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St Ives Gold Mining Company

International Cyanide Management  
Code

Summary Audit Report

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GBS Consulting

11 February 2025

ABN: 69926 496 759

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## Audit Details

Operation: St Ives Gold Mine (SIGM)  
Name of Mine Owner: Goldfields Australia Limited  
Company: St Ives Gold Mining Company (Pty)  
Responsible Person: Paul Miskell, Processing Manager  
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Audit Period Commencement: 23 February 2022

Dates of Audit Site Visit: 26 – 30 August 2024 inclusive

## Description of Operation

St Ives Gold Mining Company Pty Ltd (SIGM) is a wholly owned subsidiary of Gold Fields Ltd. The administration area is located approximately 20 kilometers (km) south-east of the township of Kambalda near Lake Lefroy. The mine plant was constructed and commissioned in 2004. SIGM first became certified under the International Cyanide Management Code (Code) on 3 June 2009.

The operation processes approximately 4.8 million tonnes of ore per year through both open-pit and underground mining operations. The milling and crushing circuit includes primary and secondary gyratory crushers, semi-autonomous grinding (SAG) mill and a fine grinding mill. The processing and gold recovery processes consist of primary Knelson concentrators, an intensive leach reactor, 5 Carbon in Leach (CIL) tanks (3400 m<sup>3</sup>) with associated services, instruments and 30% sodium cyanide solution addition, 6 carbon adsorption tanks (200 m<sup>3</sup>) with associated services, elution circuit, electrowinning cells a tailings thickener and a cyanide destruction plant. Cyanide is delivered only as a 30% sodium cyanide solution and is stored in two 165 m<sup>3</sup> cyanide storage tanks. Solid cyanide is not used on-site for processing at SIGM and no cyanide mixing facilities exist. Cyanide solutions are supplied to SIGM by Australian Gold Reagents (AGR) and transported in isotainers by a combination of road and rail via its Australian Supply Chain. All cyanide solutions supplied by AGR are produced at its Kwinana production facility in Western Australian.

The active tailings storage facility is the in-pit Leviathan Tailings Storage Facility (TSF) which still has a number of years of storage capacity remaining. Tails return water is recovered from the TSF via a decant system which pumps the water to the processing plant. There are four inactive paddock TSFs (TSF 1 to 4) and the inactive North Orchin in-pit TSF has been closed and almost completely back-filled. TSF 1 is used as a source of tailings for the three past plants operated at SIGM. The heap leach facilities are inactive and have not received any process solutions within the audit period.

Prior to initial Code certification SIGM commissioned a study to determine and implement the processes to achieve certification with hyper-salinity (> 50,000 mg/L Total Dissolved Solids (TDS)) as an alternative measure to meet the objective of Standard of Practice 4.4 even with tailings discharge of above 50 mg/L Weak Acid Dissociable (WAD) cyanide. This study, Minerals & Energy Research Institute of Western Australia Project M398 - Cyanide Ecotoxicity at Hypersaline Gold Operations (M398) presented the argument that hypersalinity formed a protective mechanism against wildlife cyanosis at SIGM and other hypersaline sites. The study and peer review reports determined site specific operating parameters for SIGM which form the alternative Code compliance limits within the TSF for the operation.

Newly constructed and modified cyanide facilities during this audit period consisted of:

- Move and upgrade of the InLine Leach Reactor, and
- Installation of a Barren Electrolyte Tank.

St Ives Gold Mine

Name of Mine



Signature of Lead Auditor

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## Auditor's Finding

This operation is:

☐ in full compliance

☒ in substantial compliance

☐ not in compliance

with the International Cyanide Management Code (Code).

This operation has experienced compliance issues during the previous three-year audit cycle which are discussed in this report under Standards of Practice (SOP) 4.4 and 7.3.

This operation was found in substantial compliance with the Cyanide Code based on the audit findings in this report under Standards of Practice (SOP) 4.4 and 7.3.

No significant cyanide incidents or cyanide exposure incidents have occurred during the recertification period.

## Auditor Information

Audit Company: GBS Consulting Pty Ltd

Primary contact: Greg Smith

Email: [gregorsmith@internode.on.net](mailto:gregorsmith@internode.on.net)

**Lead Auditor: Gregory Smith**



11 February 25

Signature of Lead Auditor

Date

**Technical Auditor: Celeste Ellice**



11 February 25

Signature of Technical  
Auditor

Date

St Ives Gold Mine

Name of Mine



Signature of Lead Auditor

11 February 2025

Date

I attest that I meet the criteria for knowledge, experience and conflict of interest for a Cyanide Code Certification Audit Lead Auditor, as 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 Institute for Code Auditors.

I attest that this Summary Audit Report accurately describes the findings of the certification audit. I further attest that the certification 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.

St Ives Gold Mine



11 February 2025

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Name of Facility

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Signature of Lead Auditor

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Date

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St Ives Gold Mine



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11 February 2025

Name of Mine

Signature of Lead Auditor

Date

## 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 ☐ not in compliance with Standard of Practice 1.1

#### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with Standard of Practice 1.1: 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.

SIGM purchased all sodium cyanide solutions during the audit period from Australian Gold Reagents (AGR). All sodium cyanide solutions purchased during the audit period were manufactured at the Kwinana sodium cyanide production plant operated by AGR. AGR's Kwinana Facility was recertified in full compliance with the International Cyanide Management Code (Code) on 22 September 2020 and then recertified again on 28 August 2023.

The Sodium Cyanide Solution Supply Agreement between AGR and Goldfields Australia Limited; was signed on 10 June 2024. The Commencement Date of the Supply Agreement was nominated as 1 April 2024 for a period of five years. The previous variation to the signed contract between AGR and Goldfields Australia Limited was initially signed on 23 December 2016 with a Commencement Date of 1 January 2017 for a period of five years signed on 30 March 2017. A variation to the supply agreement contract is dated 30 April 2019 and extended the contract to 31 March 2024. Clause 15 of the current Sodium Cyanide Solution Supply Agreement states that AGR 'must at all times fully comply with the current ICMI International Cyanide Management Code'. Previous versions of the signed contract contained the same clause.

Cyanide delivery documents from the audit period were verified and all identify that the cyanide is delivered by AGR from their Kwinana Facility.

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## 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 ☐ not in compliance with Standard of Practice 2.1

#### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with 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 Sodium Cyanide Solution Supply Agreement between AGR and SIGM states that AGR is responsible for the transportation of Sodium Cyanide and the unloading of the Sodium Cyanide Solution at the Delivery Point. AGR supplies sodium cyanide solution to SIGM via their Australian Supply Chain which was re-certified as in compliance under the Code on 9 November 2022. Qube Bulk is listed as a transporter under AGRs Australian Supply Chain and was the only transporter used for all deliveries to SIGM in the audit period. Qube Bulk was re-certified in compliance with the Code on 3 February 2022.

SIGM has retained chain of custody records and other documentation identifying all transporters and supply chains responsible for transporting cyanide from the producer to the operation. Cyanide delivery dockets identify that the transport contractor/carrier was Qube Bulk Pty Ltd.

The Cyanide Supply Contract between AGR and SIGM requires that AGR must at all times comply with the then current ICMI Code for the production and transport of cyanide. This requirement includes responsibility for safety, security, release prevention, training, and emergency response during transport of cyanide.

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## Principle 3 | HANDLING AND STORAGE

*Protect workers and the environment during cyanide 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  
☐ not in compliance with

Standard of Practice 3.1

#### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with 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 SIGM cyanide unloading and storage facilities were designed and constructed in accordance with the Western Australian Dangerous Goods Act and Regulations, the cyanide producers' (AGR) specifications, and Australian Standard AS 4452 for the storage of toxic substances. The SIGM cyanide unloading and storage facilities were designed and built by the cyanide supplier (AGR) and have not changed since the previous audit.

SIGM does not use solid cyanide for processing and only liquid sodium cyanide is delivered and used for processing.

SIGM have retained a full set of drawings and all construction documentation and Quality Assurance / Quality Control (QA / QC) records of the cyanide unloading facilities and storage tank. This documentation is retained electronically on site and was verified on 28 August 2024.

The cyanide unloading facilities consist of an isotainer unloading bay sufficient for a single isotainer to be accessed from an unloading tower immediately above it. The unloading bay consists of a bunded concrete pad with rollover bunds located at the entrance and exit to minimise seepage and capture and contain any spilt liquid cyanide solutions or wash down solutions. The unloading pad has a drain into the cyanide storage area bund which can contain the volume of a full isotainer (22,000 litres). A sump pump is located in the sump to pump cyanide solutions to the leaching circuit. The unloading pad is inspected on a monthly basis by

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the processing department which includes integrity of the concrete pad and bunds. An annual audit of the cyanide unloading, and storage facilities is conducted by AGR which includes integrity of the concrete pad and bunding.

The cyanide storage tanks have a level sensor and transmitter for real time monitoring with a digital reading on the unloading facility as well as visual indicators on the tanks. The tank volume is also displayed in Supervisory Control and Data Acquisition (SCADA) system used in Mill Control on the reagents page. The SIGM Cyanide Delivery Work Instruction identifies that prior to commencement of unloading the spotter must check that the level in the storage tank to receive delivery has sufficient capacity to accept the delivery; the maximum level of both tanks to accept delivery must be at or below 80%). Each storage tank has a total capacity of 165 Kilolitres (KL) and each isotainer may contain up to 22 KL. If insufficient capacity the spotter must not allow unloading to take place. The cyanide delivery dockets require the recording of cyanide tank levels before and after delivery.

High and High-High alarms are configured on the SCADA system at 88 % and 95 % respectively. The high alarm is displayed on the SCADA system. The 95 % alarm is also accompanied by an audible alarm in the field. A manual air isolation valve is located at the spotter's hut in the event that the observer needs to stop the unloading process.

Testing of the high and high-high alarms is simulated on a quarterly basis during the 12 weekly Cyanide Bund Area Electrical Inspection. The Work Instruction states that 'Should there be a variation of more than 5 %, notify the leading hand or supervisor and a work request needs to be raised to carry out repairs.'

The cyanide storage tanks are located on a concrete pad within concrete bunding that can contain the volume of an isotainer. All secondary containments for the SIGM cyanide storage tanks are constructed of concrete that provides a competent barrier to leakage. The competency of the concrete is inspected during monthly reagent Planned General Inspections (PGIs) and during annual inspections by the cyanide supplier, AGR.

The cyanide unloading and storage facilities are located away from the administration area, plant offices and workshops in a separate locked compound within the processing plant. SIGM has a Cyanide Compound Access Procedure which requires an induction prior to entry and prevents unauthorised access.

The cyanide storage tanks are outside in an open-air environment which prevents build-up of hydrogen cyanide gas. The cyanide storage tanks have vents at the top of the tanks to prevent the build-up of HCN gas. Vent gases discharge into a water seal pot.

There are no surface waters nearby the cyanide unloading and storage facilities.

The cyanide storage tank is within the reagents area in a separated compound. It is adjacent to the lime storage facility which separates the cyanide storage compound from the acid storage facility and other non-compatible materials.

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The cyanide solution storage tank is located in a concrete bunded area which is sunk below ground level and sized to contain 100% of the volume of the storage tank, plus pipe drainback and a 1 in 100-year 72-hour rainfall event to ensure solutions do not overflow to other reagent storage areas.

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## Standard of Practice 3.2

*Operate unloading, storage and mixing facilities using inspections, preventive 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  
☐ not in compliance with

Standard of Practice 3.2

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with Standard of Practice 3.2: Operate unloading, storage and mixing facilities using inspections, preventive maintenance, and contingency plans to prevent or contain releases and control and respond to worker exposures.

SIGM uses only liquid sodium cyanide for processing, and no cyanide mixing facilities exist on site.

Cyanide solutions are delivered solely in isotainers which are not handled or stacked on site during the unloading process. The isotainers are removed from site following cyanide unloading. No other cyanide containers are handled by any other means during cyanide unloading.

Red carmosine dye is added to all sodium cyanide solutions by AGR prior to delivery to aid in the detection of uncontained cyanide solutions as required by the supply contract.

SIGM follows a Cyanide Unloading Work Instruction and requires that a Cyanide Unloading Checklist is completed prior to delivery to prevent exposures and releases during cyanide unloading. The Cyanide Unloading Work Instruction details the personal protective equipment and safety equipment required before commencing unloading. The tanker driver undertakes cyanide unloading in accordance with the AGR Sodium Cyanide Solution Isotainer Unloading at Mine Sites Procedure. They are required to wear appropriate personal protective equipment, face-shield goggles, chemical resistant boots, and gloves in addition to standard mine site PPE requirements of safety boots, long pants and shirts and a hard hat during cyanide unloading.

Completed Cyanide Unloading Checklists fastfield forms were verified for the audit period and found to be satisfactorily completed. These are stored electronically.

A SIGM plant operator is required to act as observer during cyanide unloading operations and is required to wear standard PPE, have an HCN monitor, a handheld radio and have additional PPE of chemical resistant gloves, goggles, face shield and cyanide mask with respirator in date within easy reach.

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The observer is not allowed to be on the unloading pad during operations and is required to observe the cyanide unloading from the air-conditioned spotter's hut. The observer is located next to the manual shut off valve to stop unloading in an emergency or if any unloading lines burst or start to leak or the storage tanks begin to overflow. An OxySok (oxygen resuscitator) is located in the cyanide spotters hut and full-face masks and canisters are located in the cyanide incident response equipment hut next to the cyanide spotter's hut.

The operation of all hoses, valves, and couplings for unloading liquid cyanide is described in the AGR Delivery and Unloading of Sodium Cyanide Procedure. The procedure requires the tanker driver to wash down the hose nozzles, couplings, any spills and drips on the isotainer and trailer; and wash down the unloading area prior to the tanker leaving site.

Both the *SIGM Cyanide Unloading Work Instruction* and *AGR Cyanide Unloading Procedure* require any cyanide spills to be cleaned up and hosed into the sump in a timely manner if required following unloading. Spills outside of a bunded area are managed in accordance with the *SIGM Cyanide Spill Ground Decontamination Work Instruction*.

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## 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 preventive maintenance procedures.*

The operation is ☒ in full compliance with Standard of Practice 4.1  
☐ in substantial compliance with  
☐ not in compliance with

#### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in Full COMPLIANCE with Standard of Practice 4.1: Implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventive maintenance procedures.

SIGM have developed written management and operating plans and procedures for cyanide facilities including unloading and storage facilities, the leach plant, and tailings impoundments. No cyanide mixing facilities or cyanide regeneration and disposal systems exist at SIGM. SIGM has heap leach pads, however these are not active and have not been used during the audit period.

SIGM has an overarching Cyanide Management Plan which guides cyanide management and use. A Controlled Documents on-line environment is used to manage documentation including plans, manuals, procedures, work instructions, area inspections and regulations related to mineral processing and ensure current versions are accessible as listed above. Procedures and Manuals have been developed and implemented for all areas of operation that contain process solutions with 0.5mg/L WAD cyanide or higher including cyanide unloading and storage; Leaching and adsorption; Elution; Tailings pipelines and pumps; Tailings Storage Facilities; and Process water storages.

SIGM continues to implement 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, including inspections and preventive maintenance activities. Key plans and procedures include the following; Cyanide Management

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Plan; Lefroy Tailings Management Plan; Preventative Maintenance Manual; Cyanide Unloading/Delivery Work Instruction; Managing HCN Gas Procedure; Lefroy Mill Operating Specifications; Cyanide Spill Ground Contamination Work Instruction; Operator Housekeeping Requirements Work Instruction; Respiratory Protection for HCN Gas Guideline; Work in Confined Spaces Procedure.

SIGM continues to maintain plans and procedures that identify the assumptions and parameters on which the facility design was based as necessary to prevent or control cyanide releases and exposures consistent with applicable regulatory requirements. Key assumptions and parameters include target free cyanide concentrations in Leach Tanks 1 and 5; WAD cyanide and salinity operating parameters within the TSF, the design maximum rainfall event (1 in 100-year, 72 hour) and freeboard requirements at the TSF and operating ponds.

Procedures and Work Instructions are reviewed every 12 or 24 months depending on the risks associated with the job or potential for change to the task as determined by the relevant department. A review can be initiated at any time if a change to the procedure/task is required or if there is a modification to equipment or cyanide facilities.

SIGM implements a Change Management Procedure 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. The site Management of Change (MoC) System consists of a Management of Change Procedure, Management of Change Proposal form, an Engineering focused Change Management Form, a change Initiator Form and a Risk Management Standard. The Management of Change Procedure outlines the principles and process to manage permanent or temporary changes at SIGM. MOC forms require review and sign off by relevant departments including Safety and/or Environment Departments where required. All MOC documentation is stored in INX as an event with the event number noted on the MOC proposal. A number of change management examples were reviewed which were signed off by safety and or environmental advisors.

SIGM has cyanide management contingency procedures for nonstandard operating situations that may present a potential for cyanide exposures and releases, such as an upset in the operational water balance that presents a risk of exceeding the design containment capacity; problems identified by facility monitoring or inspection; and temporary closure or cessation of operations.

Procedures, Manual and Management Plans that consider non-standard operating situations and provide response actions include the Cyanide Management Plan, Cyanide Emergency Management Plan; Emergency and Crisis Management Plan including Duty Cards; Lefroy Mill Area Emergency Plan; Temporary cessation of operations Procedure; Processing Escalation Procedure; Significant Rainfall Event; Lefroy Tailings Management Plan; Power Outage Immediate Action and Critical Equipment Restart Procedure and SIGM Decontamination and Decommissioning Plan. These documents consider a range of non-standard operating

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scenarios including loss of containment of process solutions; embankment failure; excessive seepage; pipe leakages or failures; pump failure; loss of power; overtopping events at the TSF or process water ponds; and exceedances in operating parameters of the tailings.

The Temporary Cessation of Operations Procedure provides actions for non-emergency, short notice and temporary cessation of operation scenarios. It identifies strategies and procedures to be followed for a short term and or unplanned shutdown including: Plant shutdown sequence, Operations shutdown required tasks, Processing infrastructure strategies, Processing inspection schedule, Decontamination and equipment decommissioning, Preventative maintenance strategies, Power supply, and Environmental compliance guidelines. The Preparing for Significant Rainfall Events Work Instruction provides contingency strategies for high rainfall events that aim to reduce the risk of overtopping of cyanide facilities. The Processing Escalation Procedure addresses the requirement to escalate events relating to loss of processing efficiency, lost production, mechanical failure, equipment damage, injury, or environmental incidents to senior management personnel. The Lefroy Tailings Storage Facility Management Plan identifies emergency response procedures which cover overtopping of water storage dams; tailings and return water line failure; small and large scale embankment failure. The SIGM Decontamination and Decommissioning Plan (DDP) contains strategies and actions relating to temporary closure or cessation of operations which may occur due to situations such as work stoppages, lack of ore or other essential materials, economics, civil unrest, or legal or regulatory actions. The DDP contains strategies and actions for closure of the plant area including all cyanide facilities except the TSF which are addressed in the Mine Closure Plan.

SIGM undertakes a broad range of inspections at all cyanide facilities on an established frequency to assure and document that they are functioning within design parameters. The frequency of inspections is appropriate to assure and document that they are functioning within design parameters. Frequency of inspections is outlined in the Cyanide Management Plan and area operating manuals and scheduled in INX. Planned General Inspections (PGIs) are conducted monthly according to a Planned General Inspection Roster.

The SIGM Processing department undertakes inspections of the active TSF facilities, pumps and pipelines are conducted by the processing department every 12 hours which is appropriate for the purpose of detecting freeboard in storages, evidence of leaks or spills, pump flows. Operational daily inspections are also conducted throughout the processing plant and at the inactive TSFs, heap leach facilities and process water pond. Daily wildlife monitoring is conducted at the active TSF and process water pond. Inspections cover integrity and capacity of bunding; condition and evidence of leaks from pipelines, pumps and valves; presence of wildlife and carcasses; available freeboard on the TSF and ponds and general housekeeping. Area inspections are undertaken on a monthly basis and cover cyanide facilities within the following cyanide areas: Reagents (cyanide unloading and storage facilities); Leach/Pump Cell Tanks & Thickener Circuit; Elution; and the Lefroy Tailings Storage Facility, Bores & Water

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Supply.

CIL tanks pre-date cyanide certification and are located on concrete ring beam foundations with no impermeable barrier between them and the ground. Leak detection systems have been installed beneath each tank and consist of pipes below the tank that direct and solutions to a capped port at the side of the tank. Leak detection ports are inspected monthly for the presence of solutions.

A groundwater monitoring bore is located adjacent to the plant and is monitored quarterly for groundwater quality including cyanide. The tailings and return water pipelines have telemetry and pressure gauges installed which are monitored within the SCADA system to detect any leaks.

The cyanide unloading and storage facilities are inspected during monthly Reagents Area inspections which cover the cyanide unloading facility and all hoses, valves and couplings used for unloading liquid cyanide. If any equipment requires maintenance, repairs or replacements or there are any other non-compliances then actions are raised in INX and work requests raised in the Asset Management Tool (AMT). Inspections of the cyanide unloading and storage area are also conducted prior to each unloading event. The cyanide storage tank undergoes external inspection every two years and is emptied and refurbished every five years which is considered appropriate with consideration of thickness testing and leak detection monitoring.

Additional inspections are conducted by external consultants/organisations including annual cyanide storage area inspection by the cyanide supplier (AGR); annual TSF audits (conducted by an external Geotechnical Engineer); Cyanide Code Gap Audits and Dangerous Goods Audits which are conducted approximately every three years.

A Corrosion Management Audit is conducted annually by third party experts and includes structural steel, concrete, rotary equipment, piping and support and miscellaneous items for leaching, adsorption, elution, reagents and tails disposal areas.

Preventative Maintenance activities for cyanide facilities is determined in accordance with the Asset Management Model contained. Preventative Maintenance inspections cover all tanks holding cyanide solutions for their integrity and signs of corrosion and leakage; secondary containments for their integrity, the presence of fluids and their available capacity, and to ensure that any drains are closed and, if necessary, locked, to prevent accidental releases to the environment; leak detection and collection systems at leach pads and ponds, as required in the design documents; pipelines, pumps and valves for deterioration and leakage; and ponds and impoundments for the parameters identified in their design documents as critical to their containment of cyanide and solutions and maintenance of the water balance, such as available freeboard and integrity of surface water diversions.

All inspections are documented on hardcopy forms or electronically in fast fields forms and include the date, name of inspector and any observed deficiencies. Operational inspections identify all of the items to be inspected with each item ticked as compliant or not and comments

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recorded in the comments/non-conformance column. Corrective actions are identified on completed inspection sheets in an action's column. All inspection records are stored electronically either as scans of hard copy documents or as electronic forms and retained in INX or AMT for a period of at least three years.

The preventative maintenance procedures were demonstrated during the audit and completed records provided for a range of inspections conducted. Scanned copies of completed monthly operations area inspections, tank inspection reports, corrosion reports, leak detection inspections, preventative maintenance inspections and third-party audits have been verified for the audit period. Inspections have been documented to a high standard.

SIGM has necessary emergency power resources to operate pumps and other equipment to prevent unintentional releases and exposures in the event its primary source of power is interrupted. SIGM has access to mains power supplied by the State electricity network. In the event of a power failure, emergency power is provided by emergency diesel generators, and these are inspected on a weekly basis. Emergency generators are not sufficient for all power needs and additional gensets are hired on an as needs basis.

The Power Outage Immediate Action and Critical Equipment Restart Procedure outlines the process to be followed during a power failure including the restart of plant and critical equipment to prevent unintentional releases. It includes a flow chart that shows the order of tasks to be undertaken when re-starting the plant.

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## Standard of Practice 4.2

*Introduce management and operating systems to minimize cyanide use, thereby limiting concentrations of cyanide in mill tailings.*

The operation is ☒ in full compliance with ☐ in substantial compliance with ☐ not in compliance with Standard of Practice 4.2

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with Standard of Practice 4.2: Introduce management and operating systems to minimize cyanide use, thereby limiting concentrations of cyanide in mill tailings.

SIGM uses a variety of systems and management strategies to optimise cyanide use, control the cyanide concentrations throughout the leaching circuit, achieve target gold recovery and maintain WAD cyanide targets in the final tails.

SIGM undertakes routine monitoring throughout the leach circuit and tailings to achieve these aims including online free cyanide analysis at leach tanks 1, 2 and 5 (final leach tank) for control of cyanide dosing flow rate; online WAD cyanide analysis at the tailings hopper, bottle roll testing of tailing ore, manual titrations of slurry samples and monthly diagnostic testing of the tails stream.

Cyanide control throughout the plant is governed by the Cyanide Control work instruction (SIG-PRO-WI086). Site metallurgists review a daily mill assay report to determine cyanide addition rates and determine cyanide addition set points for Leach Tank 1. The set points for cyanide and pH within Leach Tank 1 are communicated to Mill Control and process operators through the use of a Lefroy Mill Operating Specifications spreadsheet. This is emailed to operators on a daily basis. Cyanide additions to the leach circuit are controlled through the Supervisory control and data acquisition (SCADA) interface in the Mill Control Room.

The SCADA system interfaces with a Distributed Control System (DCS) and Programmable Logic Controllers (PLC). The system monitors and controls free cyanide and WAD cyanide concentrations and a MANTA Cube control module is used to optimise addition rates. An 8-day MANTA Cyanide Cube Performance Report is produced on an ongoing basis to evaluate the performance of the system over the previous week

A cyanide destruction plant was installed in 2017 to increase control of cyanide in the tailings prior to discharge. The flow rate of the tails slurry feed to the cyanide destruct plant and data from the tailings WAD cyanide analyser is used to help determine the cyanide addition rates to

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LT 1.

A number of ore bodies are processed at SIGM and ore is blended in varying compositions for processing through the Lefroy mill. SIGM assess the characteristics of all ores processed through Pre-Feasibility Metallurgical Evaluation Studies prior to initial mining. Periodic testing of ore bodies in the active mining stage is also conducted as deemed necessary. Detailed metallurgical test-work reports are retained by the Metallurgical Department for each ore type and the most recent study was reviewed (Invincible Footwall South ore body, July 2023).

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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  
☐ not in compliance with

Standard of Practice 4.3

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with Standard of Practice 4.3: Implement a comprehensive water management program to protect against unintentional releases.

SIGM continues to implement a comprehensive, probabilistic water balance (PWB), developed by third-party hydrogeological consultants. The modelling software uses the probabilistic Monte Carlo simulation to account for uncertainties in inputs.

The PWB is maintained and run according to the SIGM Quarterly Water Balance Modelling for St Ives. The model has the capacity to run probabilistic simulations and also event-based simulations for defined rainfall events and a scenario of a power outage during the design storm event. The PWB is run on a quarterly basis by the Processing Superintendent and a Water Balance Run Report is produced which provides the results including TSF pond volume, Leviathan supernatant depth, stormwater dam volume and heap leach flows, for the scenarios modelled. The storm event modelled is a 1 in 100-year 72-hour average recurrence interval (ARI) event (165 mm of rainfall) which is the industry standard use for water balance modelling.

The user views and operates the program using a dashboard and conceptual flow diagram which shows the water circuitry including all water and solution storages and water flows.

The SIGM probabilistic water balance model considers the following aspects in a reasonable matter as appropriate for the facilities and environment; the rates at which solutions within tailings are deposited into tailings storage facilities; 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; the quality of existing precipitation and evaporation data in representing actual site conditions; the amount of precipitation entering a pond or impoundment resulting from surface run-on from the upgradient watershed, including adjustments as necessary to account for differences in elevation and for infiltration of the runoff into the ground; the model considers solution losses from seepage and evaporation; the effects of potential power outages or pump and other equipment failures for emergency removal of water from a facility.

Discharge to surface waters does not occur at SIGM.

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Leach pads are not operational at SIGM and have not been used during the audit period.

Freezing and thawing of tailings and process solutions are not applicable to SIGM due to its location/climate.

The Leviathan in-pit TSF is required to have a minimum of 2 meters of freeboard in accordance with the Western Australian (WA) Department of Water, Environment and Regulation (DWER) Licence (L8676/2012/1) which is adequate to contain the event of 1 in 100-year 72-hr average recurrence interval (ARI) design event. Freeboard at non-active TSFs (TSFs 1, 2, 3 and 4) is maintained at 300 mm. The Process Water Pond is operated with a minimum freeboard of 300 mm. It has a pond level sensor installed and pond volume is shown within the SCADA system. The active TSF and process water pond are inspected at least every 12 hours as required by the DWER Licence including for adequacy of the freeboard.

The decant pond at the top of the TSF embankment has been decommissioned and the supernatant is pumped directly back to the Process Water Pond (PWP).

Internal TSF Audits reports are produced quarterly which include the available freeboard within the TSFs (active and inactive) and the decant ponds. Annual third party TSF audits are conducted and include an inspection of the tailings discharge network, decant infrastructure, underdrainage, embankment and walls, surface water diversion channel and freeboard.

No overtopping of ponds or impoundments has occurred during the recertification period.

Rainfall data for the PWB is obtained from the nearest Bureau of Meteorology weather station at Kambalda which is approximately 20 km north-west of site. This is appropriate as it provides a quality-controlled data set from a reasonably close location with a similar climate. Rainfall is updated in the water balance model as required.

PWB model run results are reviewed and compared to design criteria to determine if there will be overflows to the environment. If the model shows a possible overflow to the environment then the Processing Superintendent would create an action in INX to review where the possible overflow to environment is likely to occur and by how much with the appropriate team (Processing Manager, Superintendent, Production Coordinators, Maintenance Superintendent, Services Superintendent, Production Coordinators) and then determine actions to stop the possible overflow.

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## 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 substantial compliance with Standard of Practice 4.4

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in SUBSTANTIAL COMPLIANCE with Standard of Practice 4.4: Implement measures to protect birds, other wildlife, and livestock from adverse effects of cyanide process solutions.

SIGM implements measures to restrict access by wildlife and livestock to open waters where WAD cyanide exceeds 50 mg/l.

SIGM operates with alternative compliance measures for Standard of Practice 4.4 in accordance ICMI Mining Guidance. Prior to initial Code certification SIGM commissioned a study to determine and implement the processes to achieve certification with hyper-salinity (> 50,000 mg/L TDS) as an alternative measure to meet the objective of Standard of Practice 4.4 even with tailings discharge of above 50 mg/L WAD cyanide. This study, Minerals & Energy Research Institute of Western Australia Project M398 – Cyanide Ecotoxicity at Hypersaline Gold Operations (M398) presented the argument that hypersalinity formed a protective mechanism against wildlife cyanosis at SIGM and other hypersaline sites. The study and peer review reports determined site specific operating parameters for SIGM which form the alternative Code compliance limits within the TSF for the operation. These operating parameters are provided in the table below.

Parameter	Maximum WAD CN (mg/L)	WAD CN - 80 percentile (Cyanide must be below on 80% of days) (mg/L)	Minimum TDS (mg/L)
Spigot	132	112	50,000
Supernatant (Decant)	65	N/A	50,000

This was accepted by Code auditors and the ICMI in the initial certification audit in 2007. SIGM have maintained this method of achieving Code compliance with SOP 4.4 in all subsequent Code audits.

The Leviathan TSF is an in-pit storage facility. It is unfenced, however the vertical pit faces

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prevent access to terrestrial wildlife. Operational activities and disturbed ground occur adjacent to the TSF and provide further barriers to wildlife.

The tailings are hypersaline with a salinity of approximately 100,000 mg/L TDS or greater (approximately three times seawater). This eliminates or significantly reduces exposure to aerial fauna such as birds and bats. Infrastructure has been minimised within the vicinity of cyanide-bearing habitats throughout the audit period in accordance with M398 Recommendation 3.

Third-party expert (DES) quarterly surveys found that vegetation growth has not been significant within the Leviathan Pit and perimeter walls throughout the audit period in accordance with M398 Recommendation 3. No significant vegetation growth was observed within the Leviathan Pit and perimeter walls during the audit site visit (on 27 August 2024).

Decant ponds and process water ponds operated on site are fenced with a locked gate which deny terrestrial wildlife access. Ponds for the inactive Heap Leach Pad (HLP) are fenced within the same area as the Process Water Pond. One of the HLP ponds is netted as when operational it had higher WAD cyanide levels than other ponds. The Leviathan Decant Pond has been decommissioned and supernatant from the TSF is returned directly to the process water pond.

SIGM maintained the prescribed cyanide and salinity operating parameters during the audit period in compliance with operating parameters with some exceptions discussed below.

A small number of exceedances in WAD cyanide operating parameters at the Leviathan TSF spigot (4 exceedances) and supernatant (12 exceedances) out of 968 sampled days to 17 November 2024 which is considered a high level of compliance throughout the audit period. The 80th percentile of the spigot discharge was maintained as was the hypersalinity of the tailings. INX incidents were lodged for each of the four days when cyanide discharge was beyond the maximum and wildlife monitoring was conducted on all days when exceedances were recorded, and no wildlife mortalities were detected. Actions were taken for the exceedances including taking a second spigot sample to confirm the result, changing the ore blend to decrease high copper aspects of blend, adding hypersaline water to tails hopper, increasing the sodium metabisulfite (SMBS) ratio within the cyanide destruction plant to reduce the WAD cyanide, reducing leach cyanide setpoints, and increased wildlife monitoring.

In addition, SIGM initiated a project (INX 413060) and engaged a third-party expert to assist with a cyanide copper balance to identify root cause of an increase in WAD cyanide and copper in the decant. The study resulted in actions being implemented and the copper content and WAD cyanide concentration of the supernatant has shown a declining trend since January 2024. The supernatant has not been above 65 mg/L since 29 December 2023 and has shown a gradual decline in WAD cyanide concentrations since March 2024.

The operation of the TSF is therefore considered to be compliant throughout the audit period.

The Process Water Pond (PWP) receives liquor from the TSF as well as raw water, storm water and water from other on-site ponds depending on availability and requirements. The PWP was

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monitored on a weekly basis for cyanide from the start of the audit period (23 February 2022) until 13 September 2023 with analysis conducted off site by the WA Chemistry Centre. As part of a site wide rationalisation of chemistry monitoring, cyanide monitoring at the PWP was discontinued on the 14 September 2023. This is consistent with cyanide monitoring outlined in M398 Table 2 which only includes cyanide monitoring at the TSF spigot and supernatant. However, the PWP receives solutions directly from the Leviathan TSF which has an operating parameter of 65 mg/L WAD cyanide, and it is considered by the auditor that cyanide monitoring at the PWP is required to demonstrate that it meets cyanide concentration limits.

A review of cyanide monitoring relevant to the Code was undertaken early in 2024 and cyanide monitoring at the PWP was re-commenced on 28 February 2024 with samples taken daily and analysed on-site. This resulted in a period of 166 days when cyanide was not monitored at the PWP. Daily cyanide monitoring at the PWP has been collected on all days since 29 February 2024 with data provided to 17 November 2024, a period of 8.5 months. The Cyanide Management Plan (CMP) and the SIG-PRO-WI094 WAD CN Monitoring Work Instruction have been updated to include cyanide monitoring at the PWP. These actions are considered sufficient to demonstrate that monitoring will be maintained at the process water pond.

Cyanide concentrations at the PWP were above 50 mg/L WAD cyanide in 108 samples (to 17 November 2024). The PWP was not included in the M398 project and hence the cyanide limit for this pond has been 50 mg/L WAD cyanide for all audit periods rather than 65 mg/L WAD cyanide as it is at the TSF supernatant. An exceedance of the 50 mg/L WAD CN limit was first recorded on 13 September 2023. No exceedances have been recorded by weekly cyanide sampling within the audit period prior to this. Since daily cyanide monitoring re-commenced at the PWP the has been elevated above 50 mg/L WAD CN on 108 days (41% to 17 November 2024) and above 65 mg/L WAD CN on eight days (3.1%).

The exceedances above 50 mg/L WAD cyanide at the Process Water Pond were systematic and considered a deficiency. This occurred as a result of increasing copper content in the tailings increasing the WAD cyanide within the TSF supernatant; strategies to reduce the supernatant volume within the TSF by increasing return of the supernatant from the TSF to the process water pond (and thereby reducing use of raw water); and a differential between in cyanide operating parameters between the TSF supernatant (65 mg/L WAD cyanide) and the Process Water Pond (50mg/L WAD cyanide).

SIGM commissioned a study to explore whether hypersalinity is a valid protective mechanism at the PWP for operating parameters which exist for the TSF supernatant (> 50,000 mg/L TDS and less than 65 mg/L WAD cyanide). The study used similar methods to determine that the hypersalinity protective mechanism is valid at TSF4, the North Orchin In-pit TSF (both since decommissioned) and the Leviathan IN-pit TSF (active). All of these studies occurred after the initial M398 study as prior TSFs were decommissioned. No carcasses were detected during the study and very little wildlife activity was observed. The study concluded that the hypersaline mechanism was valid at the PWP and that the risk to wildlife is not greater than it is at the

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paddock TSF on which the original study validated hypersalinity as a protective mechanism (M398 2008, DES 2024). The findings and operating parameters recommended are consistent with the findings at SIGM for the four paddock TSFs, the North Orchin in-pit TSF and the Leviathan in-pit TSF. The auditor accepts these findings of the report that the protective mechanism of hypersalinity is valid at the Process Water Pond, and it is therefore accepted that the operating parameters of a maximum of 65 mg/L WAD cyanide while solutions are hypersaline (> 50,000 mg/L TDS) is protective of wildlife at the Process Water Pond.

There have however been exceedances of 65 mg/L at the Process Water Pond on eight days since 29 December 2023 with the last occurring on 27 July 2024. All exceedances occurred on days when the cyanide concentration measured at the TSF supernatant was below 65 mg/L. No incidents were lodged for these exceedances and no specific actions were taken. Subsequent investigations found that solutions from the thickener overflow were diverted to the Process Water Pond when the volumes in the process water tank (in the mill) were high. This elevated the WAD cyanide concentrations above 65 mg/L in the Process Water Pond on eight recorded occasions.

The exceedances above 65 mg/L WAD cyanide at the process water pond are considered to be a systematic deficiency despite the small number of incidents (eight) as they resulted from a control logic programmed into the SCADA system. This was identified during the audit site visit and SIGM changed the control logic within a timely manner to eliminate the potential for higher WAD cyanide concentration water to report to the process water pond. The WAD cyanide concentration within the PWP has not exceeded 65 mg/L since implementing this change. Compliance with revised operating parameters at the PWP has been maintained for a period of less than four months hence Full Compliance has not yet been established.

SIGM monitors for wildlife on a daily basis at the TSF and monitoring has been conducted on 97.6% of days throughout the audit period with monitoring not conducted on 22 days between 23 February 2022 and 26 August 2024. Wildlife monitoring data and observations are recorded on the electronic TSF inspection form. These are retained, and results are consolidated in a TSF and Process Water Pond Bird Inspections spreadsheet which was verified by the auditor to confirm that wildlife monitoring at the TSF was conducted throughout the audit period.

Wildlife Monitoring was not conducted at the Process Water Pond (PWP) between 28 September 2023 and 8 March 2024 (150 days) which is a deficiency. This was mostly concurrent with the period that cyanide monitoring was not conducted at the PWP. The Wildlife Monitoring spreadsheet indicates that monitoring has been conducted at the Process Water Pond since 9 March 2024 a period of approximately 5.5 months to 15 August 2024 (the last date data was provided) The spreadsheet includes Process Water Pond in the Active Cell column however the observation type is still noted as TSF for all observations and there are no additional details for what was observed at the pond. It is therefore not clear how long the Process Water Pond was monitored for or if wildlife was observed there.

Wildlife observations are conducted by site personnel who have received specific wildlife

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observation training by the environment department and/or third-party experts. Training of wildlife monitors has been verified by the Auditor. Bat monitoring has been conducted monthly on top and within the Leviathan pit and at a Turkey Nest control site as per M398

Recommendation 2. Intensive third-party experts have conducted wildlife monitoring on a quarterly basis throughout the audit period and undertaken quarterly reviews of monitoring data and produces a quarterly compliance report relating to SOP 4.4.

Wildlife mortalities are lodged as incidents in the INX system and are reported to the SIGM Environmental Department. No cyanide related wildlife mortalities were recorded at the TSF during the audit period. Six wildlife mortalities were recorded at the cyanide unloading and storage facilities. It is likely that at least five of the six bird mortalities at the cyanide unloading and storage facility were due to cyanosis. The identified causes were addressed through actions and wildlife mortalities have not been recorded at these facilities since the actions have been taken.

Compliance with operating parameters at the PWP has been maintained for a period of less than four months hence full compliance has not yet been established. Wildlife Monitoring records for the PWP have been provided for a period of less than six months and monitoring details are not clearly shown in the wildlife monitoring spreadsheet which is not sufficient to demonstrate ongoing compliance.

The deficiencies identified are correctable within 12 months; do not present an immediate or substantial risk to health or the environment; and SIGM has made a good faith effort to maintain compliance. Consequently SOP 4.4 is found to be in Substantial Compliance.

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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  
☐ not in compliance with

Standard of Practice 4.5

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with Standard of Practice 4.5: Implement measures to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.

SIGM does not have direct discharge of cyanide process solutions to surface water from any defined cyanide facility.

There are no downstream waters from the operation and therefore no indirect discharge from the operations to surface water.

SIGM has a licence to discharge de-watering mine water to the adjacent hypersaline ephemeral lake (Lake Lefroy). Mine discharge water does not have cyanide in it and is separated from all cyanide facilities.

SIGM routinely assays this discharge for several analytes including WAD cyanide concentration.

Monitoring results are reported to the applicable legislative jurisdiction and within the SIGM Annual Environmental Report. WAD cyanide monitoring results are below the WAD cyanide detection limit.

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## 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  
☐ not in compliance with

Standard of Practice 4.6

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with Standard of Practice 4.6: Implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of ground water.

The groundwater quality at SIGM is hyper-saline with a salinity of approximately 100,000 mg/L TDS and there are no identified beneficial uses of groundwater beneath or immediately down gradient of the operation. The numerical standard for cyanide concentration in groundwater established by the applicable jurisdiction, the Western Australian Government Department of Water and Environmental Regulation (DWER), is 0.5 mg/l WAD CN.

The only active TSF at SIGM is the Leviathan in-pit TSF. Paddock TSFs 1 to 4 are all inactive and the North Orchin-in-pit TSF is closed and at full capacity. The Heap Leach Pad and associated ponds are non-operational although the HLP process ponds may still receive water following rainfall.

SIGM implements a range specific water management or other measures to manage seepage to protect the beneficial use of ground water beneath and/or immediately down gradient of the operation. These include lining of Paddock TSF decants, the Heap Leach Pads and process ponds with low permeability materials to limit seepage to groundwater. Tailings and return water pipes are equipped with telemetry systems which is monitored through the SCADA system to allow for the detection of leaks and failures and are located within secondary containments sufficient to contain any spill. The Leviathan in-pit TSF, process ponds and associated pipelines are inspected on a daily basis.

The freeboard of the active TSF and process water ponds are inspected at least every 12 hours as required by the DWER Licence. Free board of the inactive TSFs (1 to 4) and heap leach pads is visually inspected once a day.

SIGM monitors for WAD cyanide on a quarterly basis at nine groundwater monitoring bores adjacent to the Leviathan in-pit TSF and 15 groundwater monitoring bores adjacent to TSF4. Groundwater monitoring for cyanide is also conducted every 6 months at one bore adjacent to the pant and TSFs 1-3 (9 bores) and the Heap Leach Pad (16 bores). No readings above 0.5

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mg/L WAD cyanide have been returned in any of the bores throughout the audit period. Groundwater monitoring data, including WAD cyanide concentrations is reported annually to the Department of Water and Environmental Regulation (DWER) in the SIGM Annual Environment Report.

SIGM have evaluated the potential impacts to worker health and the beneficial uses of ground water in the use of mill tailings as underground backfill and implemented measures as necessary to address them.

SIGM operates three paste plants for use as underground paste fill. Tailings from TSF1 (which inactive and last used more than 12 years ago) is reclaimed and used as paste fill plant feed. They are mixed with dewatered mine water that has not been used in the processing plant and does not contain cyanide. The harvested tailings are monitored monthly with two samples at each location analysed at the TSF1 source location, and at the three paste plants. The samples are analysed for WAD Cyanide, and the results are stored in a spreadsheet maintained by the Hygiene Advisor (Environment Health and Safety (EHS) Department).

The WAD Cyanide soil analysis spreadsheet and for water feed to the paste plant, was reviewed during the audit and contained sample location, sample date, WAD cyanide, Total cyanide and pH results. No results of 0.50 mg/kg WAD CN or greater were recorded in the audit period.

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## 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  
☐ not in compliance with

Standard of Practice 4.7

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM 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 cyanide unloading, storage and process solution tanks at SIGM. No cyanide mixing tanks exist at SIGM.

All cyanide unloading activity takes place on a bunded and sealed concrete pad. Any spills on the unloading pad drain to a sump in the cyanide storage compound. The Cyanide Storage Tanks sit on a concrete pad within a concrete secondary containment bund. The cyanide storage tanks have High and High High alarm which trigger within SCADA to avoid overfilling.

All process tanks, including CIL and Elution tanks and the Tailings Thickener in the Lefroy Mill are located within a single secondary concrete containment bund. SIGM utilises and maintains an unlined containment pond which is maintained in an empty state as described in the Processing Emergency Plan and only used in emergency situations. Its use requires an INX Incident to be lodged and a clean-up including to remove material and re-instate the containment volume. Secondary containment bunds were mostly free of material and found to be in good condition during the audit.

CIL tanks pre-date cyanide certification and are located on concrete ring beam foundations with no impermeable barrier between them and the ground. Leak detection systems have been installed beneath each tank and consist of pipes below the tank that direct any solutions to capped ports at the side of each tank. Leak detection ports are inspected monthly for the presence of solutions and if any are present this is reported to the Mechanical Supervisor immediately. Any solutions present are analysed for the presence of cyanide and if cyanide is detected further actions are taken.

In addition to internal inspections, SIGM utilises third party experts to conduct specialised inspections, including cyanide unloading facilities (conducted by the cyanide supplier AGR); annual TSF audits (conducted by the Engineer of Record); specialised internal and external inspection of tanks for corrosion, metal thickness, thermographic and vibration surveys.

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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. Secondary containment volumes for the Lefroy Mill have previously been calculated as identified in the Technical Note - Lefroy Mill Secondary Containment Capacity.

The secondary containment bund for the Cyanide Storage Tanks is designed to contain 110% of the tanks volume plus a 1 in 100, 72-hour rainfall event plus and pipe drainback. The Lefroy Mill containment bund does not hold 110% of the volume largest processing tank (which is the tailings thickener) plus a 1 in 100, 72-hour rainfall event. As per previous audits, SIGM has an unlined containment pond, referred to as the Last Chance Pond to maintain the secondary containment requirements (110% of the volume of the tailings thickener plus a 1 in 100, 72-hour rainfall event plus pipe drainback). The Last Chance Pond is unlined and therefore maintained in an empty state and only used in emergency situations. Should cyanide bearing solutions report to the Last Chance Pond an incident must be lodged in INX and a clean-up of the material is required in accordance with the Processing Emergency Plan and the Cyanide Spill Ground Decontamination work instruction to ensure that it is emptied and remediated as soon as practically possible following the incident.

No new tanks or facilities which would change secondary storage volume requirements have been implemented in the audit period.

SIGM has a range of procedures to prevent discharge to the environment of cyanide solutions or cyanide contaminated water that is collected in a secondary containment area including the following: Lefroy Tailings Management Plan, Cyanide Management Plan, Heap Leach Solution Management Plan, Operator Housekeeping Requirements Work Instruction, Draining Leach, Cyanide Unloading/Delivery, Preparing For Significant Rainfall Events, Power Outage Immediate Action and Critical Equipment Restart Work Instruction.

Secondary containments are inspected by operations personnel to check sump pumps and identify processing material to be removed during daily inspections and monthly PGI Inspections.

Secondary containments are in place for all cyanide process tanks. An unlined emergency pond may receive tailings solutions should the entire content of the tailings thickener spill. The use of this pond is managed by the Processing Emergency Plan to ensure that it is emptied and remediated as soon as practically possible after it is used. The Cyanide Spill Ground Decontamination work instruction also describes how spills to ground should be remediated. The Cyanide Emergency Response Plan Pre-Incident Plan 5: Liquid Spills Outside of Bunded Areas also contains actions to be taken by the Emergency Response Team (ERT) should it be necessary for them to be called out.

One spillage event was recorded during the audit period required notification to DWER and Government of Western Australia Department of Mines, Industry Regulation and Safety

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(DMIRS). This was for a spill of over 10,000 litres which left the mill secondary containment and reported to a vegetated area and bare ground outside a secondary containment. INX documentation identified that the area was remediated according to the Cyanide Spill Ground Decontamination Work Instruction and a new work instruction SIG-PRO-WI259 Thickener Cleanout Using Boom Pressure Cleaning Truck was developed for the task being performed to avoid such incidents in the future.

SIGM provides spill prevention or containment measures for all cyanide process solution pipelines to collect leaks and prevent releases to the environment. All the cyanide containing pipelines within the plant and cyanide storage area are located over a concrete secondary containment or have a pipe in pipe secondary containment. The tailings and return water pipelines are placed above ground within earthen bunded culverts which acts as a secondary containment. The pipelines have either concrete culverts or pipe in pipe secondary containments where they cross haul roads. Sumps are located along the pipeline corridor in low points to capture and contain any spillage from the tailings and return water pipelines. A section of the tailings and return water pipelines appears to be buried without culverts under the haul road. As per the previous audit civil drawings demonstrate that a culvert is present but has been covered with earth and trenches are present for visual leak detection. The tailings and return water pipeline have pressure sensors and flow meters to detect any leaks. These are monitored within SCADA. The TSF and Return Water Pipeline are inspected for leaks as part of the daily TSF inspections. The pipeline bunds and culverts were verified to be in adequate condition during the site inspections

No areas where pipelines containing process solutions present a risk to surface water have been identified at St Ives as the pipelines are not in close proximity to any potential areas of surface water.

Cyanide tanks and pipelines are constructed of materials compatible with cyanide and high pH conditions. All process tanks, including CIL, ILR and Elution tanks and the Tailings Thickener are constructed of mild steel, typically lined with abrasion and corrosion resistant synthetic poly coatings.

Cyanide bearing pipes including the tailings and return water pipelines are mostly constructed of high-density polyethylene (HDPE) material or mild steel which are compatible with cyanide and high pH and meets specifications and Australian Standards required for containment of cyanide. Some of the pipework in the cyanide unloading and storage area is made of stainless steel as recommended by AGR. Pumps and fittings are constructed of mild steel or HDPE.

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## 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  
☐ not in compliance with

Standard of Practice 4.8

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with Standard of Practice 4.8: Implement quality control/quality assurance (QA/QC) procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.

Quality assurance and quality control programs been implemented during construction of all new cyanide facilities and modifications to existing facilities, including cyanide unloading, storage, and other cyanide facilities. No cyanide mixing facilities exist at SIGM as the operation only received cyanide solutions.

Two new cyanide facilities were constructed during the audit period, a new InLine Leach Reactor in 2022 and a Barren Electrolyte Tank which was installed in 2024. QA and QC documentation including completion reports, drawings and QA and QC documentation which was verified by the auditor.

QA and QC documentation for the new cyanide facilities includes leak test records, weld sheets, welder qualifications, ground compaction test certificates, concrete foundation dispatch sheets, concrete pour sign-off sheets, concrete field sampling sheets, electrical work test sheets, inspection and test plans, manufacturer's data reports, material test certificates, non-destructive testing records, as-build drawings, mill test certificates and piping test certificates.

Appropriately qualified personnel have reviewed cyanide facility construction and provided documentation that the facility has been built as proposed and approved including the Senior Mechanical Engineer, Supervisors, Project Manager, Licenced Electrician, Qualified Welder and Coating Inspector.

All previous QAQC documents, design drawings and supporting compliance documentation has been retained by SIGM for all QA and QC programs. All documentation has been stored electronically in the project management files as verified by the auditor.

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## 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

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with Standard of Practice 4.9: Implement monitoring programs to evaluate the effects of cyanide use on wildlife, surface and ground water quality.

SIGM have developed and maintained written standard procedures for all groundwater, surface water and wildlife monitoring activities. These include the Surface and Groundwater Monitoring Procedure, Work Instruction - Groundwater Sampling, Work Instruction - Surface Water Sampling, Work Instruction - Soil Sampling, Preservation and Dispatch of WAD CN Samples, Wildlife Observations Work Instruction, WAD CN Monitoring Work Instruction, Water Sample Handling and Preservation Work Instruction, Wildlife Observation Data Sheet Tailings Storage Facility, Decant Pond, Return Water Pond, Leviathan TSF Daily Log Sheet, SIGM Environment Standard, Environmental Monitoring Timetable, Fauna Incident Management Procedure.

Procedures specify 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 analyses.

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

Sampling and analytical protocols have been developed by an appropriately qualified person. All personnel who have developed procedures have a minimum qualification of a Bachelor degree in Environment Management. Sign-off of procedures is by appropriately qualified Superintendents and Managers all of whom have a minimum qualification of a Bachelor degree.

The TSF supernatant and spigot and the process water pond are all sampled on a daily basis and analysed on site for WAD cyanide, salinity and pH.

Groundwater quality monitoring for WAD cyanide and metals is undertaken on a quarterly or six-monthly basis as determined by the DWER Licence conditions.

Various process solution streams are monitored at frequencies required for process purposes - either daily, 2-hourly, or on a continuous basis using online analysers.

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Wildlife monitoring is conducted on a daily basis at the active TSF and the process water pond. Third-party experts conduct wildlife verification monitoring at the TSF on a quarterly basis which is industry best practice.

Sampling conditions, livestock/wildlife activity, cloud cover, wind, precipitation, and temperature are recorded on wildlife and water monitoring field sheets and recorded within the monitoring database.

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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  
☐ not in compliance with

Standard of Practice 5.1

#### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with Standard of Practice 5.1: Plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife, livestock, and the environment.

SIGM has developed written procedures to decommission cyanide facilities at the cessation of operations with the Decontamination and Decommissioning Plan and the Mine Closure Plan. The Decontamination and Decommissioning Plan for the Cyanide Storage Facilities addresses pre-closure tasks, decontamination, demolition, and post shutdown tasks, including cyanide stock reduction, and cyanide disposal. The Decontamination plan outlines methods for which decontamination chemicals are to be used, and how to decontaminate high and medium strength cyanide tanks and piping.

The SIGM Decontamination and Decommissioning Plan for the Cyanide Storage Facilities lists an implementation schedule of tasks which commence up to two years prior to planned closure, including drawing down of cyanide stock, and the review of safety procedures. The plans are reviewed periodically and as needed.

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## 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 ☐ not in compliance with Standard of Practice 5.2

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with Standard of Practice 5.2: Establish a financial assurance mechanism capable of fully funding cyanide-related decommissioning activities.

SIGM has developed an estimate of the cost to fully fund third party implementation of the cyanide-related decommissioning measures as identified in its site decommissioning and closure plan (the SIGM Decontamination and Decommissioning Plan for the Cyanide Storage Facilities and SIGM Mine Closure Plan). Detailed costings for closure are estimated by third party consultant using their costings model 'Standardised Reclamation Cost Estimator' (SRCE). The SRCE model includes equipment and personnel mobilisation and management costs of a third party to carry out the closure activities. Closure cost calculations are maintained in a Closure Costs Estimate report and associated SRCE model spreadsheets. Closure costs are estimated using two models, Day of Assessment (DoA) specifies costs in the event the operation was to undertake closure activities at the present day. Life of Mine (LoM) specifies costs for the approved projects and activities until scheduled closure date.

SIGM review and update the cost estimate at least every five years and when revisions to the plan are made that effect cyanide-related decommissioning activities. The SRCE cost estimate is updated annually.

SIGM participates in the financial mechanism required by the applicable jurisdiction to cover the estimated costs for cyanide-related decommissioning activities as identified in its decommissioning and closure strategy. The Government of Western Australia Department of Mines, Industry Regulation and Safety (DMIRS) has established the Mine Rehabilitation Fund (MRF). SIGM participated fully in the Government of Western Australia's Mine Rehabilitation Fund during the audit period by paying annual levies that take into account the degree of disturbance on the SIGM leases and closure costs.

In addition to compliance with a financial mechanism (MRF) approved by the applicable jurisdiction, SIGM maintains a funding mechanism known as the Gold Fields Rehabilitation Provision. Under the requisite accounting standards that Gold Fields operates, the recognised

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liability or estimate of costs for dismantling and restoring the site are included in the cost of the asset. These costs are addressed as part of the annual closure cost estimate process and captured in the provision as the booked Day of Assessment (DoA) costs.

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## 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 ☐ not in compliance with Standard of Practice 6.1

#### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with Standard of Practice 6.1: Identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce and control them.

SIGM has developed procedures describing how cyanide related tasks should be conducted to minimise worker exposure. These include procedures for unloading, plant operations, entry into confined spaces, and equipment decontamination prior to maintenance. SIGM does not undertake mixing activities.

There are written Procedures and Safe Work Instructions for each part of the plant operations, and these include hazards and controls for the area, and the processes necessary for the safe and environmentally sound operation of the area. Safe Work Instructions and Procedures describe cyanide related tasks with detailed instructions outlining steps taken to complete a task safely, including potential hazards and controls, and what Personal Protection Equipment (PPE) and permits are required.

The procedures require, where necessary, the use of personal protective equipment and address pre-work inspections. Safe Work Instructions and Procedures all identify the PPE requirements for carrying out the tasks. Where appropriate the procedures require the completion of checklists prior to the commencement of a task, for example prior to cyanide unloading. Procedures for activities to be carried out where cyanide solution of Hydrogen Cyanide (HCN) Gas have a prominent warning. The requirement for using PPE is addressed in all inductions and training, is stipulated in Safe Work Instructions and Site-Specific Procedures, and by signage in plant areas. This includes the use of HCN gas detectors in designated areas. The Take 5 Process encourages pre-work inspections as part of the basic and fast risk assessment that must be performed prior to completing any task.

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SIGM solicits and actively considers worker input in developing and evaluating health and safety procedures. and when new cyanide related procedures are developed or periodically reviewed. All new written Procedures and Work Instructions are drafted and finalised by subject matter experts and managers, the drafts are sent out to all crews for review and input.

Worker input into safety is solicited in a variety of ways, including through: Monthly meetings are held with health and safety representatives across all departments, Crew monthly safety meetings, Processing Department Safety Meetings, Daily Pre-Start Meetings, Toolbox/Safety meetings for each Team.

When a job scope changes, or a new task is carried out a Job Safety Analysis (JSA) or Take Five risk assessment is conducted prior to undertaking the task. Formal and informal safety discussions are held as part of Task observations.

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## 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  
☐ not in compliance with

Standard of Practice 6.2

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with 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.

SIGM has determined the appropriate pH for limiting the evolution of hydrogen cyanide gas during production activities. The optimum working pH for the SIGM mill is between 9.5 and 10.0 as determined by qualified metallurgists based on changing operational circumstances to maintain protective alkalinity and prevent the evolution of hydrogen cyanide gas. The pH of the leach tanks is constantly measured by a static in-tank pH probe and verified during operator sampling rounds.

SIGM has identified areas and activities where workers may be exposed to cyanide in excess of 10 ppm on an instantaneous basis and 4.7 ppm continuously over an 8-hour period and require use of personal protective equipment in these areas or when performing these activities. SIGM has identified that all wet areas of the plant pose a risk to HCN exposure. Three levels of risk area have been identified within the Processing Facility based upon historical data Low Level Risk Areas require portable gas detection units (Monotox) to be worn at all times. Medium Level Risk Areas require a Half Face Respirator (cyanide compliant) to be worn. Work Instructions for relevant tasks include the requirement to wear them. Access to High-Risk Areas (potential to produce HCN in excess of permissible levels on a regular basis). is prohibited whilst the plant is operational. These areas include the SAG mill discharge screen walkway, and the areas around the Carbon Safety Screen downstream of the Pump Cell Circuit. HCN monitor PPE signs were observed in the field inspection of the Processing Plant. The need for wearing HCN monitors in the processing plant is included in the induction process and in written procedures. No solid cyanide is used at SIGM for ore processing, and hence no monitoring occurs for cyanide dust.

SIGM uses cyanide monitoring devices in processing areas and for activities involving management of cyanide to confirm that workers are not exposed to hydrogen cyanide gas exceeding 10 ppm on an instantaneous basis or 4.7 ppm continuously over an 8-hour period. SIGM uses both fixed and personal HCN gas monitors to verify that controls are adequate to

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minimise the evolution of HCN gas from process slurries and solutions.

Fixed HCN monitoring devices are located in process areas identified as high risk to confirm that workers are not exposed to hydrogen cyanide gas exceeding 10 ppm on an instantaneous basis. Fixed HCN Monitors are located in 10 locations. The locations are identified as High-Risk areas and were based on 12 months of data. The static HCN monitors will generate an audible alarm at 4.7ppm and 10ppm.

It is mandatory to wear a personal HCN monitor in designated areas of the plant. Signs indicating personal HCN monitors are to be worn are located at the entrances to the cyanide containing areas of the processing plant. Managing HCN Gas Procedure outlines actions to be taken when a personal gas monitor alarms. 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 monitors are calibrated by an external certified instrument technician. Calibration records were observed for the duration of the audit period.

The docking stations are used to perform the bump tests and calibration of each personal monitoring device. Personal HCN detectors are bump tested at least weekly. Bump tests records are retained and stored electronically, and each unit can be searched with the full testing history visible. Calibration records for all hydrogen cyanide monitoring equipment is retained on site for a minimum of three years.

Warning signs have been placed at strategic locations where cyanide is used to advise workers that cyanide is present and notify of any necessary personal protective equipment that must be worn, and that smoking, open flames and eating and drinking are not allowed. Specific warning signs are placed at the entrance to the processing plant and entrance to the operating TSF instructing No smoking, No Naked Flames, No eating or drinking and minimum PPE to be worn. Signage around the cyanide unloading facility includes cyanide warning signs and prohibition to entry storage compound (locked); PPE requirement signs, including the use of personal HCN monitors, gloves and goggles, and protective clothing; No smoking, No Naked Flames and No eating or drinking. Signage mandating that personal HCN monitors must be worn are located at all stairways into the processing areas that contain cyanide solutions and at all tailings storage facilities. Labelling is present on the TSF pipelines indicating "Tailings Line" and Decant Return".

Red carmosine dye is added to all sodium cyanide solutions by AGR prior to delivery for identification. High strength cyanide solution was observed to be red at the cyanide additions point on the leach tanks.

Safety showers, low-pressure eyewash stations and dry powder fire extinguishers are located at strategic locations throughout the operation, and they are maintained, inspected and tested on a regular basis. Safety showers, low pressure eyewashes and fire extinguishers are in various locations including the cyanide delivery, cyanide storage, on top of leach/CIL tanks, and elution area. The Safety showers, low pressure eyewashes and fire extinguishers are checked as part of

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the monthly safety inspections. Only dry chemical powder (DCP) extinguishers are available within the leach and CIL tanks, gold room and cyanide storage areas. The fire extinguishers are inspected and serviced on by an independent contractor.

Unloading, storage, mixing and process tanks, process pipework and tailings piping containing cyanide are identified to alert workers of their contents, and the direction of cyanide flow in pipes is designated. Cyanide storage and unloading tanks are clearly labelled with content warning labels. Pipelines containing high strength cyanide solution are labelled in a violet colour with white writing to indicate the contents and flow directions. The Tailings pipeline and return water pipeline are labelled "Tailings Line" and Decant Return" which show the direction of flow. The site inspection confirmed that tank and pipe labelling was present but was faded in some areas.

All Safety Data Sheets (SDS), first aid procedures and cyanide safety information are written in English, which is the language of the workforce and are available in areas where cyanide is managed. SDS are written in English and printed and located in locations where cyanide is managed (ie Mill Control Room, Cyanide unloading facility safety box; Titration hut, Processing Department Reception, Lefroy Mill Workshop, Lefroy Mill Wet Laboratory). Electronic SDS are available via ChemWatch. Specific First Aid information relating to Cyanide is displayed in the TAC 2000 hut on Leach Tank 1, the titration hut adjacent to the absorption circuit, Lefroy Mill control room, and Heap Leach office area.

SIGM has a procedure to investigate and evaluate all 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 revising. All incidents and hazards are reported in INX InControl. SIGM Hazard/Incident Reporting and Investigation Procedure outlines the incident investigation process for all incidents, which includes any cyanide exposure. All incidents that involve people being exposed to concentrated cyanide solution require a level 2 investigation with a full Incident Cause Analysis Method (ICAM) investigation, and the selection of an investigation team made up of, Management, Occupation Health and Safety (OHS), Technical professionals and other identified key stakeholders. Alarms that exceed the HCN gas exposure limits are recorded as incidents for investigation. INX incident reports for high level alarms were verified on screen in the INX database.

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## 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  
☐ not in compliance with

Standard of Practice 6.3

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM 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.

SIGM has oxygen, resuscitators, antidote kit, and a radio system for communication and emergency notification readily available for use at the cyanide unloading and storage locations and elsewhere in the plant.

Oxygen Soft Packs are located in four locations around the processing plant, including the cyanide unloading area. Bulk oxygen bottles (and equipment for administering medical oxygen) are stored at the medical clinic and in the Ambulance. The two-way radio is the primary means for raising an emergency, and for communication during an emergency.

The Medical Clinic has two cyanide antidote kits (CyanoKit) which are stored at the recommended temperature (25°C) and are within the expiry date. CyanoKits are only to be administered by the site medic under authorisation of the Health Watch on-call doctor.

Respirators and appropriate hydrogen cyanide canister filters are stored in key locations in the processing plant and at the cyanide unloading facility - Field inspection observed these were all at the signposted locations and contained the required items. The Cyanide Unloading Spotters Hut was verified during the site inspections as containing the following: Full Face Mask, Cyanide Canisters, Mono Goggles, Oxygen Soft Pack, PVC chemical overalls, rubber boots, PVC gloves, printed copies of Emergency Procedures.

SIGM 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. The Emergency Services Officers (ESOs) carry out weekly, fortnightly and monthly checks on the First Aid Equipment in the Medical Centre and of the Ambulance, including the cyanide response kits and the cyanide antidote kits. The four oxygen Inhalos located in the processing area are checked weekly by the ESO's (inspection sheets viewed). An external company (Mediquip) come once a year to check and test all medical equipment, including the oxygen equipment.

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SIGM has developed specific written emergency response plans or procedures to respond to cyanide exposures. SIGM has developed the Cyanide Emergency Response Plan (CERP) that provides specific response procedures to cyanide exposures. Cyanide Exposure Emergency Response Guidance Chart outlines the First Aid response for cyanide exposure through ingestion, inhalation and absorption through the skin and eyes. The CERP contains decontamination procedures and first aid measures including steps to take for suspected cyanide poisoning cases in a flow chart, with off-site emergency contact information. Appendix 1 of the CERP: Clinical Practice Guidelines for the Treatment of Cyanide Toxicity for casualty treatment. This includes administering oxygen and administering of the cyanide antidote.

SIGM has its own on-site capability to provide first aid or medical assistance to workers exposed to cyanide. SIGM has an onsite medical clinic based at the Lefroy administration facility adjacent to the processing facility that has oxygen, antidote kits, Automated External Defibrillator (AED) and advance airway management kits that is manned by a paramedic during day shift, in addition the ESO's provide Night Shift cover, and have received training in advanced first aid. The medical clinic and Ambulance have a Cyanide Response kit packed with all the equipment required for an initial cyanide response. As backup, SIGM utilises a third-party medical service provider Health Watch who hold the Poisons Permit for administering scheduled medications, and for expert medical advice as required. In addition, the Kalgoorlie Hospital is available to be contacted.

First Aid boxes are located in each work area, crib room, and all vehicles. Defibrillators and oxygen equipment are located around the site with signage in place to identify their location.

SIGM has developed procedures to transport workers exposed to cyanide to locally available qualified off-site medical facilities. SIGM has developed procedures to transport workers exposed to cyanide to locally available qualified off-site medical facilities. SIGM has its own fully equipped ambulance onsite to transport patients to the onsite First Aid clinic or if necessary is capable of driving a patient to the nearest equipped hospital (ie Kalgoorlie Health Campus). The procedure to be followed for transporting patients with cyanide exposure is outlined in the CERP. The attendant must carry a monotox and have a respirator available if there is any HCN gas detected.

SIGM has informed local medical facilities of the potential need to treat patients for cyanide exposure and is confident that the medical facility has adequate, qualified staff, equipment, and expertise to respond to cyanide exposures. SIGM has a Memorandum of Understanding (MOU) with Kalgoorlie Health Campus for the purpose of the treatment of patients suffering exposure to cyanide. Support will be provided under their current priority system for the treatment and evacuation (if deemed necessary) of patients suffering exposure or suspected exposure to cyanide. SIGM also has a formal arrangement with Health Watch (on-call Doctor) who hold a Poisons Permit for SIGM, which can allow administering of Scheduled drugs, which includes for providing medical assistance over the telephone.

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## 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 ☐ not in compliance with Standard of Practice 7.1

#### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with Standard of Practice 7.1: Prepare detailed emergency response plans for potential cyanide releases.

SIGM has developed emergency response plans to address potential accidental releases of cyanide and cyanide exposure incidents. The Site Crisis Management Plan (SCMP) provides over-arching guidance to emergency management. Specific Emergency Plans complement the SCMP, including the Lefroy Mill Emergency Plan and the Tailing Management Plan. The Cyanide Emergency Response Plan (CERP) provides detailed responses to all potential cyanide releases and cyanide exposure incidents. The SCMP addresses emergency preparedness, emergency response, recovery and review, and duties of emergency team. The CERP addresses incident response to plausible cyanide release and exposure scenarios, first aid responses to a cyanide exposure, and decontamination and neutralisation methods. This is further supported by additional procedures such as the Hazmat Response Guideline.

The SIGM emergency response plans consider the potential cyanide failure scenarios appropriate for its site specific environmental and operating circumstances. Potential Cyanide related scenarios include: Catastrophic release of hydrogen cyanide from storage or process facilities; Transportation accidents occurring on site or in close proximity to the operation; Cyanide releases during unloading; Cyanide releases during fires and explosions; Pipe, valve and tank ruptures; Overtopping of ponds and impoundments; Power outages and pump failures; Uncontrolled seepage; Failure of cyanide treatment systems; Failure of tailings impoundments.

Planning for response to transportation-related emergencies has considered transportation route(s), physical and chemical form of the cyanide, method of transport the condition of the

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road or railway, and the design of the transport vehicle. Cyanide transported for delivery to site is under the control and responsibility of the cyanide Producer (AGR) and AGR's transporter to SIGM, Qube Bulk. They are responsible for emergency response in the case of an accident or release when on route; and have developed detailed emergency response plans in their Transport Management Plan for Sodium Cyanide Product. AGR, through CSBP's emergency response team provides offsite support in the event of an incident involving its sodium cyanide product. The QUBE Journey Management Plan for Kalgoorlie Rail yard to St Ives Gold Mine has the preferred route to be taken, and identified hazards, and relevant emergency information. The CSBP Vehicle Operators Handbook for Sodium Cyanide outlines the vehicle operators' action in an emergency and the Emergency Response procedures, and the CSBP Transport Management Plan for Sodium Cyanide Product provides information on the physical and chemical form of the cyanide, method of transport, condition of road and railway and the design of the transport vehicle. A spill occurring close enough to the site for sending the ERT to respond would follow "Pre-Incident Plan 3 - Transport and CSBP transportation management plan".

The SIGM emergency response plans describe specific response actions (as appropriate for the anticipated emergency situations). Clearing site personnel from the area of exposure is addressed in the CERP which describes the Evacuation Procedure which includes the use of muster points. The SIGM emergency response plans do not address potentially affected communities. There are no communities within the vicinity of the site that would require response actions.

The use of cyanide antidotes and first aid measures for cyanide exposure are addressed in the "Clinical Practice Guideline for the treatment of Cyanide Toxicity" (included in the CERP) which outlines the First Aid response for cyanide exposure including the use of cyanide antidotes (which can only be administered by site medics and ESO's with authorisation from a Health Watch on-call Doctor).

Control of releases at their source, and containment, assessment and mitigation of releases are addressed in the SIGM emergency response plans. Containment of spills is proposed to be achieved by using a loader to build earth bund walls ("Pre-Incident Plan 5 - Liquid Spills outside of Bunded Areas"). Excess solution can be pumped back into the bunded areas or absorbed with dry sand or ferrous sulphate and removed to the tailings storage facility. The CERP lists an action for the Shift Coordinator to initiate shutdown and isolation of all processes.

Post Incident neutralisation and decontamination is addressed in the CERP and in the "Cyanide Spill Ground Contamination" Work Instruction. Soil sampling of contaminated areas is carried out by the environment department in accordance with the "Soil Sampling Work instruction".

Future prevention of releases is addressed by release events being raised as an incident, and subsequent investigating and reporting is conducted in accordance with Incident Reporting procedures, and methods for preventing a future release incident are identified.

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## 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  
☐ not in compliance with

Standard of Practice 7.2

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with Standard of Practice 7.2: Involve site personnel and stakeholders in the planning process.

SIGM has involved its workforce and external stakeholders, including potentially affected communities, in the cyanide emergency response planning process. The operation provides a range of opportunities for worker involvement and feedback in the cyanide emergency response planning including the following: Monthly and daily safety meetings, and mock drill debriefs.

The nearest external community is Kambalda township which is about 20 km away. It is considered too far away to be affected by an on-site cyanide emergency.

SIGM has identified external entities having emergency response roles and have involved those entities in the cyanide emergency response planning process. SIGM is a part of the Shire of Coolgardie Local District Emergency Management Committee (LEMC). The LEMC is the forum used to communicate emergency response processes and to receive feedback from external stakeholders. SIGM has a MOU with the Department of Fire and Emergency Services (DFES) to provide mutual support in planning and responding to emergency incidents. SIGM has formal arrangements with Health Watch (on-call Doctor) for providing medical advice.

SIGM engage in consultation or communication with stakeholders to keep the Emergency Response Plan current.

SIGM engages in consultation or communication with stakeholders to keep the Emergency Response Plan current. They are involved with the planning process to the extent that they have agreed that they can provide additional resources (equipment and personnel) in the event of an emergency. Consultation and communication with on-site stakeholders regarding currency of Emergency Management Plans occurs through a variety of avenues. Mock drills are used to assess emergency response preparedness on site. After each Mock Emergency Drill a debrief session is run, feedback on how the exercise went has been used to improve and update procedures.

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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 substantial compliance with Standard of Practice 7.3

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in SUBSTANTIAL COMPLIANCE with Standard of Practice 7.3: Designate appropriate personnel and commit necessary equipment and resources for emergency response.

The SIGM emergency response plan designates primary and alternative emergency response coordinators who have explicit authority to commit the resources necessary to implement the plans; identifies emergency response teams, requires appropriate training for emergency responders, includes call-out procedures and references to 24-hour contact information for the coordinators and response team members; specifies the duties and responsibilities of the coordinators and team members; lists emergency response equipment, including personal protection gear available on site; includes procedures to inspect emergency response equipment, and describes the role of outside responders, medical facilities and communities in the emergency response procedures, in relation to cyanide elements of the plans.

The CERP designates the Emergency Services Officer (ESO) to be the primary emergency response coordinator, and the Mill Supervisor/ Shift Boss will be the alternate On Scene Commander (OSC). The role of OSC is responsible for coordinating the response of the Emergency Response Team (ERT) and will support and coordinate the ERT to control and contain the cyanide incident.

The CERP requires that the emergency services personnel are to be activated, and that the standard number of responders is six, but a rescue can be conducted with less than six if the backup team is enroute. The ERT operates according to specific emergency response procedures which outline the team's responsibilities and actions for a safe and orderly response in emergency situations. The availability of ERT is checked at the start of each shift by the ESO's.

The Emergency Services Standard outlines the ERT training requirements. All members of the site Emergency Response Team (ERT) undertake training to complete Certificate III in Mine Emergency Response & Rescue to a Nationally Accredited (RII) standard as a minimum. The team member needs to demonstrate competence in hazardous materials response training, first aid, self-contained breathing apparatus prior to being allowed to respond to cyanide incidents.

The ERT Training Calendar shows the weekly training schedule for ERT members. Training is run weekly, four times a month to capture all crews. ERT members participate in annual mock drills.

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The CERP specifies that the ERT Captain will be responsible for coordinating the emergency response team, assigning roles and responsibilities to the ERT and preparing the required equipment.

The CERP lists the emergency response equipment required for each Pre-Incident Plans (PIP). The Pre-Incident Plan details the emergency response equipment deemed necessary for each scenario including personnel protective equipment. The required items are all available onsite or in emergency vehicles (Fire Tender, Rescue Trailer, and Ambulance). Emergency Services Standard has a table of required regular checks and inspections.

It was identified during a Gap Audit in December 2022 that the ERT inspection records for 2022 were incomplete and that this was identified as a deficiency. Many hardcopies of equipment inspection records had either been lost or not scanned into the electronic storage system (ESSD M:drive). A memo was provided to the auditors by SIGM in which it identified and described the deficiency, identified the root cause of the deficiency and identified actions taken to address the root cause. Actions were taken to address identified emergency response equipment inspection deficiencies however gaps within the documented inspection record were still evident in the 2024 records for some ERT inspections including Fire 1, Rescue Trailer and Ambulance - Alpha 2.

Emergency Services Standard (Sect 7) outlines the mutual aid agreements that SIGM have established. The Pre-Incident Plans in the CERP includes the notification of external responders in relevant scenarios. SIGM has a MOU with the Department of Fire and Emergency Services (DFES) to provide mutual support in planning and responding to emergency incidents. SIGM has a MOU with Kalgoorlie Health Campus for the purpose of the treatment of patients suffering exposure to cyanide. SIGM has formal arrangements with Health Watch (on-call Doctor) for providing medical advice. Mutual Aid Agreements have been made with other mine emergency response teams (ie Mincor Resources NL), the agreement states clearly the extent to which mutual aid may be offered, and the role that would be played. SIGM has confirmed that outside entities included in the Emergency Management Plan are aware of their involvement.

The deficiencies in the ERT inspection records as identified above are correctable within 12 months; do not present an immediate or substantial risk to health or the environment; and SIGM has made a good faith effort to maintain compliance. Consequently SOP 7.3 is found to be in Substantial Compliance.

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## Standard of Practice 7.4

*Develop procedures for internal and external emergency notification and reporting.*

The operation is ☒ in full compliance with  
☐ in substantial compliance with  
☐ not in compliance with

Standard of Practice 7.4

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with Standard of Practice 7.4: Develop procedures for internal and external emergency notification and reporting.

The SIGM Emergency Management Plan includes procedures and contact information for notifying management, regulatory agencies, outside response providers and medical facilities of the cyanide emergency. The SCMP includes details for appropriate external emergency notification and reporting, including to regulatory agencies. The SCMP has a Duty Card for the Communications Advisor with the procedures to follow, and all contact details are contained in the plan.

Cyanide Exposure Emergency Response Guidance Chart (in the CERP) outlines the First Aid response for cyanide exposure and contains first aid measures including steps to take for suspected cyanide poisoning cases in a flow chart, with off-site emergency contact information. The Site Medic has established protocols for contacting medical aid offsite, including Health Watch and Kalgoorlie Health Campus. The CERP includes the contact numbers for CSBP AGR's 24-hour Emergency Response Service, the Kalgoorlie Health Campus contact numbers, and the DFES contact phone numbers. The SCMP includes a complete contact list for all other stakeholders.

SIGM emergency response plans include procedures for communication with the media. The SCMP includes details for external communication (including the Media). External communication strategy is governed by the Gold Fields Australia (GFA) communication standard. SIGM emergency response plans do not include procedures and contact information for notifying potentially affected communities of the cyanide related incident and any necessary response measures, as there are no communities in close enough proximity to be affected by a cyanide incident on site and would not require immediate communication. Nevertheless, any communications with those communities would be handled by GFA.

SIGM has a procedure for notifying the ICMI of any significant cyanide incidents, as defined in ICMI's Definitions and Acronyms document. The notification protocols for notifying ICMI of any significant cyanide incidents is in Section 7.4.1 of the Cyanide Management Plan. It includes the list of what is considered a significant incident, and the contact details for the ICMI. No

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significant cyanide incidents, as defined in ICMI's Definitions and Acronyms document have occurred in the audit period.

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## 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.*

☒ in full compliance with  
The operation is ☐ in substantial compliance with Standard of Practice 7.5  
☐ not in compliance with

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with 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 SIGM emergency response plans describe specific remediation measures as appropriate for the likely cyanide release scenarios, including recovery or neutralisation of solutions or solids, decontamination of soils or other contaminated media, and management of spill clean-up debris. Excess solution can be pumped back into the bunded areas or absorbed with dry sand or ferrous sulphate and removed to the tailings storage facility. Post Incident neutralisation and decontamination is addressed in the and in more detail in the "Cyanide Spill Ground Contamination" Work Instruction. It includes a formula to determine the amount of ferrous sulphate will be required to neutralise a given spill size. The procedure includes the requirement to use full protective clothing including respiratory protection. The process of decontaminating any equipment used for a spill is described in SIGM Decontamination of Equipment for Maintenance and Removal. Disposal of spill clean-up debris is addressed in the CERP. Spilled liquid cyanide solution can be pumped back into a bund and put back through the process plant. Contaminated soil will be excavated and disposed of to the tailings storage facility.

There are no drinking water supplies that could come into contact with cyanide at the site and provision of alternative water supplies is therefore not applicable.

The SIGM emergency response plans prohibit the use of chemicals such as sodium hypochlorite, ferrous sulphate and hydrogen peroxide to treat cyanide that has been released into surface water or that has the potential to reach surface water. The locations where ferrous sulphate is stored are provided in the CERP and the Cyanide Spill Ground Contamination Work Instruction. The Cyanide Emergency Response Plan states that sodium hypochlorite, ferrous sulphate and hydrogen peroxide are never to be used to treat cyanide released into natural surface water bodies and dry drainages that have the potential to lead to surface water. It is important to note that SIGM has no discharges to surface water and no surface water bodies in

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the immediate vicinity of the cyanide facilities. The SIGM emergency response plans address the potential need for environmental monitoring to identify the extent and effects of a cyanide release, and include sampling methodologies, parameters and, where practical, possible sampling locations. The CERP instructs that after contaminated soil has been removed, to test soil with a cyanide test kit and/or electronic monitor, if CN present, remove more soil and retest until level falls below 10ppm. The number of samples to be taken would be based on the location and nature of the spill as determined through consultation with the environment department.

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## Standard of Practice 7.6

*Periodically evaluate response procedures and capabilities and revise them as needed.*

The operation is ☒ in full compliance with Standard of Practice 7.6  
☐ in substantial compliance with  
☐ not in compliance with

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with Standard of Practice 7.6: Periodically evaluate response procedures and capabilities and revise them as needed.

SIGM reviews and evaluates the Emergency Management Plan for adequacy on an annual basis, and when required. SIGM's document management protocols require review of the Cyanide Emergency Response Plan (CERP), and the Site Crisis Management Plan (SCMP), annually.

Mock drills involve the ESO, the ERT and other on-site personnel who would be expected to respond to cyanide emergencies and sometimes include an area evacuation. External personnel may be involved in mock drills as required - but usually the involvement of the external agency is simulated.

There have been seven cyanide related mock drill field exercises carried out in the audit period, and four other mock drills that test the Emergency Response procedures. Three of the cyanide mock drills were a response to a cyanide exposure which involved the activation of the ESO and medic, with ERT deployment for retrieval of multiple casualties. One mock drill was a cyanide exposure which enacted a full ERT Hazmat response with retrieval of casualties plus the decontamination process. Other mock drills tested for mobilising of the ERT from the camp accommodation, a full mill evacuation, testing the use of the Duty cards.

In the mock drill held on 23 May 2024 (cyanide exposure and cyanide release) AGR (our cyanide response company) and QUBE (our cyanide truck drivers) were involved with the incident. The incident simulated a collision of a cyanide truck with a light vehicle on the causeway (crossing the salt lake) and tested the entire cyanide emergency response process from the initial emergency callout notification through to the close-out of the response process. There are provisions in place to evaluate and revise the emergency response plans as required, including following any mock drills or an actual cyanide-related emergency. The Emergency Services Standard requires that after any significant incident, it is crucial that the response is analysed correctly and that any learnings are incorporated into the appropriate response plans. Mock drills follow the same procedures. The improvements that were identified from the debriefs following the mock exercises included more training, and updated procedures. At the time of audit, there was no occurrence of any cyanide related emergencies that required the

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activation of the emergency response process within the audit period.

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## 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 ☐ not in compliance with Standard of Practice 8.1

#### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with Standard of Practice 8.1: Train workers to understand the hazards associated with cyanide use.

All personnel who may encounter cyanide in cyanide hazard recognition are trained in cyanide hazard recognition.

All SIGM employees and contractors are required to do the Goldfields Regional Induction which includes basic information on Cyanide General Awareness. All employees and contractors who will access the processing area are required to do the Processing Site Induction which includes: the common forms of cyanide, PPE to be worn to protect from cyanide, factors that may contribute to the production of HCN, exposure limits to HCN, consequences of exposure to HCN, areas within the processing facility with High, Medium and Low risk of exposure to HCN, symptoms of cyanide poisoning, emergency response procedures to cyanide exposure.

SIGM employees and contractors who will be working in the processing plant have to do the Cyanide Awareness training. This training material is supplied by AGR. It covers the chemical properties of cyanide, safe use of cyanide, dangers of cyanide, symptoms of cyanide poisoning, required PPE, cyanide first aid, methods for neutralising cyanide, what to do when there is a cyanide incident. A review of training records showed that all workers in the Processing Department had completed cyanide awareness training, with the exception of three people who were on extended leave.

Cyanide hazard recognition refresher training is periodically conducted. Cyanide Awareness refresher training is carried out on an annual basis at SIGM for all personnel working in cyanide areas. The Processing Plant Induction needs refresher training every three years.

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Cyanide training records are retained. Records of all cyanide related training including inductions, and cyanide awareness and training are maintained and managed by the Training Advisor. SIGM uses Learned Management Systems (LMS) software to electronically store training records.

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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  
☐ not in compliance with

Standard of Practice 8.2

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM 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.

SIGM trains workers to perform their normal production tasks, including unloading, mixing, production and maintenance, with minimum risk to worker health and safety and in a manner that prevents unplanned cyanide releases. Work Instructions are in place for most normal production tasks, including unloading, mixing, production and maintenance. All Work Instructions which involve work where a worker may encounter Cyanide have a very distinct front cover warning them that Cyanide hazards exist when performing the task and the controls necessary to prevent exposure.

SIGM trains employees prior to working with cyanide. Training is required for workers in Processing Reagents area including Cyanide Unloading/Delivery; Cyanide Spill Ground Decontamination; Decontamination of Equipment for Maintenance or Removal; Cyanide Storage Compound Access. Training for workers in Processing Leach area: Cyanide Titration; pH Control; WAD CN Monitoring. New employees are initially assigned a "buddy" so that they can learn alongside an experienced operator until the Supervisor is satisfied that the worker can perform the tasks safely.

Training elements necessary for each job involving cyanide management are identified in training material used at SIGM. Written procedures and Work Instructions are used for the initial training material which are signed by the trainee to demonstrate they have read and understood the procedure. All cyanide related procedures and work instructions identify the purpose of the procedure, PPE requirements, hazards associated with the task, steps involved in the task and other requirements of the procedure.

At SIGM task training related to cyanide management activities provided by an appropriately qualified person. Competency-based training undertaken by new operators is signed off by Shift Supervisors. Other formal training elements are conducted by the Training Advisor/ Crew Trainer. The Buddy System Procedure has clearly defined requirements for appropriate

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buddies.

Before undertaking any work with cyanide, workers must undertake the Processing Department Induction and AGR Cyanide Management. The Buddy System is used to train all new workers before performing new tasks. SIGM ensures that employees undergo the appropriate training for a specific work area prior to undertaking that work without coaching. Until the employee is found competent for specific work tasks, they must be supervised by a competent technician (buddy) while conducting the work.

SIGM provides refresher training on cyanide management to ensure that employees continue to perform their jobs in a safe and environmentally protective manner. AGR Cyanide Awareness Training is required to be completed annually. The Processing Induction is carried out every three years. Work Instructions are reviewed as a minimum every 2 years or when the work instruction undergoes a significant change.

SIGM evaluates the effectiveness of cyanide training by testing, task observation and other means. Upon completion of the operational area and specific tasks while working under the Buddy System, the supervisor must confirm that the Trainee can demonstrate the required underpinning knowledge and skills for completion of the procedures.

Records are retained throughout an individual's employment to document the training they receive including the names of the employee and the trainer, the date of training, the topics covered, and if the employee demonstrated an understanding of the training materials. Learned Management Systems (LMS) software plans, implements, and assesses learning processes and needs. St Ives Gold Mine uses LMS to maintain, record, store, retrieve training records, and initiate refresher training. The name, date, course completed, and trainer is recorded. All training records are maintained and managed by the Training Advisor.

During a third-party gap analysis of the St Ives Gold Mine operation, commissioned in December 2022, the operation was found not to have a functioning LMS training system in the context of the Cyanide Code. Since last recertified, the operation was unable to demonstrate that training records have been retained and staff refresher training conducted where required. Many training records had either been lost from the LMS system or never entered, although attempts were made to retrieve and manually repopulate the LMS. Some hardcopy training records were retrieved from hardcopy format and were populated into the LMS system. Some electronic training records were retrieved and repopulated into LMS. This was recognised as a deficiency during the December 2022 Gap Audit and actions were commenced immediately following the Gap Audit to address the deficiency including rapid assessment of those deemed trained (and hence retrained) and those requiring full training.

A memo was provided to the auditors by SIGM in which it identified and described the training deficiency, identified the root cause of the deficiency and identified actions taken to address the root cause. The actions and responses taken above are considered to provide a fulsome response and have addressed the identified deficiencies including the root causes. SIGM has

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maintained a high standard of training compliance and documentation since December 2023. Consequently, no further actions are considered necessary by the auditor and standard of practice 8.2.7 is given full compliance.

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## Standard of Practice 8.3

*Train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.*

The operation is ☒ in full compliance with Standard of Practice 8.3  
☐ in substantial compliance with  
☐ not in compliance with

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM 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.

Cyanide unloading, production and maintenance personnel at SIGM are trained in the procedures to be followed if cyanide is released. All plant personnel (including unloading, production and maintenance) are trained in the immediate response to a cyanide spill, including first aid response in the Processing Induction. The training includes the following actions while awaiting the paramedic: ensure there is no immediate danger, get the person to a safe area with fresh air, remove contaminated clothing, commence decontamination with a shower. Training is also conducted for Oxygen Soft Pack Use which describes the process of administering oxygen to cyanide affected patients.

All plant personnel (including unloading, production and maintenance) are trained in the Cyanide Spill Ground Decontamination Work Instruction. This training addresses cyanide solution spills inside and outside of spill containment areas.

At SIGM 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. The ERT is responsible for site emergency response and are therefore the primary responders to cyanide incidents. ERT members undergo weekly training including the use of oxygen. To attend an Emergency Response incident in the Processing area, the ERT members must have completed the Hazardous Materials (HAZMAT) and Breathing Apparatus competencies. They also complete cyanide awareness training and Processing Induction.

All members of the site Emergency Response Team (ERT) undertake training to complete Certificate III in Mine Emergency Response & Rescue to a Nationally Accredited (RII) standard. Formalised training of cyanide emergency response procedures is also undertaken in the form of Mock Drills. During weekly training sessions ERT members also undertake equipment and skills training necessary for responding to cyanide emergencies.

Where deemed necessary, SIGM has made off-site Emergency Responders, such as community

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members, local responders, and medical providers, familiar with those elements of the Emergency Response Plan related to cyanide. However, due to the location of the operation there is likely to be limited response involvement and therefore those entities have limited involvement in the emergency response planning process. SIGM has a MOU with the Department of Fire and Emergency Services (DFES) to provide mutual support in planning and responding to emergency incidents. SIGM has a MOU with Kalgoorlie Health Campus for the purpose of the treatment of patients suffering exposure to cyanide. SIGM has formal arrangements with Health Watch (on-call Doctor) for providing medical advice. The Emergency Services Officer also attends the Local Emergency Management Committee which is chaired by the local authority and involves other operations and stakeholders.

SIGM conducts regular refresher training for response to cyanide exposures and releases. AGR Cyanide Awareness Training is required to be completed annually. Cyanide Spill Ground Decontamination training is carried out every three years. Oxygen Soft Pack training will be refreshed every two years. The ERT conduct regular training sessions which include First Aid and HAZMAT.

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. SIGM uses Learned Management Systems (LMS) to maintain, record, store, retrieve training records, and initiate refresher training. The name, date, course completed, and trainer is recorded. All training records are maintained and managed by the Training Advisor.

Emergency Response Team training records are managed by the ERT Coordinator. Each member has a personal file (electronic) with copies of the training certificates issued by external training providers are stored in the folders with all records of onsite training attended. Training records include the names of the employee and trainer, date of training, topics covered, and the assessment completed to confirm understanding of training content.

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## Principle 9 | DIALOGUE AND DISCLOSURE

*Engage in public consultation and disclosure.*

### Standard of Practice 9.1

*Promote dialogue with stakeholders regarding cyanide management and responsibly address identified concerns.*

The operation is ☒ in full compliance with ☐ in substantial compliance with ☐ not in compliance with Standard of Practice 9.1

#### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with Standard of Practice 9.1: Promote dialogue with stakeholders regarding cyanide management and responsibly address identified concerns.

SIGM provides stakeholders with information on its cyanide management practices and engages with them regarding their concerns.

The SIGM workforce and their families are key stakeholders, and information about cyanide management is shared at family visitation days. SIGM has a Stakeholder Engagement Plan which outlines a formal engagement process with all identified stakeholders. Stakeholders are able to contact SIGM directly, via a Community Feedback Line. The email address is opportunistically promoted at public events. The Community Complaint and Grievance Standard outlines the procedure to be taken for addressing any complaints. To date no community concerns about cyanide have been received.

SIGM uses the INX InForm suite to document all interactions with external stakeholders including email interactions. Interactions such as meetings and phone calls are logged manually through the INX interface on the web browser.

Stakeholders are also able to contact Gold Fields via the website, which contains a "Contact Us" page, with a tab for the Regional Offices.

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## 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  
☐ not in compliance with

Standard of Practice 9.2

### Summarize the basis for this Finding/Deficiencies Identified:

SIGM is in FULL COMPLIANCE with Standard of Practice 9.2: Make appropriate operational and environmental information regarding cyanide available to stakeholders.

SIGM has developed written descriptions of how their activities are conducted and how cyanide is managed. A summarised version of these is available to communities and other stakeholders.

An overview of how cyanide is managed at SIGM has been presented in poster and is displayed at community events. SIGM has made the cyanide information poster available for stakeholders.

There is not a significant percentage of the local population (or identified stakeholders) that is illiterate; the spoken and written language is English. The cyanide management poster is written in English. Most stakeholder engagement is delivered verbally at community events.

SIGM makes information publicly available on confirmed cyanide release and cyanide exposure incidents if they occur. There have been no cyanide release or cyanide exposure incidents in the reporting period.

Cyanide exposure incidents resulting in hospitalization or fatality are considered a Serious Injury under the Mines Safety and Inspection Act 1994 (s.76) and Regulations and reported to the Department of Mines, Industry Regulation and Safety (DMIRS). Information reported to DMIRS regarding safety incidents (including cyanide exposure) is publicly posted on the Safety Regulation System (SRS) portal however the site at which the incident occurred is not identified.

Cyanide exposure incidents are publicly reported by Gold Fields within the Integrated Annual Report (IAR) under Strategic Pillar 1. For the most recent Integrated Annual Report (2023) this is under 'Building a safe and respectful workplace' on page 39 (<https://www.goldfields.com/pdf/investors/integrated-annual-reports/2023/iar-2023-interactive.pdf>). This includes risks to employees, contractors, or stakeholders. If an event were to occur, it would be identified as a cyanide incident, included in the statistics, and a brief incident description would be provided including the site location.

Cyanide releases are reported as an environmental incident to the Department of Mines, Industry Regulation and Safety (DMIRS), and to the Department of Water and Environmental

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Regulation (DWER) and are included in Annual Environment Reports. This includes:

- cyanide releases off the mine site requiring response or remediation;
- cyanide releases on or off the mine site resulting in significant adverse effects to health or the environment;
- cyanide releases on or off the mine site requiring reporting under applicable regulations; and
- cyanide releases that cause applicable limits for cyanide to be exceeded.

These reports are accessible to the public through the DMIRS website. Non-compliance of licence conditions including breaches of cyanide limits specified in the DWER Licence are required to be reported to DWER no later than 5 pm of the next working day.

DWER Annual Environmental Reports are accessible to the public via the DWER Licences and Works Approvals web page. Any non-compliances with the licence conditions are included in Section E of the report.

Cyanide releases are also publicly reported under Strategic Pillar 2 of the Gold Fields Limited Integrated Annual Report which includes incident descriptions. Cyanide releases are also publicly reported under Strategic Pillar 2 of the Gold Fields Limited Integrated Annual Report which includes incident descriptions. For the most recent Integrated Annual Report (2023) this is under 'Environmental Stewardship' on page 67

(<https://www.goldfields.com/pdf/investors/integrated-annual-reports/2023/iar-2023-interactive.pdf>).

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