information on what is cyanide, uses of cyanide, how cyanide is used on the Plant, risks of using cyanide, and ICMI information. An emergency contact number is also included.

A meeting was undertaken on the 30 August 2022 with the Kromdraai River Catchment Forum with minutes including the attendance register and agenda being produced.

A disaster management committee is in place which includes the mine, the police and fire department, amongst others. It is the role of the municipality to co-ordinate the response to

any disaster. There is a Memorandum of Understanding with regards to the formation of this committee. The first meeting was scheduled for 12 October 2023.

Standard of practice 9.2: Make appropriate operational and environmental information regarding cyanide available to stakeholders.

The operation is

☒ **in full compliance with**

☐ in substantial compliance with **Standard of Practice 9.2**

☐ not in compliance with

Summarise the basis for the findings/deficiencies identified.

The operation is in full compliance with Standard of Practice 9.2 to make appropriate operational and environmental information regarding cyanide available to stakeholders.

The operation has developed written descriptions of how their activities are conducted and how cyanide is managed, and these descriptions are available to communities and other stakeholders.

The operation has created a poster produced by the Plant that is handed out to communities. The poster includes; a process flow diagram, information on what is cyanide, uses of cyanide, how cyanide is used on the Plant, risks of using cyanide, and ICMI information. An emergency contact number is also included.

The operation has disseminated information on cyanide in verbal form where a significant percentage of the local population is illiterate.

Presentations are provided to schools and communities as detailed in 9.1. These are presented verbally in the local language.

The operation makes information publicly available on confirmed cyanide release or exposure incidents including the following:

a) Cyanide exposure resulting in hospitalisation or fatality.

b) Cyanide releases off the mine site requiring response or remediation.

c) Cyanide releases on or off the mine site resulting in significant adverse effects to health or the environment.

d) Cyanide releases on or off the mine site requiring reporting under applicable regulations.

e) Releases that are or that cause applicable limits for cyanide to be exceeded.

Any cyanide releases or exposure incidents are reported to the Department of Mineral Resources and Energy and the Department of Water and Sanitation as required by the operation's authorisations, who in turn selectively report on repeated or critical incidents.

Any incidents are reported in the Annual Integrated Report that is available on the Sibanye Stillwater website The auditors observed the following in the 2022 Report.

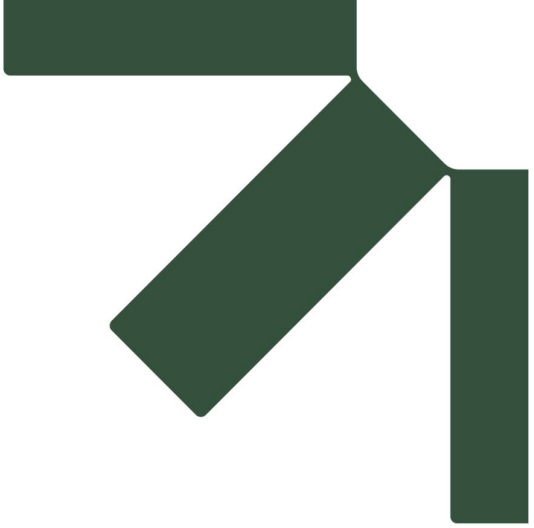
Kloof 2 Gold Plant
Name of Facility

Signature of Lead Auditor

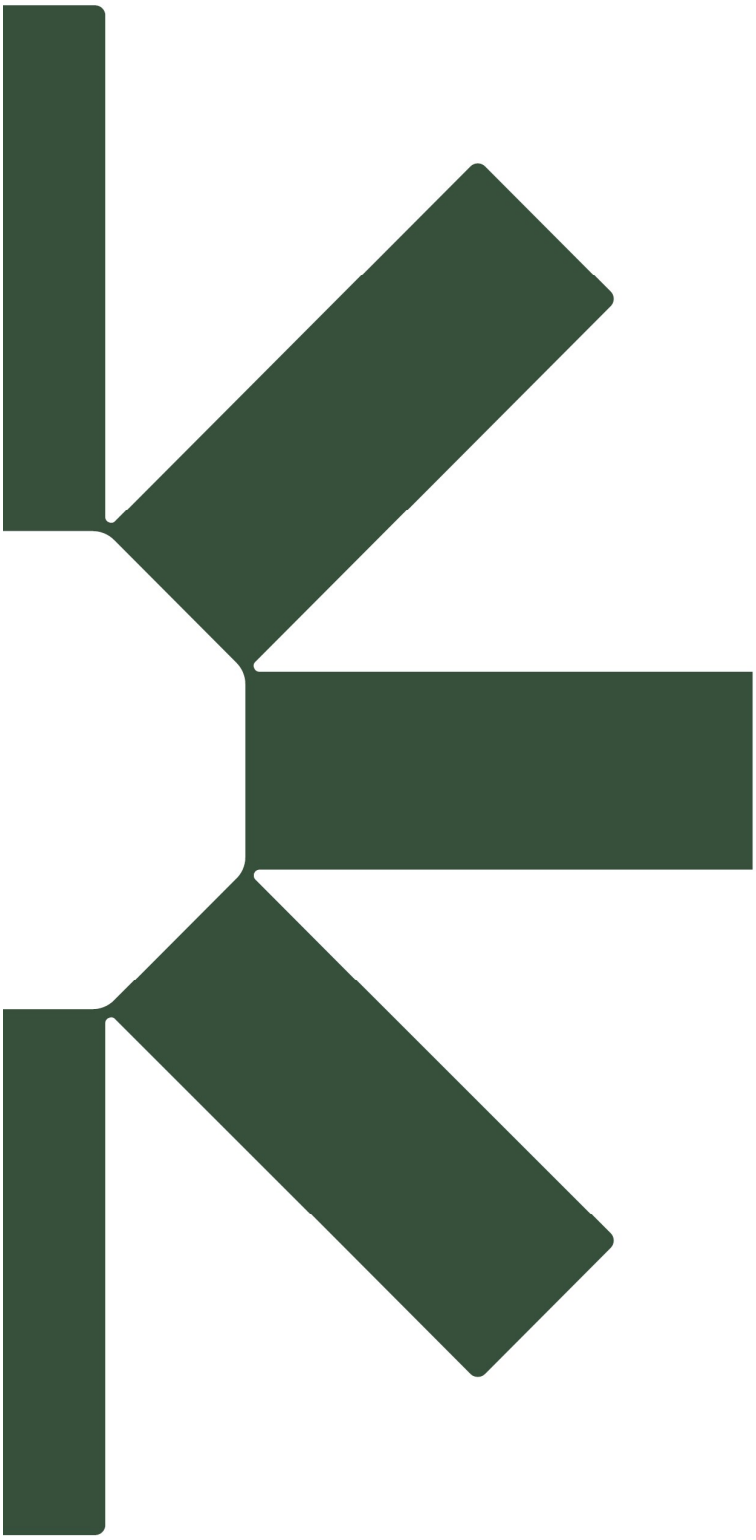
May 2024
Date

- environmental incidents that occurred in 2022, which included an incident from the Beatrix Mine (overflow of RWDs) and the Stillwater Mine (spillage of tailings)

- safety statistics and reporting on incidents including fatalities that occurred in 2022. Cyanide exposure incidents would be included in the report.



SLR



Making Sustainability Happen