

MINE SITE ASSESSMENT PUBLIC SUMMARY REPORT

MINE SITE

Sishen Mine

OPERATING COMPANY

Sishen Iron Ore Company

COUNTRY OF OPERATION

South Africa

26 MARCH 2024

Acknowledgements

IRMA believes that third-party, independent audits are most credible when there is robust participation not only from participating mines, but also from workers and stakeholders, particularly those from affected communities.

Outside stakeholders are not remunerated for their participation, and willingly give their time to provide perspectives and information on mine site performance. IRMA would like to recognize Sishen Mine and plant workers, governmental representatives, and members of affected communities for their participation in this audit.

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Audit Details

Name of Mine:	Sishen Mine
Operating Company:	Sishen Iron Ore Company
Mine Owner:	Anglo American
Country of Operation:	South Africa
Mined Material(s):	Iron Ore
# Employees / contractors:	4,589 employees / 6,026 contractors at the time of audit
IRMA audit page	https://responsiblemining.net/sishen
Audit Type:	Initial IRMA Verification Audit
Audit Dates:	Stage 1: 20 August – 27 October 2021 Stage 1.5 virtual: 30 November – 3 December 2021 Stage 2: 15 – 18 March 2022 Follow-up Assessment: 11 - 14 April 2023
Audit Team:	Lead Auditor (1) Social Auditors (2) Environmental, Health, and Safety Auditors (2) Support team members (3)
Audit Firm Declaration:	<p>✓ The findings in this report are based on an objective evaluation of evidence (through review of documents; first-hand observations at the mine site; and interviews with mine staff, workers and stakeholders) as presented during the Stage 1 and Stage 2 audit activities.</p> <p>✓ The audit team members were deemed to have no conflicts of interest with the mine.</p> <p>✓ The audit team members were professional, ethical, objective and truthful in their conduct of audit activities.</p> <p>✓ The information in this report is accurate according to the best knowledge of the auditors who contributed to the report.</p>
Scope of Audit	Sishen Iron Ore Facility
IRMA Standard Version:	IRMA Standard for Responsible Mining, v.1.0 (June 2018)
Audit Firm	ERM CVS
Certification Decision date:	26 March 2024
IRMA Reference Number:	IRMA-STD-ERM-001-V-3454.IRMA1

1. Mine Site Overview

1.1. Overview of Location

Sishen Mine is located within the Gamagara Local Municipality, in Northern Cape Province, South Africa. The Mine is surrounded by agricultural land and land used for game farming, and the town of Kathu. While the Kathu town center is approximately 6 km from the Mine, there is a residential area of Kathu known as Sesheng, located adjacent to the northeast mine boundary, and comprised of mine houses. Kathu has a population of approximately 11,510 people (2011). The small town of Dingleton (11,034 people in 2011) was previously located adjacent to the western boundary of the Sishen Mine.¹

Due to the proximity to the Mine, and plans to expand the Sishen Mine, Anglo American undertook a process to relocate the community. Between 2017 and 2018, Sishen relocated the 71 households of the Dingleton to a newly established suburb of Kathu named Siyathemba. There is a low-income settlement known as Mapoteng adjacent to Sesheng and the Mine along the northeast mine boundary. Mapoteng consists of informal homes and government provided homes, known as the Reconstruction and Development Program houses.²

The town of Kimberley approximately 200 km southeast of Sishen is the nearest economic hub, with a population of 225,160 (2011). The small town of Kuruman (13,057 people in 2011) is 50 km northeast of the Mine.³

Sishen Mine is situated in the Kalahari Desert within the Savanna Biome, the largest biome within southern Africa. Savanna is characterized by a grassy ground layer and a distinct upper layer of woody plants. Camel Thorn trees (*Acacia erioloba*) occur around the Sishen Mine. There are no perennial rivers in the area. The Gamagara River is located on the southern border of the site. The river is ephemeral having no dry-weather flow and only flows after heavy rains in the catchment.⁴

¹ StatsSA, 2011, Statistics South Africa, 2011 Census.

² Nomad Socio-Economic Management and Consultancy, 2020, Sishen Iron Ore Mine Socio-economic Impact Assessment.

³ StatsSA, 2011, Statistics South Africa, 2011 Census.

⁴ AGES, 2011, Environmental Impact Assessment Report: Sishen Iron Ore Mine: Sishen Iron Ore Mine Complex: Phase 1



1.2. Overview of Operation

Sishen Mine is operated by the Sishen Iron Ore Company; an entity managed by Anglo American. The current site boundary spans 43,447.44 hectares. Operations began in 1956.

Sishen Mine produces ore from opencast extraction methods involving drilling, blasting, and truck and shovel open-pit operations. There are 13 active pits where haematite is mined directly from the pit as well as designated buffer stockpiles. Following extraction, ore is transported to the beneficiation plant to be crushed, screened, and beneficiated through dense media separation and jig technology. The beneficiation plant receives 20 percent ore and 80 percent feed from buffer stockpiles.

The tailings facilities include Slimes Dam, East Protea Slimes Dam, and Slimes Dam West, which all have a water holding capacity greater than 50,000 cubic meters and walls greater than 5 meters in height. The tailings facilities were constructed using the upstream method of construction. The integrity monitoring process includes visual inspections, surveillance, deposition and material properties, volumes, densities, water-use license, freeboard, piezometers, slope stability, rainfall, and compliance audits. Additional associated facilities include waste rock disposal areas and transportation corridors. In 2020, the mine produced 36.2 million tons of iron ore. The final shipment of iron ore is sent out by a conveyor to the load-out terminal of the mine and then transported via rail to the Saldanha Bay Port. The mine operates 24 hours a day, seven days a week, with an average of 382 workers per shift. In 2021, the number of full-time and seasonal employees combined at Sishen Mine was 4,589, and of those, 1,046 were female, 3,543 were male, 514 were seasonal workers, and 4,175 were full-time. That same year, there were a total of 6,026 full-time contract workers at Sishen Mine, and of those, 1,009 were female and 5,017 were male. The primary languages spoken by workers are English, Setswana, and Afrikaans.

1.2.1. Scope of Activities and Facilities Included In Audit

The scope of this IRMA Assessment is for the Sishen Iron Ore Mine, including:

- 13 active open pits
- 24 waste rock dumps including stockpiles
- Four tailings' facilities
- Beneficiation plant
- Ancillary infrastructure

2. Mine Site Assessment Process

2.1. Overview of IRMA Process

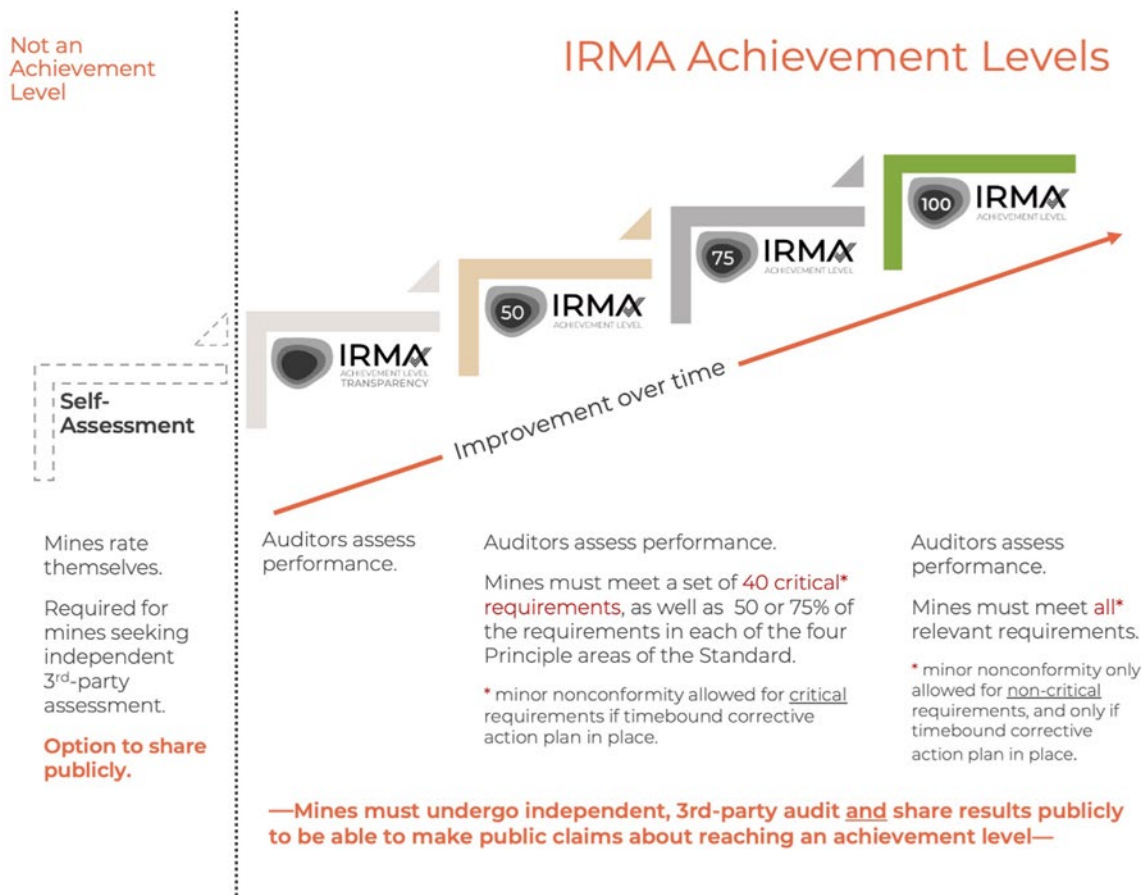
The mine site assessment process begins with mines completing a self-assessment and uploading evidence into an online tool (Mine Measure). When the self-assessment has been completed, the independent, third-party assessment may begin.

Stage 1 of the independent, third-party assessment is a desk review carried out by an IRMA-approved Audit Firm, which puts together a team of auditors to review the self-assessment ratings and evidence provided by the mine site. During this stage of the audit additional information may be requested by auditors. Mines may also choose to take time to make improvements to practices prior to commencement of Stage 2.

Stage 2 is the on-site visit, which includes facility and site-based observations, additional review of materials and interviews with mine site personnel, workers, stakeholders, and meetings with affected communities.

Based on observations, interviews and information evaluated during Stage 1 and Stage 2, auditors determine if mines are fully, substantially, partially, or not meeting all of the IRMA Standard requirements relevant at the mine site. The decision regarding a mine site's achievement level is made by the Audit Firm.

IRMA recognizes four levels of achievement. For a complete description of the assessment process and achievement levels, see IRMA's Audit Firm Requirements, available on [IRMA's web site](#).



2.1.1. Scope and Limitation of Audits

Within the IRMA system, independent, third-party assessment is a process by which mines are assessed against the IRMA Standard for Responsible Mining by external auditors. Audits are conducted by auditors who: have undergone IRMA training, meet IRMA competency requirements and have been deemed to have no conflicts-of-interest with the mine site under assessment.

Audits are carried out in general conformance with established industry practice for independent audits (i.e., ISO 19011). In addition to document review, audits include on-site visits of relevant facilities, review of records, and interviews with site personnel and relevant stakeholders.

Auditor evaluations are based upon the application of scientific principles and professional judgment to certain facts with resultant subjective interpretations. Professional judgments expressed in auditor comments are based on the facts available at the time of the audit within the limits of the existing data, scope of work, budget, and schedule.

Audit evidence is based on samples of available information. Therefore, there is an element of uncertainty in auditing, and those acting upon the audit conclusions should be aware of this uncertainty.

2.1.2. IRMA Complaints Process

If any IRMA stakeholder wishes to file a complaint related to the mine site assessment process, they may do by visiting the IRMA website. Details on the complaints process can be found in IRMA's Issues Resolution Procedure.

2.2. Audit Process and Timeline

- Anglo American completed the initial self-assessment for Sishen Mine in June and July 2021.
- ERM CVS carried out an initial Stage 1 desktop audit from 20 August – 27 October 2021.
- ERM CVS carried out a limited scope virtual audit from 30 November to 3 December 2021, as the planned Stage 2 assessment could not go ahead due to disruptions caused by the COVID-19 Omicron outbreak.
- ERM CVS conducted a Stage 2 on-site audit from 15 – 18 March 2022.
- Sishen elected to use an IRMA-allowed early corrective action period to address certain shortfalls identified in the audit, which then required verification by ERM CVS.
- ERM CVS conducted a follow-up assessment from 11 – 14 April 2023 to verify the mine's corrective actions.

The on-site audit included a series of interviews with mine staff (workers and management team), relevant community representatives, governmental agencies (see Section 2.3), documentation review, visits to operational areas (see Section 2.4), and communities.

2.3. Stakeholder Engagement

IRMA requires that stakeholders are engaged as part of the mine site assessment process. Audits are announced by IRMA and certification bodies, and prior to the on-site audit there is additional outreach carried out by certification bodies.

Thirty days prior to the on-site assessment, the Stage 2 Assessment was announced on the ERM CVS website, IRMA's website, and through IRMA's free email distribution newsletter. The announcement included an invitation to stakeholders to participate in the assessment. Further, ERM CVS prepared a similar announcement in Setswana that was distributed via email to representatives in the surrounding communities and posted on the ERM CVS website. Community representative contact details were obtained from the Sishen stakeholder database. Sishen placed ERM CVS's announcement on community notice boards and sent it to local media to inform stakeholders about the audit and their opportunity to participate in the audit process.

2.3.1. Written Comments/Inquiries

ERM CVS received a number of requests to be kept informed about the assessment from community members. ERM CVS will provide notification of availability of this report.

2.3.2. Mine Staff

The following individuals were interviewed as subject matter experts in one or more topics relevant to the IRMA standard. The positions listed were those held at the time of the audit and include individuals from the Stage 2 and follow-up audits.

Table 1. Mine Staff Interviews

Position/Role
Compliance Implementation Specialist (Acting)
Specialist SED
SED Officer
Section Manager Environment Specialist Social Performance
Specialist Social Performance
Section Manager Hygiene & Fire Prevention Specialist Social Performance
Section Manager Environment
Section Manager Rehabilitation & Land Management
Human Resources Manager (Acting)
MOP Specialist
Principal Mineral Rights
Section Manager Security
Section Manager Hygiene & Fire Prevention
Section Manager Environment, Section Manager Rehabilitation & Land Management
Section Manager Hygiene & Fire Prevention, Superintendent OMP
Senior Project Manager
Principal Mineral Rights, Section Manager Environment
Section Manager Environment, Specialist Social Performance

2.3.3. Workers/Contractors

ERM CVS went through a process to select workers to interview, and once interviewees were selected, Anglo American assisted with logistics to ensure that workers were available for interviews at the requested times and that the interview location was accessible to workers at the time of the interview. Interviews included employees and contractors from several different departments, chosen to represent different age groups; genders; years of experience; work groups, and operational, administrative, health care or union responsibilities. Topics discussed included working conditions, with specific attention on women and vulnerable groups, freedom of association, health, and safety, etc. The engagements took place on-site at various locations in designated conference rooms and offices. The worker interviews were conducted without Anglo American management personnel present. Supervisory staff were interviewed individually. However, they did not participate in any group meetings so as not to bias or influence employee responses.

Stage 1.5 Worker Interviews

During the Stage 1.5 Virtual Assessment, ERM CVS conducted 3 individual and 2 group worker interviews virtually. Kolomela site representatives set up the calls in a small conference room and provided support to those joining the call to make sure they were connected with ERM CVS before leaving the room.

Table 2. Stage 1.5 Workers Interviews

Date	Meeting Type	Number of Attendees	Female / Male	Role/Position
1 December 2021	Group	7	4 M 3F	Various
1 December 2021	Individual	1	1 M	Welder
1 December 2021	Individual	1	1 F	SHE Representative
1 December 2021	Group	2	1 M 1 F	Various
1 December 2021	Individual	1	1 M	Trainee
Total		12		

Stage 2 Worker Interviews

During Stage 2, ERM CVS conducted 19 individual employee and contractor interviews, and 4 group interviews (two to six people), for a total of 37 workers interviewed through the scheduled process. Scheduled worker interviews were supplemented by additional impromptu interviews with individuals or groups in various mine work sites during the Environmental, Health, and Safety portion of the audit process. An additional 22 workers were interviewed through this process.

Table 3. Stage 2 Scheduled Workers Interviews

Date	Meeting Type	Number of Attendees	Female/ Male	Role/Position
16 March 2022	Worker group: contractors	7	4 F, 3M	Various
16 March 2022	Worker group: contractors	7	7M	Various
16 March 2022	Worker group: mix	2	2M	Various
16 March 2022	Worker group: mix	2	2M	Various
17 March 2022	Individual	1	1M	
17 March 2022	Individual	1	1M	Fitter Artisan
17 March 2022	Individual	1	1M	HR Mining
17 March 2022	Individual	1	1 F	HR and CA
17 March 2022	Individual	1	1 F	Commercial

Date	Meeting Type	Number of Attendees	Female/ Male	Role/Position
17 March 2022	Individual	1	1M	KHAYA Mnandi (Contractor)
17 March 2022	Individual	1	1M	KHAYA Mnandi (Contractor)
17 March 2022	Individual	1	1 F	Welder
17 March 2022	Individual	1	1M	BI Specialist
17 March 2022	Individual	1	1 F	Line Advisor
17 March 2022	Individual	1	1M	Service Supervisor Contractor (Sliver back construction)
17 March 2022	Individual	1	1M	Service General worker (Sliver back construction)
17 March 2022	Individual	1	1M	Service General worker (Sliver back construction)
17 March 2022	Individual	1	1 F	General worker
17 March 2022	Individual	1	1 F	General worker
17 March 2022	Individual	1	1M	General worker
17 March 2022	Individual	1	1M	General worker
17 March 2022	Individual	1	1 F	Environmental technician
17 March 2022	Individual	1	1M	Environmental intern
Total		37		

Table 4. Stage 2 In-field Worker Interviews

Date	Meeting Type	Number of Attendees	Female/ Male	Role/Position
16 March 2022	In-field interview	2	1 F, 1 not specified	Various
16 March 2022	In-field interview	1	1 F	Various
16 March 2022	In-field interview: group	4	4 M	Various
16 March 2022	In-field interview: group	2	2 M	Various
16 March 2022	In-field interview: group	3	3 M	Various
16 March 2022	In-field interview: group	2	1 F, 1 M	Various
17 March 2022	In-field interview: group	4	4 F	Various
17 March 2022	In-field interview: group	4	4 M	Various
Total		22		

In total, ERM CVS conducted 49 scheduled interviews during Stage 1.5 and Stage 2. Site logistics created a barrier to meeting the IRMA expectation of 55 worker interviews (based on the size of the site) during the Stage 2 assessment. In planning for worker interviews the site provided auditors with a central location in an administrative building for workers to report

to, however, in some instances workers did not show up for scheduled interviews do to logistical and time constraints.

In some instances, it was unclear whether the coordination between Human Resources staff and supervisors was adequate to ensure workers were released from their duties, or whether the intention of the interview had been clearly communicated. This was further impacted by stringent social distancing restrictions due to the COVID-19 pandemic. These barriers were raised early in the Stage 2 audit process and to some degree affected both the worker and external stakeholder interview process.

Despite these constraints, every effort was made to maintain the integrity and rigor of the audit. The audit team will broaden their stakeholder sampling during the surveillance audit to ensure a comprehensive examination of relevant perspectives.

2.3.4. Government Agencies

ERM CVS conducted interviews with government agency representatives identified as having authority over or a relationship with Sishen Mine. The interviews were conducted without Sishen mining personnel present.

Table 5. Government Agency Interviews

Government Institution

Joe Morolong Local Municipality - Community Coordinator

2.3.5. Participating Communities and NGOs

To identify stakeholders, interested and vulnerable groups, and key informants to interview during the on-site audit process, social specialists undertook a media scan, consulted with Sishen social performance team and other department managers, and reviewed the stakeholder database provided by the site. Prior to the on-site audit, ERM CVS social auditors corresponded with site managers and held virtual conferences to better understand the site's community relations and issues being encountered.

During the Stage 2 audit, Sishen provided a brief orientation vehicle tour of the area surrounding the Mine, including informal settlements and projects that had been supported by the mine. During the Stage 2 audit, ERM CVS conducted community meetings with several communities near the mine or with the potential to be impacted by the mine including resettled communities and farmers associations. The stakeholders were selected based on the stakeholder mapping and the outcomes of the Stage 1 audit. Meetings were held in or near the communities in meeting locations typically used by the community to facilitate ease of access. Where required, transport to meeting sites was provided by Sishen. Meetings were held in the locations identified below and varied in size with one to four community representatives, to discussions with more than ten participants. Communication and organization of the meetings was facilitated by Sishen mining personnel but were conducted by ERM CVS auditors without Sishen mining personnel present.

Table 6. Interviews with the Representatives of Local Communities and NGOs

Community, NGO Name	Location	Total Number of Attendees	Female/ Male
Dingleton Community	SIOC Community Development Trust	2	2 M
Business forum, farmers, traditional leaders' representatives (government representatives)	SIOC Community Development Trust	6	6 M
Farmer/landowner	SIOC Community Development Trust	2	2 M
Group interviews with various stakeholders	SIOC Community Development Trust	25	14 M 11 F
Siyathemba Community Representatives	SIOC Community Development Trust	8	4 M 4 F
Mapoteng Community Members	SIOC Community Development Trust	9	8 M 1 F
Fire Department	SIOC Community Development Trust	1	1 M
Total		53	

2.4. Summary of Mine Facilities and Other Areas Visited

The following areas were visited or observed during the on-site visit:

Table 6. Areas Visited During the On-Site Audit

Operational areas	Chemicals Handling and Storage Areas Mine Operations / Pit Areas On-site offices Tailings Facility
Other areas visited (e.g., downstream watercourses, off-site facilities)	Kathu hospital Kathu Forest
Surrounding Communities	Kathu Community Sesheng Siyathemba Mapotana

3. Summary of Findings

Detailed audit findings on a requirement-by-requirement basis can be found in Appendix A.

3.1. Audit Outcome

The site is recognized as having achieved the level of IRMA 75 based on the performance recorded during the Stage 1 and Stage 2 audits.

3.2. Scores by IRMA Standard Principle and Chapter

The table below provides a summary of the chapter-specific outcomes, and overall average scores per principle. Note, these scores are weighted based on the number of relevant requirements in each chapter.

	Chapter Relevant*	Actual Score	Possible Score	Percent Score
Principle 1: Business Integrity		95.5	116	82%
Chapter 1.1—Legal Compliance	Yes	10	16	63%
Chapter 1.2—Community and Stakeholder Engagement	Yes	26	28	93%
Chapter 1.3—Human Rights Due Diligence	Yes	26.5	28	95%
Chapter 1.4—Complaints Mechanism/Access to Remedy	Yes	20	22	91%
Chapter 1.5—Revenue and Payments Transparency	Yes	13	22	59%
Principle 2: Planning for Positive Legacies		143	182	79%
Chapter 2.1—Environmental and Social Impact Assessment and Management	Yes	44.5	56	79%
Chapter 2.2—Free, Prior and Informed Consent	No	--	--	--
Chapter 2.3—Community Support and Benefits	Yes	14	16	88%
Chapter 2.4—Resettlement	Yes	45	48	94%
Chapter 2.5—Emergency Preparedness and Response	Yes	11.5	12	96%
Chapter 2.6—Planning/Financing Reclamation & Closure	Yes	28	50	56%
Principle 3: Social Responsibility		168	186	90%
Chapter 3.1—Fair Labor and Terms of Work	Yes	62.5	64	98%
Chapter 3.2—Occupational Health and Safety	Yes	42	46	91%
Chapter 3.3—Community Health and Safety	Yes	15.5	22	70%
Chapter 3.4—Conflict-Affected and High-Risk Areas	No	--	--	--
Chapter 3.5—Security Arrangements	Yes	25.5	28	91%

Chapter 3.6—Artisanal and Small-Scale Mining	No	--	--t	--
Chapter 3.7—Cultural Heritage	Yes	22.5	26	87%
Principle 4: Environmental Responsibility		133	172	77.0%
Chapter 4.1—Waste and Materials Management	Yes	37.5	56	67%
Chapter 4.2—Water Management	Yes	28.5	38	75%
Chapter 4.3—Air Quality	Yes	15	18	83%
Chapter 4.4—Noise and Vibration	Yes	17	18	94%
Chapter 4.5—Greenhouse Gas Emissions	Yes	14	14	100%
Chapter 4.6—Biodiversity, Eco. Serv. And Protected Areas	Yes	21	28	75%
Chapter 4.7—Cyanide Management	No	--	--	--
Chapter 4.8—Mercury Management	No	--	--	--

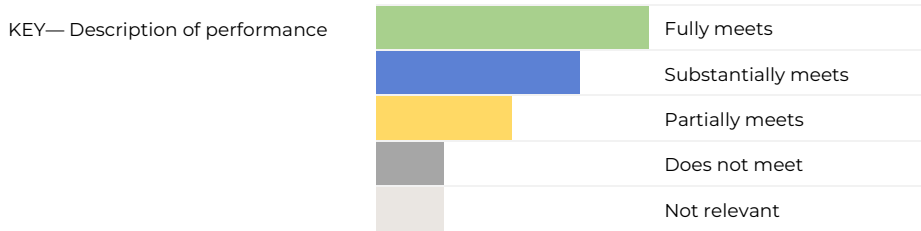
* Chapters are marked as not relevant if auditors have verified that the issues addressed in the chapter are not applicable at the mine site. For example, if the mine can demonstrate that there is no artisanal and small-scale mining (ASM) occurring near the mine, and the mine does not source materials from artisanal and small-scale mining operations then Chapter 3.6 would be marked as not relevant.

Chapters deemed Not Relevant do not factor into the Principal Scores.






3.3. Performance on Critical Requirements

Critical requirements consist of 40 requirements identified by the IRMA Board of Directors as core requirements that any mine site claiming to be following good mining practices should be meeting. Mines seeking to achieve full certification (IRMA 100) mines must fully meet all critical requirements, and mines achieving IRMA 50 or IRMA 75 must substantially meet all critical requirements, demonstrate progress over time, and fully meet all critical requirements within specified time frames.








3.3.1. Snapshot of Performance on 40 Critical Requirements











3.3.2. Performance on 40 Critical Requirements.

RATING LEGEND	
Description of performance	 Fully meets
	 Substantially meets
	 Partially meets
	 Does not meet
	 Not relevant



Principle 1: Business Integrity

1.1.1.1	The operating company shall comply with all applicable host country laws in relation to the mining project.	
1.2.2.2.	The mine fosters two-way dialogue and meaningful engagement with stakeholders	
1.3.1.1.	The operating company has a policy in place that acknowledges its responsibility to respect all internationally recognized human rights.	
1.3.2.1.	and an ongoing process to identify and assess potential and actual human rights impacts from mining project activities and business relationships.	
1.3.3.3.	The operating company is taking steps to remediate any known impacts on human rights caused by the mine.	
1.4.1.1.	Stakeholders have access to operational-level mechanisms that allow them to raise and seek resolution or remedy for complaints and grievances that may occur in relation to the mining operation.	
1.5.5.1.	The operating company has developed, documented and implemented policies and procedures that prohibit bribery and other forms of corruption by employees and contractors.	

Principle 2: Planning for Positive Legacies

2.1.3.1	The operating company has carried out a process to identify potential impacts (social and environmental) of the mining project.	
2.2.2.2.	New mine sites have obtained the FPIC of indigenous peoples, and existing mines either have obtained FPIC or can demonstrate that they are operating in a manner that supports positive relationships with affected indigenous peoples and provides remedies for past impacts on indigenous peoples' rights and interests.	
2.4.7.1.	If resettlement has occurred, the mine monitors and evaluates its implementation and takes corrective actions until the provisions of resettlement action plans and/or livelihood restoration plans have been met.	
2.5.1.1.	All operations related to the mining project shall have an emergency response plan	
2.5.2.1.	and there is community participation in emergency response planning exercises.	
2.6.2.1.	Reclamation and closure plans are compatible with protection of human health and the environment,	
2.6.2.6.	and are available to stakeholders.	
2.6.4.1.	Financial surety instruments are in place for mine closure and post-closure (including reclamation, water treatment and monitoring).	

Principle 3: Social Responsibility

3.1.2.1	Workers' freedom of association is respected.	
3.1.3.3.	Measures are in place to prevent and address harassment, intimidation, and/or exploitation, especially in regard to female workers.	

3.1.5.1.	Workers have access to operational-level mechanisms that allows them to raise and seek resolution or remedy for complaints and grievances that may occur in relation to workplace-related issues.	✓
3.1.7.2.	No children (i.e., persons under the age of 18) are employed to do hazardous work	✓
3.1.7.3.	and no children under the age of 15 are employed to do non-hazardous work.	✓
3.1.8.1.	There is no forced labor at the mine site or used by the operating company.	✓
3.2.4.1.a, b	Workers are informed of hazards associated with their work, the health risks involved and relevant preventive and protective measures.	●
3.3.1.1.	The risks to community health and safety posed by the mining operation are evaluated and mitigated.	●
3.4.2.1.	If operating in a conflict-affected or high-risk area, the mine has committed to not support any parties that contribute to conflict or the infringement of human rights.	—
3.5.1.2.	The mine has policy and procedures in place that align with best practices to limit the use of force and firearms by security personnel.	✓

Principle 4: Environmental Responsibility

4.1.4.1.	A risk assessment has been done to identify chemical and physical risks associated with existing mine waste (including tailings) facilities.	●
4.1.5.1.	Mine waste facility design and mitigation of identified risks shall be consistent with best available technologies and best available/applicable practices.	●
4.1.5.6.	The operating company regularly evaluates the performance of mine waste facilities to assess the effectiveness of risk management measures, including critical controls for high consequence facilities.	●
4.1.8.1.	The mine does not use riverine, submarine or lake disposal for mine wastes.	✓
4.2.4.1.a-e	Water quality and quantity are being monitored at the mine site	✓
4.2.4.4	and adverse impacts resulting from the mining operation are being mitigated.	●
4.3.2.1.	When significant potential impacts on air quality are identified, the mine develops measures to avoid and minimize adverse impacts on air quality, and documents them in an air quality management plan.	✓
4.5.1.1.	There is a policy being implemented that includes targets for reducing greenhouse gas emissions.	✓
4.6.2.1.	The mine has carried out screening to evaluate its potential impacts on biodiversity, ecosystem services and protected areas	●
4.6.4.1.	and these impacts are being mitigated and minimized.	—
4.6.5.3.	New mines are not located in or adversely affect World Heritage Sites (WHS), areas on a State Party's official Tentative List for WHS Inscription, IUCN protected area management categories I-III, or core areas of UNESCO biosphere reserves	—
4.6.5.4.	and existing mines located in those areas ensure that activities during the remaining mine life cycle will not permanently and materially damage the integrity of the special values for which the area was designated or recognized.	—
4.7.1.1.	Gold or silver mines using cyanide are certified as complying with the Cyanide Code.	—
4.8.2.2.	Mercury wastes are not sold or given to artisanal or small-scale miners, and are otherwise sold only for end uses covered in the Minamata Convention or disposed of in regulated repositories.	—
4.8.2.3.	Mercury wastes are not permanently stored on site without adequate safeguards.	—

4. Next Steps

4.1. Corrective Action Plans

In the IRMA system, mines are allowed a 12-month corrective action period if they are interested in addressing non-conformities with critical or other requirements to reach a higher achievement level or gain recognition for improved performance. This enables them to implement changes and have them verified by auditors without waiting until the surveillance or recertification audit.

Following the Stage 2 Assessment, the Sishen Mine prepared a Corrective Action Plan to address major non-conformities with critical and other requirements, with the goal of improving their overall achievement level. ERM CVS conducted a follow-up assessment to verify the implementation of corrective actions to improve performance against the Critical Requirements in April 2023. The findings of the follow-up assessment are included in this Report.

Sishen is expanding the Corrective Action Plan to address additional performance areas, with the goal of improving performance during the formal 3-year audit cycle. A copy of the plan is provided as Appendix B.

4.2. Disclosure of Summary Audit Report

IRMA requires that all mines that undergo independent, third-party auditing disclose a summary audit report within 12 months of an audit to maintain good standing in the IRMA system.

Sishen's public audit report will be posted on the IRMA web site. Sishen will work with IRMA to make a coordinated press release with the Stage 2 audit result.

4.3. Timing of Future Audits

The IRMA system is a three-year cycle, meaning that an operation goes through a reverification assessment every three years, with an interim surveillance assessment as required within 18 months of publication of each full assessment. Sishen's surveillance audit will take place no more than 18 months after the initial IRMA Assessment Report is published, (this Assessment).


APPENDIX A—Results by Requirement

Principle 1: Business Integrity

RATING LEGEND

Description of performance

	Fully meets
	Substantially meets
	Partially meets
	Does not meet
	Not relevant

Requirement #	Requirement Text	Rating	Basis for rating
Chapter 1.1—Legal Compliance			
1.1.1.1.	Critical The operating company shall comply with all applicable host country laws in relation to the mining project.		<p>As part of the organization’s management systems, a legal register has been developed that identifies all regulatory requirements Sishen Mine is required to be compliant with. All permits and conditions are tracked in the site’s compliance registry, which includes an integrated reminder system with escalation to the applicable manager. The organization has also implemented a permit tracking system, summarizing and reporting on permit status, renewal schedule, expiration schedule and overdue permits. The system includes identification of permit’s criticality, position in the permitting process flow and the mine’s overall compliance status.</p> <p>The following audit reports were submitted: Health and Safety Legal Compliance Report 2020, Atmospheric Emission License 2020, Internal Financial Controls Audit 2020, Review of Life of Mine Schedule 2020, Environmental Authorizations, Environmental Management Programs 2020 audit. No compliance concerns or</p>

Requirement #	Requirement Text	Rating	Basis for rating
			gaps were identified by the audit team that have not been addressed by the aforementioned compliance and permit tracking systems.
1.1.2.1.	The operating company shall comply with whichever provides the greatest social and/or environmental protections of host country law or IRMA requirements. If complying fully with an IRMA requirement would require the operating company to break host country law then the company shall endeavor to meet the intent of the IRMA requirement to the extent feasible without violating the law.	☑	No IRMA requirements were found to be in conflict with the host country's laws.
1.1.3.1.	If non-compliance with a host country law has taken place, the operating company shall be able to demonstrate that timely and effective action was taken to remedy the non-compliance and to prevent further non-compliances from recurring.	⊕	Reference 1.1.1.1 – all applicable legislation has not been identified by the site. An Audit report conducted for Mine Health and Safety Legal Compliance together with an action plan for non-conformances. No dates for completion were shown and it could also not be established whether the action taken was effective. The 2020 Water Use License Action plan did not show any planned completion dates or demonstrate effective implementation of the remedies.
1.1.4.1.	The operating company shall demonstrate that it takes appropriate steps to ensure compliance with the IRMA Standard by contractors engaged in activities relevant to the mining project.	⊗	The site provided an Anglo America Group policy and reported that they subscribe to the policy. The site reported that requirements for contractors are in place, and these are audited, however no alignment with the IRMA contractor standard has been implemented.
1.1.5.1.	The operating company shall maintain records and documentation sufficient to authenticate and demonstrate compliance and/or non-compliance with host country laws and the IRMA Standard.	⊕	Sishen appoints third party companies to conduct annual audits. The documentation submitted showed the following audits: Health and Safety Legal Compliance Report 2020, Atmospheric Emission License 2020, Internal Financial Controls Audit 2020, Review of Life of Mine Schedule 2020, Environmental Authorizations, Environmental Management Programs 2020 audit. T ISOMETRICS is an electronic platform that tracks licenses, certificates, authorizations and permits. Sishen is currently not measuring compliance with IRMA standards or all the host country laws.




Requirement #	Requirement Text	Rating	Basis for rating
1.1.5.2.	Records related to compliance and/or non-compliance with host country laws shall be made available to IRMA auditors, and shall include descriptions of non-compliance events and ongoing and final investigations, allegations, discussions, and final remedies.	⊗	The 24ecognh and Safety Action plan 2020 and the Water Use License Plan 2020 were submitted for review. The plans were reviewed and found to not meet the requirements as set out by IRMA.
1.1.5.3.	Upon request, operating companies shall provide stakeholders with a summary of the mining project's regulatory non-compliance issues that are publicly available.	⊙	The site reported that no requests for publicly available legal non-conformances have been received from stakeholders. Should such a request be received the site reported that the information will be made available to the requesting stakeholder.
1.1.5.4.	Where the operating company claims that records or documentation contains confidential business information, it shall: <ul style="list-style-type: none"> a. Provide to auditors a general description of the confidential material and an explanation of the reasons for classifying the information as confidential; and b. If a part of a document is confidential, only that confidential part shall be redacted, allowing for the release of non-confidential information. 	⊙	No documents that were requested by auditors containing business information were withheld during the assessment.
Chapter 1.2—Community and Stakeholder Engagement			
1.2.1.1.	The operating company shall undertake identification and analysis of the range of groups and individuals, including community members, rights holders and others (hereafter referred to collectively as "stakeholders") who may be affected by or interested in the company's mining-related activities.	⊙	The site is guided by corporate-level policies aligned to the IRMA Standard that require Anglo American mines undertake meaningful engagement with affected stakeholders, and corporate guidance is provided for stakeholder identification and analysis. Stakeholder Mapping v05_30062021 demonstrates that the site undertook a stakeholder identification and mapping exercise in 2021.
1.2.1.2.	A stakeholder engagement plan scaled to the mining project's risks and impacts and stage of development	⊙	Anglo American corporate policies and guidance require each site to develop a Stakeholder Engagement Plan. The site has in place a Stakeholder Engagement




Requirement #	Requirement Text	Rating	Basis for rating
	shall be developed, implemented and updated as necessary.		<p>Plan, dated 2020/2021. Feedback on engagement outcomes and “Head Quarter Month Report June 2021” provide evidence of the Stakeholder Engagement Plan implementation.</p> <p>Evidence presented and observations during Stage 2 demonstrate that the Stakeholder Engagement Plan is being implemented.</p> <p>The Mine reported that the Stakeholder Engagement Plan will be updated in Q1 2022 and will take into consideration stakeholder feedback.</p>
1.2.1.3.	The operating company shall consult with stakeholders to design engagement processes that are accessible, inclusive and culturally appropriate, and shall demonstrate that continuous efforts are taken to understand and remove barriers to engagement for affected stakeholders (especially women, marginalized and vulnerable groups).	☑	<p>Anglo American corporate policies and guidance require stakeholder input be incorporated into the design of the Stakeholder Engagement Plan, and that engagement processes be inclusive and accessible.</p> <p>The site reported that they incorporated stakeholder feedback into the design of the stakeholder engagement plan through community perceptions surveys, feedback from stakeholder days and through feedback from the grievance logs.</p> <p>The site Stakeholder Engagement Plan includes the identification and analysis of vulnerable groups, and evidence provided demonstrates that vulnerability and barriers to engagement are considered in engagement planning and interactions.</p> <p>Based on evidence reviewed and stakeholder feedback, engagement is culturally appropriate and informed by stakeholder analysis, an understanding of the socioeconomic baseline and stakeholder feedback.</p> <p>The mine demonstrated that they engage with new stakeholders as they come forward. For example, Sishen is engaging with new self-identified Indigenous groups that have requested to engage with the mine.</p>
1.2.1.4.	The operating company shall demonstrate that efforts have been made to understand community dynamics in order to prevent or mitigate community conflicts that might otherwise occur as a result of company engagement processes.	☑	<p>The Stakeholder Engagement Plan provides a socioeconomic context for the mine, including insights on community dynamics and how the mine might be affecting these. The feedback provided in Kumba Social Way Pack I 31 March 2020 demonstrates ongoing efforts to understand community dynamics. Based on management interviews, it is evident that the Mine attempt to understand their stakeholders and their drivers, seeking to avoid potential conflict situations.</p> <p>Mine representatives noted that there have been instances where they have adjusted community engagement approaches based on feedback from stakeholders who did not feel represented by existing bodies.</p>

Requirement #	Requirement Text	Rating	Basis for rating
1.2.2.1.	Stakeholder engagement shall begin prior to or during mine planning, and be ongoing, throughout the life of the mine. (Note: existing mines do not need to demonstrate that engagement began prior to mine planning)	☑	<p>Anglo American corporate policies and guidance require each site to develop a Stakeholder Engagement Plan (SEP). The site has in place a Stakeholder Engagement Plan, dated 2020/2021. Feedback on engagement outcomes and “HQ Month Report June 2021” provide evidence of the Stakeholder Engagement Plan implementation.</p> <p>Evidence presented shows ongoing engagement and stakeholder interviews confirmed that they are engaged by the Mine, however some stakeholder noted that they would welcome more frequent engagement.</p>
1.2.2.2.	<p>Critical The operating company shall foster two-way dialogue and meaningful engagement with stakeholders by:</p> <ul style="list-style-type: none"> a. Providing relevant information to stakeholders in a timely manner; b. Including participation by site management and subject-matter experts when addressing concerns of significance to stakeholders; c. Engaging in a manner that is respectful, and free from manipulation, interference, coercion or intimidation; d. Soliciting feedback from stakeholders on issues relevant to them; and e. Providing stakeholders with feedback on how the company has taken their input into account. 	⬆	<p>The site has in place a Stakeholder Engagement Plan. The Stakeholder Engagement Plan, together with other evidence presented indicates that regular timely engagement is taking place.</p> <p>A. Evidence provided demonstrates attempts to engage stakeholders regularly and provide timely information (e.g., regular blasting notifications); however, some stakeholders expressed that the Mine is slow to provide feedback on issues raised.</p> <p>B. During the annual stakeholder day presentations, cross functional teams, and Small and Medium Sized Enterprise share feedback with stakeholders to address specific topics.</p> <p>C. Engagement is primarily conducted in English; however, site representatives noted that required translation services are provided. There was no evidence of manipulation or interference in the engagement process.</p> <p>D. The stakeholder perception survey, scope of work and previous surveys show the site is soliciting feedback from stakeholders.</p> <p>E. During interviews, stakeholders noted that they did not know how, or whether, their input is taken into consideration by the mine, and there was a sense that some stakeholders felt they were not being heard.</p>
1.2.2.3.	The operating company shall collaborate with stakeholders, including representatives from affected communities, to design and form stakeholder engagement mechanism(s) (e.g., a permanent advisory committee, or committees dedicated to specific issues), to provide stakeholder oversight of the mining project’s environmental and social performance, and/or input to the company on issues of concern to stakeholders.	⬆	Anglo American corporate policies and guidance require sites to establish a community engagement forum. A community engagement forum (CEF) is being established at the mine. Terms of Reference have been drafted for the community engagement forum and stakeholders will be identified to participate in the community engagement forum. The mine reported that the establishment of the community engagement forum has been a challenge because of complicated community dynamics, and the process is ongoing.

Requirement #	Requirement Text	Rating	Basis for rating
			Evidence shows that the mine has continued to engage with existing forums and committees who provided feedback on the Mine's performance, such as the Procurement Reform Working Group (PRWG), the GLERF, and the Farmers Forum.
1.2.2.4.	Engagement processes shall be accessible and culturally appropriate, and the operating company shall demonstrate that efforts have been made to include participation by women, men, and marginalized and vulnerable groups or their representatives.	☑	<p>The site Stakeholder Engagement Plan includes the identification and analysis of vulnerable groups, and information on how each group may have challenges accessing regular engagement activities.</p> <p>If a stakeholder is identified as vulnerable, a form is completed to understand the vulnerability and how this can be managed to improve inclusivity. For example, some engagements take place in different languages, and some letters go out in a local language, as well as in English. The mine makes efforts to reach vulnerable groups through the provision of transport for stakeholders from communities to Kathu, where most meetings take place.</p> <p>The mine shared an example of how "vulnerability" is considered in the grievance form, so that it's considered throughout the grievance redress process.</p>
1.2.2.5.	When stakeholder engagement processes depend substantially on community representatives, the operating company shall demonstrate that efforts have been made to confirm whether or not such persons represent the views and interests of affected community members and can be relied upon to faithfully communicate relevant information to them. If this is not the case, the operating company shall undertake additional engagement processes to enable more meaningful participation by and information sharing with the broader community.	☑	<p>Evidence indicates that the representatives (and their roles) for the Dingleton Resettlement and post resettlement were elected by stakeholders. The mine demonstrated that it takes measures to confirm that community representatives represent the community and that they engage with multiple groups to meet this objective.</p> <p>During management interviews, it was reported that the mine engaged the National Independent Electoral Commission to oversee the elections of representatives for the post-resettlement working group.</p> <p>Mine representatives noted instances where community groups have felt that existing groups do not represent their interests. Steps were taken to engage with additional groups to share information and facilitate participation. This was confirmed through community interviews, and it was confirmed that the two groups have now merged again.</p>
1.2.2.6.	The operating company shall document engagement processes, including, at minimum, names of participants, and input received from and company feedback provided to stakeholders.	☑	Evidence presented demonstrates that engagement activity is documented through notes, and that feedback is given to stakeholders. The mine uses Isometrics to document and track stakeholder engagement activities. Meeting notes, presentations and attendance registers are saved into the system.

Requirement #	Requirement Text	Rating	Basis for rating
1.2.2.7.	The operating company shall report back to affected communities and stakeholders on issues raised during engagement processes.	⬆️	<p>Evidence presented demonstrates that the site is reporting back to stakeholders through regular stakeholder days, radio broadcasts and newsletters. During stakeholder interviews, some stakeholders reported that they do not get consistent feedback from the Mine on issues raised.</p> <p>A grievance register maintains records of grievances raised and status of grievances and actions taken. Interviews with external stakeholders indicated a perceived lack of transparency and timely feedback.</p>
1.2.3.1.	The operating company shall offer to collaborate with stakeholders from affected communities to assess their capacity to effectively engage in consultations, studies, assessments, and the development of mitigation, monitoring and community development strategies. Where capacity gaps are identified, the operating company shall offer appropriate assistance to facilitate effective stakeholder engagement.	✅	<p>Evidence demonstrates capacity building being undertaken on a needs basis for directly affected stakeholders, and on an ongoing basis for broader stakeholders within the area of influence. The Mine shared an example of where they collaborated with stakeholders to facilitate engagement. Stakeholders who formed part of the resettlement working group were given training to better facilitate their participation in the resettlement process.</p> <p>Awareness creation through community radio stations – running advertisements and interviews particularly on how to use the grievance mechanism. The mine has shared the grievance mechanism with the contractors and provided training on how to use it.</p> <p>Completed a snap survey with community around the accessibility of the grievance, which will be used to make improvements and see where there needs to be capacity building.</p>
1.2.4.1.	Any information that relates to the mine's performance against the IRMA Standard shall be made available to relevant stakeholders upon request, unless the operating company deems the request to be unreasonable or the information requested is legitimate confidential business information. If part of a document is confidential only that confidential part shall be redacted, allowing for the release of non-confidential information.	—	This is Sishen's first IRMA assessment. It is too early in the process to assess the site against this requirement.
1.2.4.2.	If original requests for information are deemed unreasonable, efforts shall be made by the operating company to provide stakeholders with overviews or summaries of the information requested.	✅	<p>The evidence provided shows an example of a response to a request for information with an overview of the topic. Sites get requests for information frequently.</p> <p>Sites confirmed they share the full document or a summary and will print these if needed.</p>

Requirement #	Requirement Text	Rating	Basis for rating
1.2.4.3.	Communications shall be carried out and information shall be provided to stakeholders in a timely manner, and shall be in formats and languages that are culturally appropriate and accessible to affected communities and stakeholders		<p>Evidence indicates timely and regular engagement with stakeholders, and following protests the site will provide feedback within a week. Commitments have been made to facilitate a monthly engagement cycle going forward. Evidence provided demonstrates that vulnerability and barriers to engagement are considered in engagement planning and interactions.</p> <p>During external stakeholder interviews, stakeholders noted that the Mine does not consistently respond in a timely manner, and there have been instances where requests for funding and support have been made, and the Mine has not responded, or has been very slow to respond.</p>
1.2.4.4.	If requests for information are not met in full, or in a timely manner, the operating company shall provide stakeholders with a written justification for why it has withheld information.	—	There was no evidence that indicated that the Mine has not provided information requested by stakeholders.
Chapter 1.3—Human Rights Due Diligence			
1.3.1.	Critical The operating company shall adopt a policy commitment that includes an acknowledgement of its responsibility to respect all internationally recognized human rights		Corporate level human rights policies reviewed reference a commitment to respect for internationally recognized human rights. Periodic local community consultation event, Stakeholder Day (2022), presentation highlighted review of identified potential mine-related contributors to human rights impacts.
1.3.1.2.	<p>The policy shall:</p> <ol style="list-style-type: none"> Be approved at the most senior level of the company; Be informed by relevant internal and/or external expertise; Stipulate the operating company's human rights expectations of personnel, business partners and other parties directly linked to its mining project; Be publicly available and communicated internally and externally to all personnel, business partners, other relevant parties and stakeholders; 		A human rights policy is approved at the senior level of the company and informed by relevant external expertise (including third party input). Evidence is also provided demonstrating implementation of a human rights policy with third parties, through adherence to the Voluntary Principles with respect of human rights in contract terms with business partners, as well as related training for contractors. Human rights policy expectations are communicated to employees through compulsory induction and anti-bullying, harassment, and victimization training. The Human rights policy is available on the operating company's website.

Requirement #	Requirement Text	Rating	Basis for rating
	e. Be reflected in the mining project's operational policies and procedures.		
1.3.2.1.	<p>Critical The operating company shall establish an ongoing process to identify and assess potential human rights impacts (hereafter referred to as human rights "risks") and actual human rights impacts from mining project activities and business relationships. Assessment of human rights risks and impacts shall be updated periodically, including, at minimum, when there are significant changes in the mining project, business relationships, or in the operating environment.</p>		<p>The human rights due diligence impact assessment conducted previously is updated by the Social and Human Rights Impact and Risk Analysis provided. Site induction training material reviewed covers core human rights. Site evidence indicates refresher training is provided periodically. Tender to update Sishen Human Rights Due Diligence Process Scope of Work (Nov 2021) provided. Work awarded and underway in 2022. Baseline Workplace Risk Assessment and Control (WRAC), the basis for the Social and Human Rights Impact and Risk Analysis, is reviewed annually.</p> <p>Interviews with managers, employees and contractors confirm operationalization of human rights policy through induction and compulsory anti-bullying, harassment, and victimization training. The Employee handbook, disciplinary procedure and grievance mechanism and register, further demonstrates implementation. A Summary of Risks and Impacts includes potential human rights infringements and controls. Adherence to Voluntary Principles is included in the Kumba Iron Ore supplier contract. Monitoring and Evaluation criteria are implemented through monthly Business Forum meetings, with review of related Key Performance Indicators (KPIs).</p>
1.3.2.2.	<p>Assessments, which may be scaled to the size of the company and severity of human rights risks and impacts, shall:</p> <ul style="list-style-type: none"> a. Follow a credible process/methodology; b. Be carried out by competent professionals; and c. Draw on internal and/or external human rights expertise, and consultations with potentially affected rights holders, including men, women, children (or their representatives) and other vulnerable groups, and other relevant stakeholders. 		<p>Corporate policy states that stakeholders must be engaged as part of the risk assessment, and evaluators and methodology must be credible. A due diligence report is provided, prepared by a credible competent third-party identifying affected stakeholders and the most vulnerable in the context of human rights. Documentation presents the process / methodology to evaluate the severity of impacts on human rights and proposes actions to integrate the results into existing plans and management system. A New Human Rights Due Diligence Process scope of work awarded indicates work to update process is underway in 2022, including stakeholder consultation and participation. Kumba Iron Ore supplier contract includes adherence to Voluntary Principles. Monitoring and evaluation criteria are implemented through monthly Business Forum meetings, with review of related Key Performance Indicators.</p>
1.3.2.3.	<p>As part of its assessment, the operating company shall document, at minimum:</p> <ul style="list-style-type: none"> a. The assessment methodology; 		<p>Assessment methodology is outlined for the Human Rights Due Diligence report and also in updated Social and Human Rights Impact and Risk Analysis. The Social and Human Rights Impact and Risk Analysis includes a list of human rights impacts, and a rating of risks and proposed mitigations. The Social Management Plan outlines internal and external human rights context. Social Way policy outlines</p>

Requirement #	Requirement Text	Rating	Basis for rating
	<ul style="list-style-type: none"> b. The current human rights context in the country and mining project area; c. Relevant human rights laws and norms; d. A comprehensive list of the human rights risks related to mining project activities and business relationships, and an evaluation of the potential severity of impacts for each identified human rights risk; e. The identification of rights holders, an analysis of the potential differential risks to and impacts on rights holder groups (e.g., women, men, children, the elderly, persons with disabilities, indigenous peoples, ethnic or religious minority groups, and other disadvantaged or vulnerable groups), and a disaggregation of results by rights holder group; f. Recommendations for preventing, mitigating and remediating identified risks and impacts, giving priority to the most salient human rights issues. 	-	relevant human rights legislation and international norms. While still a work in progress at the time of the audit, I Scope of a Work for a Human Rights Due Diligence Process provided includes stakeholder consultation and participation in the process. The Monitoring and Evaluation Criteria document provided indicates human rights related risks are discussed during monthly Business Forum meetings.
1.3.2.4.	At minimum, stakeholders and rights holders who participated in the assessment process shall have the opportunity to review draft key issues and findings that are relevant to them, and shall be consulted to provide feedback on those findings.	-	Evidence was provided of stakeholder feedback into human rights impacts (those participating in the 2018 due diligence were given opportunity to review results). While still a work in progress at the time of the audit, a Human Rights Due Diligence Process Scope of Work underway in 2022 includes stakeholder consultation and participation.
1.3.2.5.	The operating company shall demonstrate that steps have been taken to effectively integrate assessment findings at the mine site operational level.	✓	Due diligence report, Social Management Plan and updated Social and Human Rights Impact and Risk Analysis presents integration of assessment results into the mine's plans and management systems. Induction and anti-harassment training, grievance procedure and register provided also indicate integration and implementation of assessment findings. The Scope of Work for the Human Rights Due Diligence Process includes participation of stakeholders.
1.3.3.1.	Mining project stakeholders shall have access to and be informed about a rights-compatible grievance mechanism and other mechanisms through which they can raise concerns and seek recourse for grievances related to human rights.	✓	A grievance procedure is available to stakeholders. Advertising in local newspaper and presence of 13 grievance drop boxes demonstrates access to communities. Communication materials indicating the right to appeal if unsatisfied with the solution are provided. The grievance register provided indicates use of grievance

Requirement #	Requirement Text	Rating	Basis for rating
			mechanisms. Interviews confirm the use of multiple media platforms which provide access and availability to grievance procedure options.
1.3.3.2.	<p>Responding to human rights risks related to the mining project:</p> <ul style="list-style-type: none"> a. If the operating company determines that it is at risk of causing adverse human rights impacts through its mining-related activities, it shall prioritize preventing impacts from occurring, and if this is not possible, design strategies to mitigate the human rights risks. Mitigation plans shall be developed in consultation with potentially affected rights holder(s). b. If the operating company determines that it is at risk of contributing to adverse human rights impacts through its mining-related activities, it shall take action to prevent or mitigate its contribution, and use its leverage to influence other contributing parties to prevent or mitigate their contributions to the human rights risks. c. If the operating company determines that it is at risk of being linked to adverse human rights impacts through its business relationships, it shall use its leverage to influence responsible parties to prevent or mitigate their risks to human rights from their activities. 	✔	<p>Human rights Due Diligence report, Social Management Plan and updated Social and Human Rights Impact and Risk Analysis demonstrates how the site plans to and is responding to identified human rights risks. Induction and anti-harassment training indicates ongoing efforts to respect and protect human rights. Implemented grievance procedure and register provided demonstrate a functioning grievance review and resolution process. Scope of Work for Human Rights Due Diligence Process, underway in 2022, includes stakeholder participation. Monthly Business Forum meetings include consideration of Voluntary Principles key performance indicators, indicating the operating company is using its influence to ensure compliance in avoiding human rights risks by its business partners.</p>
1.3.3.3.	<p>Critical Responding to actual human rights impacts related to the mining project:</p> <ul style="list-style-type: none"> a. If the operating company determines that it has caused an actual human rights impact, the company shall: <ul style="list-style-type: none"> i. Cease or change the activity responsible for the impact; and ii. In a timely manner, develop mitigation strategies and remediation in collaboration with affected rights holders. If mutually acceptable remedies cannot be found through dialogue, the operating company shall attempt to reach 	●	<p>The Due Diligence Report, Social Management Plan and updated Social and Human Rights Impact and Risk Analysis indicate several actual and potential human rights impacts and measures to mitigate these impacts. Induction training, anti-harassment training, a grievance mechanism and register provided indicate specific efforts to address potential human rights infringements and prevent future infringement. A progress report on social-labor initiatives touches on potential human rights issues to which the mine may contribute (e.g., lack of housing). The updated Baseline and a Human Rights Due Diligence Scope of Work provided but not completed at the time of the audit indicate ongoing efforts to address human rights impacts, including stakeholder participation. However, community and worker interviews raised potential issues regarding the effectiveness of mitigation</p>

Requirement #	Requirement Text	Rating	Basis for rating
	<p>agreement through an independent, third-party mediator or another means mutually acceptable to affected rights holders;</p> <p>b. If the operating company determines that it has contributed to an actual human rights impact, the company shall cease or change any activities that are contributing to the impact, mitigate and remediate impacts to the extent of its contribution, use its leverage to influence other contributing parties to cease or change their activities, and mitigate and remediate the remaining impact;</p> <p>c. If the operating company determines that it is linked to an actual human rights impact through a business relationship the company shall use its leverage to prevent or mitigate the impact from continuing or recurring; and</p> <p>d. The operating company shall cooperate with other legitimate processes such as judicial or State-based investigations or proceedings related to human rights impacts that the operating company caused, contributed to, or was directly linked to through its business relationships.</p>		measures implemented to date (i.e. harassment and bullying; the freedom of association for contracted workers).
1.3.4.1.	The operating company shall monitor whether salient adverse human rights risks and impacts are being effectively addressed. Monitoring shall include qualitative and quantitative indicators, and draw on feedback from internal and external sources, including affected rights holders.	☑	The Due Diligence Report, Social Management Plan and updated Social and Human Rights Impact and Risk Analysis demonstrate ongoing monitoring of human rights risks and impacts. Stakeholder Day presentations indicate regular reporting to stakeholders on human rights impacts and initiatives, and an opportunity to provide feedback. Human Rights Due Diligence Process Scope of Work indicates efforts to update process and monitoring, including stakeholder participation.
1.3.4.2.	External monitoring of an operating company's human rights due diligence shall occur if the company's due diligence efforts repeatedly fail to prevent, mitigate or remediate actual human rights impacts; or if its due diligence activities failed to prevent the company from unknowingly or unintentionally causing, contributing to or being linked to any serious human rights abuse. Additionally:	—	Documentation provided and interviews with managers, employees, community groups and local government representatives do not indicate a repeated failure of efforts to identify, mitigate or monitor human rights impacts.

Requirement #	Requirement Text	Rating	Basis for rating
	<p>a. The company shall fund the external monitoring; and</p> <p>b. The form of such monitoring, and selection of external monitors, shall be determined in collaboration with affected rights holders.</p>		
1.3.5.1.	The operating company or its corporate owner shall periodically report publicly on the effectiveness of its human rights due diligence activities. At minimum, reporting shall include the methods used to determine the salient human rights issues, a list of salient risks and impacts that were identified, and actions taken by the operating company to prevent, mitigate and/or remediate the human rights risks and impacts.	☑	Stakeholder Day presentations provided indicate periodic public reporting on human rights impacts and mitigation initiatives, as do annual sustainability reporting. Presentations list potential human rights impacts. Grievance mechanism and register provided. Grievance process correspondence is also provided. Presentation to internal Social Performance Management Committee notes external feedback from stakeholders.
1.3.5.2.	If relevant, the operating company shall publish a report on external monitoring findings and recommendations to improve the operating company's human rights due diligence, and the operating company shall report to relevant stakeholders and rights holders on its plans to improve its due diligence activities as a result of external monitoring recommendations.	☑	Documentation indicates that the operating company reports on human rights impacts and includes stakeholders in planning sessions. Grievance procedure and register provided. Sustainability Report includes a summary of grievances and resolutions. The Human Rights Due Diligence Process Scope of Work includes stakeholder participation. Minutes and interviews with participants at Stakeholder Day presentations confirm that the company reports on external monitoring findings.
1.3.5.3.	Public reporting referred to in 1.3.5.1 and 1.3.5.2 may exclude information that is politically sensitive, confidential business information, or that may compromise safety or place any individual at risk of further victimization.	☑	Operating company group policy and Sustainability Report provided suggest that as a global public company that politically sensitive or business confidential information would be excluded from public reporting, noting that as a guiding principle, "Our policies guide us to do the right thing."
Chapter 1.4—Complaints and Grievance Mechanism and Access to Remedy			
1.4.1.1.	Critical The operating company shall ensure that stakeholders, including affected community members and rights holders (hereafter referred to	⦿	The site is guided by corporate level policies that require Anglo American mines to develop and implement an external grievance mechanism. The site has in place a




Requirement #	Requirement Text	Rating	Basis for rating
	collectively as “stakeholders”) have access to an operational-level mechanism that allows them to raise and seek resolution or remedy for the range of complaints and grievances that may occur in relation to the company and its mining-related activities.		<p>Social Incidents and Grievance Procedure, implemented in 2019 and updated in 2020.</p> <p>Evidence provided shows that information around how to access the grievance mechanism is broadly shared.</p> <p>Stakeholders, however, reported that the Engage App is not accessible to all stakeholders as many people do not have smartphones, access to Wi-Fi or data.</p>
1.4.2.1.	<p>The operating company shall consult with stakeholders on the design of culturally appropriate complaints and grievance procedures that address, at minimum:</p> <ul style="list-style-type: none"> a. The effectiveness criteria outlined in Principle 31 of the United Nations Guiding Principles on Business and Human Rights, which include the need for the mechanism to be: (a) Legitimate, (b) Accessible, (c) Predictable, (d) Equitable (e) Transparent, (f) Rights-compatible, (g) A source of continuous learning, and (h) Based on engagement and dialogue; b. How complaints and grievances will be filed, acknowledged, investigated, and resolved, including general timeframes for each phase; c. How confidentiality of a complainant’s identity will be respected, if requested; d. The ability to file anonymous complaints, if deemed necessary by stakeholders; e. The provision of assistance for those who may face barriers to using the operational-level grievance mechanism, including women, children, and marginalized or vulnerable groups; f. Options for recourse if an initial process does not result in satisfactory resolution or if the mechanism is inadequate or inappropriate for handling serious human rights grievances; and g. How complaints and grievances and their resolutions will be tracked and recorded. 	✔	<p>The site has in place a Social Incidents and Grievance standard operating procedure, which is:</p> <ul style="list-style-type: none"> a. Guided by Anglo American’s AASW 3.0 Toolkit 3B Social Incident and Grievance Management, which requires the site to ensure the grievance process follows United Nations Guiding Principles b. Sets out clear instruction and time frames for filing and grievance resolution c. Respects confidentiality d. Facilitates the anonymous reporting of grievances f. Provides options for appeal or recourse

Requirement #	Requirement Text	Rating	Basis for rating
1.4.2.2.	The operating company shall ensure that all complaints and grievance procedures are documented and made publicly available.	☑	The evidence reviewed indicates that the grievance mechanism, and different ways to access it, are shared publicly including via the Anglo American website, shared at annual stakeholder days, included in monthly newsletters, posted on community notice boards.
1.4.3.1.	No remedy provided by an operational-level grievance mechanism shall require aggrieved parties to waive their right to seek recourse from the company for the same complaint through other available mechanisms, including administrative, non-judicial or judicial remedies.	⊖	The Grievance Mechanism states that "where the complainant remains aggrieved after the internal appeals process, the independent appeals process may be implemented." Evidence presented shows that companies are informed of their right to appeal through judicial processes if they are not satisfied with the site's attempt to resolve a grievance.
1.4.4.1.	Complaints and grievances and their outcomes and remedies shall be documented.	☑	The site is guided by corporate level policies that require Anglo American mines document grievances and their outcomes. Evidence reviewed demonstrates that the site has a record of grievances received and those that have been resolved. It is not clear whether grievances are entered into a grievance log. It was reported in interviews that incidents are captured on a grievance form and input into IsoMetrix. Each incident is assigned a number and tracked then from start to finish.
1.4.4.2.	The operating company shall monitor and evaluate the performance of the operational-level complaints and grievance mechanism over time to determine: <ul style="list-style-type: none"> a. If changes need to be made to improve its effectiveness as per 1.4.2.1.a; b. If changes in company activities can be implemented to prevent or mitigate similar grievances in the future; and c. If outcomes and remedies provided through the mechanism accord with internationally recognized human rights. 	☑	Evidence presented shows the site has undertaken an effectiveness review where the grievance/complaints are monitored through key performance indicators to monitor the grievance resolution, and key engagements. During interviews it was reported that site reviewed and updated the Grievance Mechanism based on stakeholder feedback through community perception surveys, Ulula surveys and updated internal requirements, which note the Grievance Mechanism must align with United Nations Guiding Principles. The new grievance mechanism requires that an annual context review should be carried out and stipulates annual monitoring.
1.4.4.3.	Stakeholders shall be provided with clearly communicated opportunities to submit feedback on	⊖	During interviews it was reported that the site reviewed and updated the grievance mechanism based on stakeholder feedback through community perception surveys, the grievance snap survey, Ulula surveys and at the annual stakeholder day.

Requirement #	Requirement Text	Rating	Basis for rating
	the performance of the complaints and grievance mechanism.		Stakeholders, however, noted that they didn't know how their feedback is used by the mine, and were broadly unaware that they could submit feedback on the grievance mechanism.
1.4.5.1.	The operating company shall take reasonable steps to inform all stakeholders of the existence of the operational-level complaints and grievance mechanism, its scope, and its procedures.	☑	Evidence presented demonstrates the Mine has taken steps to broadly inform stakeholders about the grievance mechanism through a number of different forums, such as posters, adverts and radio broadcasts. The results of the grievance snap survey indicate that almost two thirds of stakeholders surveyed were aware of the Grievance Mechanism. During community interviews it was reported that most people were aware of how to log a grievance.
1.4.5.2.	The operating company shall neither state nor imply that participation in an operational level grievance mechanism precludes the stakeholder from seeking redress through administrative, judicial or other non-judicial remedies.	☑	The Grievance Mechanism state" that "where the complainant remains aggrieved after the internal appeals process, the independent appeals process may be implemented." Evidence presented shows that stakeholders are informed of their right to appeal or seek recourse through other means through Grievance Mechanism socialization material.
1.4.5.3.	The operating company shall inform relevant personnel who interact with stakeholders of the proper procedures for handling stakeholder complaints and grievances, and ensure that personnel directly involved in the operational-level mechanism receive instruction on the respectful handling of all complaints and grievances, including those that may appear frivolous.	☑	It was reported that training on the grievance mechanism and the management of grievances has been provided to the cross-functional teams at Sishen. The Social incidents and grievances procedure provides a detailed procedure for handling grievances. Also, training for "learning from incidents." This site works on an integrated register so different teams will bring grievances to the Social Performance and work with the team to log the grievance and track and resolve.
1.4.6.1.	Periodically, the operating company shall report to stakeholders on grievances received and responses provided. This shall be done in a manner that protects the confidentiality and safety of those filing grievances.	☑	Evidence provided demonstrates that the site provides feedback on grievances internally. During interviews it was reported that feedback is first provided to stakeholders involved in the grievance. But that feedback on grievances in general is shared during the annual Stakeholder Day, including the nature of grievances, how many were open and closed, and groupings of stakeholders that had raised grievances.

Requirement #	Requirement Text	Rating	Basis for rating
Chapter 1.5—Revenue and Payments Transparency			
1.5.1.1.	The operating company shall comply with 1.5.1.2 and 1.5.1.3, and/or demonstrate how it complies with equivalent reporting and disclosure requirements of the European Union Accounting Directive (2013/34/EU) and the European Union Transparency Directive (2013/50/EU), or an equivalent mandatory transparency regime.	⊕	<p>Kumba Head Office controls the reporting for both Sishen and Kolomela and reports on the two mines as one entity. Since 1 January 2015, Anglo American has been subject to the project-by-project reporting requirements of the UK Reports on Payments to Government Regulations (SI 2014/3209) and Chapter 10 of the EU Accounting Directive (2013/34/EU). These rules require that the Group prepares and submits to Companies House, the UK registrar of companies, a full analysis of tax and certain other payments made to governments in respect of extractive projects on a project-by-project basis. However, this information is still not available. There are limitations in the scope of the Payments to Governments Regulations (for example, it focuses solely on the Group's extractive activities, excludes consumption and certain other taxes, and it is limited in application to jointly owned entities, etc.). In order to provide a better explanation of the Group's economic contribution, Anglo American has voluntarily extended these principles in the Tax and Economic Contribution report.</p> <p>In the 2019 report it was reported that other voluntary initiatives have been adopted by Anglo American including: the publication of country-by-country data; the implementation of GRI (Global Reporting Initiative) 207: Tax 2019 reporting requirements; compliance with the voluntary Tax Transparency Code in Australia; endorsing the Responsible Tax Principles established by The B Team; and supporting the Extractive Industries Transparency Initiative, both directly and as part of the International Council on Mining and Metals. An independent assurance statement by Deloitte LLP to Anglo American plc ("Anglo American") on the Payments to Governments submission and Other taxes borne is included within the Tax and Economic Contribution Reports 2017-2019. There was no site-specific information within the report or provided elsewhere.</p>
1.5.1.2.	On a yearly basis, the operating company shall publish a report that discloses all material payments made by itself and its corporate owner to the government of the country in which the mining project is located. The report shall be made public within 12 months after the end of each financial year.	—	It is not relevant because the corporate company is not subject to EU Directives.

Requirement #	Requirement Text	Rating	Basis for rating
1.5.1.3.	<p>The types of payment disclosed shall include as a minimum, as applicable:</p> <ul style="list-style-type: none"> a. The host government's production entitlement; b. National state-owned enterprise production entitlement; c. Profits taxes; d. Royalties; e. Dividends; f. Bonuses, such as signature, discovery and production bonuses; g. License fees, rental fees, entry fees and other considerations for licenses and/or concessions; h. Payments for infrastructure improvements; and i. Any other significant payments and material benefits to government, including in kind payments. 	—	It is not relevant because the corporate company is subject to EU Directives.
1.5.1.4.	At minimum, this information shall be broken down by recipient government body (where applicable), by project (where applicable), and by payment type.	⊗	Besides the corporate tax and economic contribution report, no specific data other than tax receipts were available during the assessment. The information is not published by the operation but is consolidated for South African operations.
1.5.2.1.	The operating company shall demonstrate its compliance with the reporting requirements specified in Chapter 10 of the European Union Directive 2013/34/EU or an equivalent mandatory transparency regime, and/or shall comply with the requirements listed under 1.5.2.2 below.	—	Compliance to the European Union Directive 2013/34/EU is not a requirement for South African companies.
1.5.2.2.	The operating company shall ensure that the following information at the mining project level is reported on an annual basis and is readily accessible to the public:	⊗	The Kumba Iron Ore Annual report is a combined report for both Kolomela and Sishen, and is part of the overall Anglo American annual report. Project level information was not available during the audit., therefore

Requirement #	Requirement Text	Rating	Basis for rating
	<ul style="list-style-type: none"> a. Mine production, disaggregated by product type and volume; b. Revenues from sales, disaggregated by product type; c. Material payments and other material benefits to government as listed in paragraph 1.5.1.3, disaggregated according to the receiving government entity (e.g. national, regional, local entity; name of government department); d. Social expenditures, including the names and functions of beneficiaries; e. Taxes, tariffs or other relevant payments related to transportation of minerals; f. Payments to politicians' campaigns, political parties or related organizations; and g. Fines or other similar penalties that have been issued in relation to the project. 		
1.5.2.3.	The operating company shall publish annual accounts, following international accounting standards.		Kumba Iron Ore publishes annual accounts as part of the Anglo America Annual report. The Anglo American annual report complies with International accounting standards, however it should be noted that Kumba Iron Ore is reported as one entity and project level information is not available.
1.5.3.1.	If the mining project is located in a country without a mandated transparency regime, the operating company shall demonstrate support for the EITI by publishing a clear public statement endorsing the EITI Principles on its external website.		Information provided by the site included a public statement endorsing the Extracting Industries Transparency Initiative (EITI) principles.
1.5.3.2.	<p>If the mining project is located in a country without a mandated transparency regime and the EITI is active in that country, the operating company shall:</p> <ul style="list-style-type: none"> a. Commit to engage constructively with and support implementation of the EITI consistent with the multi-stakeholder process adopted in its country of operation; and 		<p>South Africa is not a member that have committed to the Extracting Industries Transparency Initiative (EITI). The mine has submitted evidence of a public statement endorsing the EITI but has not completed the implementation of all the EITI principles.</p> <p>Information provided by the site included a public statement endorsing the EITI principles and is available on the internet. However, there is limited evidence of involvement with country-level EITI activities.</p>

Requirement #	Requirement Text	Rating	Basis for rating
	b. Provide links on its external website to completed and up-to-date Company Forms for its operation, if the EITI implementing country has completed at least one validation.		
1.5.4.1.	<p>The material terms for mineral exploration, development and production agreed between the operating company and government entities shall be freely and publicly accessible, with the exception of confidential business information, in the national language(s) of the country in which the mining project is located.</p> <p>a. Where these terms are negotiated, rather than governed by law, the company shall make the relevant agreements, licenses or contracts freely and publicly accessible.</p> <p>b. Where these terms are governed by law, free, public access to the relevant statutory documentation is deemed sufficient to meet the IRMA requirement.</p>	⊕	There is only an acceptance of application for the mining rights (18 January 2011). No further documentation regarding the final mining rights grant was available. EIA (Environmental Impact Assessment) report, including environmental management program and mitigation measures and closure, is available. However, no evidence that this document and other agreements and contracts (concession agreements, licensing agreements, production sharing agreements, service agreements, mining rights and proof of consultations) are publicly accessible in the national language(s) of the country of operation. More information is available in the Anglo American Kumba website, but no reference in the self-assessment was observed.
1.5.4.2.	The beneficial ownership of the operating company shall be publicly accessible.	✓	The beneficial ownership of Kumba Iron Ore is reported in the Kumba Iron Ore section which is a part the Anglo American Annual report. Kumba Iron Ore does not report independently.
1.5.5.1.	Critical The operating company shall develop, document and implement policies and procedures that prohibit bribery and other forms of corruption by employees and contractors.	✓	Anti-bribery/anti-corruption policy was reported to be in place; this policy is verbally communicated to employees and contractors through onboarding training. The policy is posted publicly via the Anglo American website and can be found to be mentioned in 35 separate public documents. Further evidence was provided in the application of the process where the mine has the capability to capture and review comments or complaints raised by stakeholders relating to fraud, bribery, and corruption. These were seen to be progressed as part of the documented process with outcomes recorded from the investigation and actions. Anglo American has a contract with Anglo American Business Assurance Services, who are responsible for investigating allegations of fraud and corruption.

Requirement #	Requirement Text	Rating	Basis for rating
1.5.2.	<p>Procedures shall include:</p> <ul style="list-style-type: none"> a. A requirement to internally report and record any undue pecuniary or other advantage given to, or received from, public officials or the employees of business partners, directly or through third parties; and b. Disciplinary actions to be taken if cases of bribery or corruption are discovered. 	✔	<p>Evidence that a procedure to manage potential fraud and corruption cases was provided and reviewed.</p> <p>The procedure explaining the Kumba Iron Ore's position with respect to any and all types of fraud and corruption was reviewed. The procedure, strictly forbidding any type of government payments or other equivalent activities that may give the impression of benefitting government employees. Site interviews confirmed that this expectation is being met.</p> <p>Disciplinary action in the event of failure to follow this expectation is not defined in the documents provided.</p>
1.5.3.	<p>Relevant employees and contractors shall be trained in the application of the operating company's policy and procedures.</p>	⊕	<p>Evidence was provided showing that the organization has implemented anti-corruption/anti-bribery training for employees. However, there is insufficient evidence to demonstrate that all relevant personnel have received the training. Evidence of training records for contractors only shows Safety, Health, Environmental and Quality policies but not anti-corruption/anti-bribery policy.</p>

Principle 2: Planning for Positive Legacies

RATING LEGEND

Description of performance



	Fully meets
	Substantially meets
	Partially meets
	Does not meet
	Not relevant

Note on Chapter 2.1:

In October 2020, the IRMA Board approved changes in the way Chapter 2.1 was to be audited for existing mines.⁵ The table below includes now shows where expectations are different for new versus existing mines. Existing mines are only required to meet a core set of requirements related to assessment of environmental and social risks (called CORE requirements), although existing mines have the option to be audited against the new mine requirements. Sishen has opted to be audited against the CORE requirements only, and this is reflected in the Basis for rating column. Existing mines are still required to have an environmental and social management system.

⁵ For more information, see the IRMA Guidance Note on Chapter 2.1: <https://responsiblemining.net/wp-content/uploads/2021/07/Chapter-2.1-ESIA-Guidance-Final-2020.pdf>

Requirement #	Requirement Text	Rating	Basis for rating
Chapter 2.1—Environmental and Social Impact Assessment and Management			
2.1.1.1	An Environmental and Social Impact Assessment (ESIA), appropriate to the nature and scale of the proposed mining project and commensurate with the level of its environmental and social risks and impacts, shall be completed prior to the commencement of any site-disturbing operations associated with the project.	☑	<p>The mine was originally opened in 1956, at this time there were no requirements in place in South Africa for an Environmental and Social Impact Assessment to be developed.</p> <p>Third-party specialists were appointed to conduct a full Social and Environmental Impact Assessment before the Sishen mine complex expanded in 2011. The Environmental and Social Impact Assessment complies with Section 22 and Regulations 50 and 51 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).</p>
2.1.1.2.	To enable a reasonable estimation of potential impacts related to the mining project, the ESIA process shall commence only after the project design has been sufficiently developed. Should the proposal be significantly revised a new assessment process shall be undertaken.	—	<p>The Environmental and Social Impact Assessment covers scoping and impact assessment phases. The detailed project description is given in section 4: pg. 67. Detailed reports of all the possible impacts that were identified are attached to the Social and Environmental Impact Assessment.</p> <p>No significant changes from the Social and Environmental Impact Assessment process that would require a re-start were noted.</p>
2.1.1.3.	The ESIA shall be carried out in accordance with publicly available, documented procedures.	☑	<p>The legislated process as set out in the Environmental Impact Assessment regulations, 2014 under the National Environmental Management Act (NEMA) 1998 was followed. This process is also monitored by the authorities and no signs of irregularities were found.</p> <p>Public participation was conducted according to the legislated process and the documents were made available.</p>
2.1.2.1.	Prior to the implementation of the ESIA process the operating company shall ensure that there has been wide, public announcement of the project proposal and the associated ESIA process, and that reasonable and culturally appropriate efforts have been made to inform potentially affected and interested stakeholders in potentially affected communities about the proposed project.	☑	<p>Section 5.4.2: Public Review of scoping report: The EIA (Environmental Impact Assessment) Report was available for review from 15th July until 16th August 2011 via the following methods: Digital Copy: www.agesdocs.co.za.</p> <p>Hardcopy: Sishen Auditorium and the Kathu Library. An EIA (Environmental Impact Assessment) Phase public meeting was held at the Kathu Primary School (Kathu Laerskool) on 14th July 2011 to present the Environmental Impact Assessment and the specialist findings on the project. Key stakeholders were identified and directly informed of the proposed development by means of registered post, faxes, email,</p>

Requirement #	Requirement Text	Rating	Basis for rating
			<p>site notices and newspaper advertisements. In addition to the above, the following notification and consultation methods were used during the Scoping Study:</p> <p>a. Newspaper Advertisements. Advertisements notifying the public of the Environmental Impact Assessment process were placed in the Volksblad on 9th February 2011 and in the Kalahari Bulletin on 10th February 2011.</p> <p>b. Site Notices. On 1st February 2011 six notice boards (A3 size) in English and Afrikaans were erected at visible locations in Kathu and Dingelton and eight notice boards (A1 size) in English and Afrikaans were erected at visible locations on each of the farms (Parsons 564, Fritz 540, Sishen 543 and Gamagara 541).</p>
2.1.2.2.	<p>Prior to the implementation of the ESIA process the operating company shall prepare a report and publish it on the operating company's external website, in the official national language(s) of the country in which the mining project is proposed to take place. The report shall provide:</p> <p>c. A general description of the proposed project, including details on the proposed location, and nature and duration of the project and related activities;</p> <p>d. The preliminary identification of potential significant environmental and social impacts, and proposed actions to mitigate any negative impacts;</p> <p>e. A description of the main steps of the ESIA process that will be carried out, the estimated timeline and the range of opportunities for stakeholder participation in the process; and</p> <p>f. Contact details for the person or team responsible for management of the ESIA.</p>		<p>The first Environmental and Social Impact Assessment was conducted in 2021. The Assessment was published on the third party specialist website but not on the company website.</p> <p>The report was reviewed and found compliant with all the IRMA requirements as set out in 2.1.2.2.</p>
2.1.3.1.	<p>Critical (New Mines) The operating company shall carry out a scoping process to identify all potentially significant social and environmental impacts of the mining project to be assessed in the ESIA.</p> <p>Critical (Existing Mines) The operating company shall demonstrate that it has undertaken a comprehensive</p>		<p>The environmental impact assessment process was not a legal requirement when the Sishen mine started in 1956. The documents reviewed were for the 2011, 2017 & 2021 expansion projects. In each case, the environmental impact assessment includes a scoping for potential impacts. Both environmental and social impacts were considered. An impact analysis was conducted, and mitigation measures outlined.</p>

Requirement #	Requirement Text	Rating	Basis for rating
	evaluation of potential environmental and social impacts associated with the mining operation.		
2.1.3.2.	During scoping, the operating company shall identify stakeholders and rights holders (hereafter, collectively referred to as "stakeholders") who may be interested in and/or affected by the proposed project.	☑	All Stakeholders were identified and notified prior to the commencement of the ESIA (Environmental and Social Impact Assessment) scoping project. Notifications were in multiple languages and multiple platforms. Also refer to 2.1.2.1.
2.1.3.3.	Scoping shall include the consideration of: <ul style="list-style-type: none"> a. Social impacts (including potential impacts on communities and workers) and environmental impacts (including potential impacts on wildlife, air, water, vegetation and soils) during all stages of the project lifecycle, from pre-construction through post-closure; b. Direct, indirect and cumulative impacts; and c. Potential impacts of extreme events. 	☑	The Environmental Impact Assessment included a scoping phase for the scoping of the impacts. It is well-described for all types of potential project impacts including extreme events. A cumulative impact is also included as part of the scoping study.
2.1.3.4	Scoping shall result in the identification of: <ul style="list-style-type: none"> a. Potentially significant environmental and social impacts of the proposed project; b. Alternative project designs to avoid significant adverse impacts; c. Other actions to mitigate identified adverse impacts; and d. Additional information and data needed to understand and assess the potential impacts. 	☑	The scoping process in each of the reviewed documents complies with all four specific requirements. The Environmental Management Program included a scoping phase where a full assessment of impacts on social and environment was conducted. A cumulative impact assessment was also done as part of the impacts scoping assessment.
2.1.4.1.	Baseline data describing the prevailing environmental, social, economic and political environment shall be collected at an appropriate level of detail to allow the assessment of the potential impacts of the proposed mining project.	☑	Baseline studies related to the social, environmental, economic, and political environment were conducted and recorded for each of the expansion projects. All the baseline data conditions related to the social, environmental, economic, and political environment were collected during the Environmental and Social Impact Assessment scoping prior to the mine development.

Requirement #	Requirement Text	Rating	Basis for rating
2.1.4.2.	Additional studies shall be carried out as necessary to fulfill the information needs of the ESIA.	✓	In each of the reports reviewed, several addendums show outcomes of the additional specialist studies. These studies correlate with the identified studies in the scoping. The EIA (Environmental Impact Assessment) report defines all the additional studies that need to be conducted to fulfil the EIA requirements.
2.1.5.1	<p>The operating company shall:</p> <ul style="list-style-type: none"> a. Predict in greater detail the characteristics of the potentially significant environmental and social impacts identified during scoping; b. Determine the significance of the predicted impacts; c. Evaluate options to mitigate predicted significant adverse impacts in line with the mitigation hierarchy, prioritizing the avoidance of impacts through consideration of alternative project designs; and d. Determine the relative importance of residual impacts (i.e., impacts that cannot be mitigated) and whether significant residual adverse impacts can be addressed to the satisfaction of affected or relevant stakeholders. 	✓	The scoping reports identify and address all four of the requirements as set out in the IRMA standard.
2.1.6.1.	<p>The operating company shall prepare an ESIA report that includes, at minimum:</p> <ul style="list-style-type: none"> a. A description of the proposed mining project; b. Detailed description of the direct, indirect and cumulative impacts likely to result from the project, and identification of significant adverse impacts; c. Description of the alternatives considered to avoid and mitigate significant adverse impacts in line with the mitigation hierarchy, and the recommended measures to avoid or mitigate those impacts; d. A review of the public consultation process, the views and concerns expressed by stakeholders and how the concerns were taken into account; and e. Names and affiliations of ESIA authors and others involved in technical studies. 	✓	All five of the requirements are covered by the reviewed reports. The report identifies all significant social and environmental impacts during scoping and the significance of the identified impacts on the respective environments. The options for impact mitigation were also provided. Cumulative impact studies were conducted to identify the cumulative impacts. The report also includes the names, qualifications and affiliations of the authors of the report. Each specialist study includes the complete information of the author and other persons involved.


Requirement #	Requirement Text	Rating	Basis for rating
2.1.7.1.	The operating company shall develop and maintain a system to manage environmental and social risks and impacts throughout the life of the mine.	✓	Each of the reports includes a well-defined Environmental Management and Monitoring Plan. The plans provide for a way to manage the environmental and social risks throughout the mine cycle.
2.1.7.2	An environmental and social management plan (or its equivalent) shall be developed that, at minimum: <ul style="list-style-type: none"> a. Outlines the specific mitigation actions that will be carried out to address significant environmental and social impacts identified during and subsequent to the ESIA process; b. Assigns personnel responsible for implementation of various elements of the plan; and c. Includes estimates for the resources needed to implement the plan. 	✓	The Environmental Management Plan (EMP) , dated 2021, is well-structured and includes goals and training for all staff to follow the action items set out in the environmental management plan. The environmental management plan includes both the environmental and social project impacts. This document supports an environmental and social performance system throughout the Life of Mine
2.1.7.3.	The environmental and social management plan shall be implemented and revised or updated as necessary based on monitoring results or other information.	✗	No evidence has been submitted to show updates and changes as conditions have changed and new information has become available.
2.1.8.1.	As part of the ESMS, the operating company shall establish a program to monitor: <ul style="list-style-type: none"> a. The significant environmental and social impacts identified during or after the ESIA process; and b. The effectiveness of mitigation measures implemented to address environmental and social impacts. 	⊕	The site reports that an environmental and social management system has been implemented and monitoring programs are in place. However, no evidence was submitted to show monitoring programs.
2.1.8.2.	The monitoring program shall be designed and carried out by competent professionals.	✗	No documentation was submitted to verify the credentials of professionals conducting monitoring and measuring.
2.1.8.3.	If requested by relevant stakeholders, the operating company shall facilitate the independent monitoring of key impact indicators where this would not interfere with the safe operation of the project.	✗	No evidence was submitted by the mine that enabled the auditor to assess this requirement.



Requirement #	Requirement Text	Rating	Basis for rating
2.1.9.1.	<p>(New Mines) As part of the ESIA process, the operating company shall provide for timely and effective stakeholder and rights holder (hereafter collectively referred to as stakeholder) consultation, review and comment on:</p> <ul style="list-style-type: none"> a. The issues and impacts to be considered in the proposed scope of the ESIA (see 2.1.3); b. Methodologies for the collection of environmental and social baseline data (see 2.1.4); c. The findings of environmental and social studies relevant to the conclusions and recommendations of the ESIA (see 2.1.5.1.a and b); d. Options and proposals to mitigate the potential impacts of the project (see 2.1.5.1.c); e. Provisional conclusions and recommendations of the ESIA, prior to finalization (see 2.1.6.1); and f. The final conclusions and recommendations of the ESIA (see 2.1.6.1). <p>(Existing Mines) The operating company shall consult with relevant stakeholders in the identification and evaluation of potential environmental and social impacts associated with the mine</p>	●	All six areas as outlined in the sub-requirements were verified in each of the three reports reviewed. No evidence of timelines was made available to assess the timeliness aspect of the requirement.
2.1.9.2.	<p>(New Mines) The operating company shall encourage and facilitate stakeholder participation, where possible, in the collection of data for the ESIA, and in the development of options to mitigate the potential impacts of the project during and subsequent to the ESIA process.</p> <p>(Existing Mines) The operating company shall encourage and facilitate stakeholder participation, where possible, in the development of options to mitigate the potential impacts of the mine.</p>	☑	The stakeholder participation is an integral part of the EIA (environmental impact assessment) process, as set out in the regulations. Stakeholder participation in every environmental management plan is encouraged and face-to-face discussions are held. The Results of the discussions are incorporated into each environmental management plan; this is verified by the addendums to the EIA (environmental impact assessment) documentation.
2.1.9.3.	The operating company shall provide for timely and effective stakeholder consultation, review and	☑	The documents reviewed show compliance with the regulated timelines as set out in the Regulations: Environmental Impact Assessment, 2014 for stakeholder

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	comment on the scope and design of the environmental and social monitoring program.		engagement. The EIA (Environmental Impact Assessment) report defines the timelines as prescribed in the regulations.
2.1.9.4.	The operating company shall encourage and facilitate stakeholder participation, where possible, in the implementation of the environmental and social monitoring program.	●	The site has developed environmental and social monitoring plans. No evidence was submitted to show that stakeholders were encouraged to participated in this process.
2.1.9.5.	The operating company shall record all stakeholder comments received in relation to ESIA scoping; implementation; ESIA findings, conclusions and recommendations; and the environmental and social monitoring program. The company shall record how it responded to stakeholder comments.	●	In the documents reviewed, the details of the engagement process with stakeholders that was followed during the assessment are clearly detailed. The process followed for issues raised has been addressed and is included in the Issues and Response Report as an appendix, as contemplated in regulation 50(f) of the Mineral and Petroleum Resources Development Act (2002).
2.1.10.1.	(New Mines) The ESIA report and any supporting data and analyses shall be made publicly available. Detailed assessments of some issues and impacts may be reported as stand-alone documents, but the ESIA report shall review and present the results of the full analysis in an integrated manner. (Existing Mines) At minimum, a summary of the significant environmental and social impacts and risks associated with the mining operation shall be made public	☑	For the 2021 EIA (environmental impact assessment), the report was made publicly available in digital and hard copy for public comment. The EIA (environmental impact assessment) Report was available for review from 15th July until 16th August 2011 via the following methods: Digital Copy: www.agesdocs.co.za Hardcopy: Sishen Auditorium and the Kathu Library.
2.1.10.2.	The operating company shall make publicly available an anonymized version of the ESIA record of stakeholder comments and its own responses, including how each comment was taken into account.	●	The final report submitted to the authorities includes Pg 101: Comments received from Interested and Affected Parties during the public participation process are included in the Issues and Response Report (Appendix C). Currently in South Africa anonymized reporting on stakeholder comments are not regarded as the norm and therefore this requirement cannot be fulfilled.
2.1.10.3.	The environmental and social management plan shall be made available to stakeholders upon request.	☑	The site confirmed that the Environmental and Social Management Plan (ESMP) will be made available to stakeholders upon request. The Environmental and Social

Requirement #	Requirement Text	Rating	Basis for rating
			Management Plan was included in the Environmental Management Programme available for public comment.
2.1.10.4.	Summary reports of the findings of the environmental and social monitoring program shall be made publicly available at least annually, and all data and methodologies related to the monitoring program shall be publicly available.	⊗	The site confirms that current practice does not make provision for the findings of the environmental and social monitoring programs to be made available publicly.
2.1.10.5.	(New Mines) The existence of publicly available ESIA and ESMS information, and the means of accessing it, shall be publicized by appropriate means. (Existing Mines) The existence of publicly available ESMS information, and the means of accessing it, shall be publicized by appropriate means.	⊙	The Anglo American social management system, Social Way 3.0, is publicly available on the Anglo American website. Environmental, health, safety and sustainability programs and key performance data are published in the Integrated Report, Sustainability Report and Climate Change Report on the Anglo American Kumba Iron Ore website. Specific environmental, health and safety management system information is made available to the public upon evaluation of request.
Chapter 2.2—Free, Prior and Informed Consent (FPIC)			
	Chapter Not Relevant	—	Sishen report that at present, based on the existing definition of the Area of Influence ⁶ there are no indigenous peoples whose legal or customary rights or interests may be affected by the Mine . A Scope of Work (SoW) has been developed to appoint an external service provider , and subject-matter expert to undertake an Indigenous Peoples Study to further understand Indigenous Peoples living in the broader region. .

⁶ The Anglo American Social Way 3.0 requires all operations to define an area of influence. The area of influence is defined in the Social Way 3.0 as the area affected by a site's activities, including direct, indirect and induced impacts, impacts from cumulative affects and unplanned events, the site's primary labor sending area, etc. The Area of Influence is defined (or revised) every five years (Anglo American Social Way 3.0, Tool 3A, Box 3A.5.

Requirement #	Requirement Text	Rating	Basis for rating
			<p>A group of traditional leaders in the Northern Cape have identified themselves as the Korona First Nation and have so53ecognized recognised as Indigenous Peoples. Sishen Mine recognizes the Korona First Nation as Indigenous Peoples, and applies a methodology for engaging in accordance with the Anglo American Social Way. Stakeholder engagement is additionally undertaken to best align with the principle of inclusion and diversity, engaging in an open, meaningful, and respectful manner, including vulnerable, rights seeking and disadvantaged groups and this is addressed in Chapter 1.2.</p> <p>This Chapter has been determined to be 'Not Relevant' to the Sishen Mine. However, the Findings of the Indigenous Peoples Study will be reviewed and further interviews with traditional leaders will be conducted at the next surveillance audit.</p>
Chapter 2.3—Obtaining Community Support and Delivering Benefits			
2.3.1.1.	<p>The operating company shall publicly commit to:</p> <ul style="list-style-type: none"> a. Maintaining or improving the health, social and economic wellbeing of affected communities; and b. Developing a mining project only if it gains and maintains broad community support. 		<p>The site follows the Anglo American Social Way 3.0 Policy which sets out Anglo American's commitment to to avoid harm and create an environment in which communities impacted by Anglo American operations can prosper sustainably. The Anglo American Social Way 3.0 Policy and Toolkits are publicly available on Anglo's website.</p> <p>Programs and commitments to health/socio-economic wellbeing of affected communities included in the Social and Labor Plan - a publicly disclosed document.</p> <p>Neither the site nor Anglo American explicitly state that they will only develop a mining project if they obtain and maintain broad community support.</p>
2.3.2.1.	For new mines, the operating company shall demonstrate that it obtained broad community support from communities affected by the mining project, and that this support is being maintained.	—	Sishen is an existing mine.
2.3.2.2.	For new mines, broad community support shall be determined through local democratic processes or governance mechanisms, or by another process or	—	Sishen is an existing mine.

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	<p>method agreed to by the company and an affected community (e.g., a referendum). Evidence of broad community support shall be considered credible if the process or method used to demonstrate support:</p> <ul style="list-style-type: none"> a. Occurred after the operating company carried out consultations with relevant stakeholders regarding potential impacts and benefits of the proposed mining project; b. Was transparent; c. Was free from coercion or manipulation; and d. Included the opportunity for meaningful input by all potentially affected community members, including women, vulnerable groups and marginalized members, prior to any decision or resolution. 		
2.3.2.3.	For existing mines, the operating company shall demonstrate that the mine has earned and is maintaining broad community support.		<p>Evidence demonstrates that the Mine has obtained broad community support. The Mine conducts regular surveys to understand community perception and support for the operation. The Mine conducted a community perception survey in 2020 which shows generally positive sentiment towards the operation. Additional evidence includes letters of appreciation from the local municipality in which the mine is located.</p> <p>Stakeholders reported that while they are largely supportive of the Mine, there is some dissatisfaction around the delivery of benefits and procurement opportunities. Although protests and grievances are raised regularly, these are not always aimed only at Sishen, but also at surrounding mines and general state of dissatisfaction due to external factors. The mine is actively working in and with communities to maintain support for its operations.</p>
2.3.3.1.	The operating company, in collaboration with affected communities and other relevant stakeholders (including workers and local government), shall develop a participatory planning process to guide a company's contributions to community development initiatives and benefits in affected communities.		<p>Corporate guidance requires sites to engage with stakeholders as part of socio-economic development planning, and evidence presented shows that the site intends to engage stakeholders as part of the Social Labor Plan update (SLP3). Evidence presented demonstrates that the mine has engaged with stakeholders to develop a Socioeconomic Development Plan and Social and Labor Plan.</p> <p>It was reported that stakeholders were consulted the socioeconomic development in 2021 and establishing task teams to drive the socioeconomic development implementation. In designing and budgeting the plan, stakeholder suggestions have been considered.</p>

Requirement #	Requirement Text	Rating	Basis for rating
			Despite the above, some stakeholders that were interviewed noted that they do not feel they had an opportunity to participate in planning the socioeconomic development, or they did not understand how their input was considered.
2.3.3.2.	The planning process shall be designed to ensure local participation, social inclusion (including both women and men, vulnerable groups and traditionally marginalized community members, e.g., children, youth, the elderly, or their representatives), good governance and transparency.	☑	The local municipality is considered vulnerable and has been the target of socioeconomic development. During interviews, it was reported that for workshop planning, the site considered how to reach specific vulnerable groups such as South African Police Services, pressure groups, and youth groups, and how various channels such as emails and targeted calls were used. Communication was provided in Setwana where applicable.
2.3.3.3.	If requested by the community and not provided by the appropriate public authorities, the operating company shall provide funding for mutually agreed upon experts to aid in the participatory process.	☑	No such requests were made. Mine representatives noted that if such a request were made the site would facilitate this.
2.3.3.4.	Efforts shall be made to develop: <ul style="list-style-type: none"> a. Local procurement opportunities; b. Initiatives that benefit a broad spectrum of the community (e.g., women, men, children, youth, vulnerable and traditionally marginalized groups); and c. Mechanisms that can be self-sustaining after mine closure (including the building of community capacity to oversee and sustain any projects or initiatives agreed upon through negotiations). 	🌑	Evidence presented shows the mine has made efforts to improve local procurement and employment. socioeconomic development and the Social and Labor Plan projects consider stakeholder input to target a broad range of stakeholders, and that stakeholder engagement projects must be aligned with long-term mine objectives, including closure objectives.
2.3.3.5.	The planning process and any outcomes or decisions shall be documented and made publicly available.	☑	Evidence shows that the Social and Labor Plan is available to the public via Anglo's intranet, and links are shared with stakeholders. It is also printed and shared. Socioeconomic development feedback is also given through the annual stakeholder day.
2.3.3.6.	In collaboration with the community, the operating company shall periodically monitor the effectiveness of any mechanisms or agreements developed to	☑	Corporate guidance notes that monitoring and evaluation should be applied to assess results and effectiveness.

Requirement #	Requirement Text	Rating	Basis for rating
	deliver community benefits, based on agreed upon indicators, and evaluate if changes need to be made to those mechanisms or agreements.		Internal monitoring through monthly and quarterly reports to corporations. Third party stakeholder impact assessments documented the effectiveness of the project.
Chapter 2.4—Resettlement			
2.4.1.1.	If there is the potential that a new mine (including associated facilities) or the expansion of an existing mine or associated facilities may require land acquisition that could result in the involuntary resettlement (for the remainder of this chapter, referred to simply as resettlement) of people, the operating company shall undertake an assessment process to evaluate the potential direct and indirect risks and impacts related to the physical and/or economic displacement of people.	✔	The site is an existing mine, established in 1953. However, the Sishen West Expansion Project (SWEP) resulted in the physical displacement of households in 2017. The Mine prepared a Resettlement Action Plan to assess the impact of the expansion project on project-affected people.
2.4.1.2.	<p>The assessment shall:</p> <ul style="list-style-type: none"> a. Be undertaken during the early stages of mining project planning; b. Include identification of alternative mining project designs to avoid, and if that is not possible, minimize the displacement of people; c. Identify and analyze the social, cultural, human rights, conflict, environmental and economic risks and impacts to displaced persons and host communities for each project design alternative, paying particular attention to potential impacts on women, children, the poor and vulnerable groups; and d. Identify measures to prevent and mitigate risks and impacts, and estimate the costs of implementing the measures. 	✔	<p>The evidence provided shows that an assessment was:</p> <ul style="list-style-type: none"> a. Undertaken in early stages of the project planning through a Feasibility Study Report, 2013. b. The resettlement was deemed unavoidable and would have reduced the Life of Mine had it not proceeded. c. The host site is located adjacent to the town of Kathu. The mine worked with the local municipality and other stakeholders to consider the impacts on the host town. d. The Resettlement Action Plan includes a monitoring framework, and subsequent monitoring tools have been established.

Requirement #	Requirement Text	Rating	Basis for rating
2.4.1.3.	The assessment shall be undertaken by competent professionals with experience in resettlement related to large-scale development projects.	✓	The Resettlement Action Plan was prepared by resettlement specialists with extensive experience conducting resettlement in South Africa.
2.4.1.4.	The operating company shall document decision-making regarding alternative mining project designs and efforts to minimize resettlement.	✗	No evidence was made available of documented decision making for mine project design for the Sishen West Expansion Project design.
2.4.1.5.	The assessment shall be made public, or, at minimum, be made available to potentially affected people and their advisors.	✓	The Resettlement Action Plan was put out for comment in 2014. In addition, the site produced a comic book explaining the resettlement process to stakeholders.
2.4.2.1.	The operating company shall disclose relevant information and consult with potentially affected people and communities, including host communities, during: <ul style="list-style-type: none"> a. The assessment of displacement and resettlement risks and impacts, including the consideration of alternative mining project designs to avoid or minimize resettlement; a. The development of resettlement and livelihood options; and b. The development, implementation, monitoring and evaluation of a Resettlement Action Plan (RAP) and/or Livelihood Restoration Plan (LRP). 	✓	Evidence reviewed demonstrates that the mine established a resettlement working group to engage with potentially affected people and held regular meetings with other stakeholders to share information about the resettlement, and obtain feedback on designs, livelihood restoration options and monitoring and evaluation.
2.4.2.2.	The operating company shall facilitate access, if desired by potentially affected people and communities, including host communities, to independent legal or other expert advice from the earliest stages of project design and assessment, through monitoring and evaluation of the resettlement process.	✓	Sishen has facilitated access to legal support for the renters, who at the time of the audit, do not wish to leave the caravan park.

Requirement #	Requirement Text	Rating	Basis for rating
2.4.2.3.	People from affected communities, including host communities, shall have access to an effective mechanism to raise and seek recourse for concerns or grievances related to displacement and resettlement.	✓	A grievance mechanism was prepared as part of a Resettlement Feasibility Study. Evidence demonstrates that stakeholders are using the mechanism and that grievances are being tracked and responded to by the mine.
2.4.3.1.	When project-related displacement is deemed unavoidable, a census shall be carried out to collect appropriate socio-economic baseline data to identify the people who will be physically or economically displaced by the project and determine who will be eligible for compensation and assistance.	✓	Evidence shows that both renters and owners in Dingleton were surveyed in 2014. A census of Siyathemba residents was complete in 2017. Eligibility and compensation were determined by the resettlement consultants.
2.4.3.2.	In the absence of host government procedures, the operating company shall establish compensation eligibility criteria and a cut-off date for eligibility. Information regarding the cut-off date shall be well documented, and disseminated along with eligibility information throughout the mining project area.	✓	Evidence shows eligibility criteria were established through the Resettlement Action Plan process and a cut-off date was established and communicated to affected peoples through quarterly community meetings at the moratorium, and a newsletter in December 2013 followed with further information.
2.4.3.3.	<p>In the case of physical displacement, the operating company shall develop a Resettlement Action Plan. If the project involves economic displacement only, a Livelihood Restoration Plan shall be developed. In either case, these plans shall, at a minimum:</p> <ul style="list-style-type: none"> a. Describe how affected people will be involved in an ongoing process of consultation throughout the resettlement/livelihood restoration planning, implementation and monitoring phases; b. Describe the strategies to be undertaken to mitigate the negative impacts of displacement and improve or restore livelihoods and standards of living of displaced people, paying particular attention to the needs of women, the poor and vulnerable groups; c. Describe development-related opportunities and benefits for affected people and communities; d. Describe the methods used for valuing land and other assets; 	✓	A Resettlement Action Plan was prepared for the displacement of the Siyathemba community that meets sub-requirements a to f.

Requirement #	Requirement Text	Rating	Basis for rating
	<ul style="list-style-type: none"> e. Establish the compensation framework (i.e., entitlements and rates of compensation for all categories of affected people, including host communities) in a transparent, consistent, and equitable manner; f. Include a budget and implementation schedule; and g. Be publicly available. 		
2.4.4.1.	<p>In all cases, when people are physically displaced as a result of the development or expansion of a mine or its associated facilities:</p> <ul style="list-style-type: none"> a. The operating company shall provide relocation assistance that is suited to the needs of each group of displaced peoples and is sufficient for them to improve or at least restore their standard of living at an alternative site; b. New resettlement sites built for displaced people shall offer improved living conditions; and c. Displaced people's preferences with respect to relocating in pre-existing communities and groups shall be taken into consideration and existing social and cultural institutions of the displaced peoples and any host communities shall be respected. 	✔	<p>The Resettlement Action Plan provides evidence that the Mine offered like for like replacement of houses or a cash-buyout option to affected people. Later, renters were included and offered alternative accommodation.</p> <p>Evidence presented shows that physically displaced persons received relocation assistance tailored to the needs of each group of displaced persons. According to the data obtained, assistance was provided during all resettlement stages that top-up packages were provided based on the outcomes of monitoring.</p> <p>Additional scope for Livelihood Restoration Plan included an expanded high school, replaced informal structures, buildings for churches, and additional infrastructure.</p>
2.4.4.2.	<p>In cases where physically displaced people have formal legal rights to the land or assets they occupy or use, or do not have formal legal rights but have a claim to land that is recognized or recognizable under national law:</p> <ul style="list-style-type: none"> a. The operating company shall offer the choice of replacement property (land and assets) of at least equal value and characteristics, security of tenure, and advantages of location; and b. If cash compensation is appropriate and preferred by the affected people, compensation shall be sufficient to replace lost land and other assets at full replacement cost in local markets 	✔	<p>The Resettlement Action Plan provides evidence that the Mine offered like for like replacement of houses or a cash-buyout option to affected people. Later, renters were included and offered alternative accommodation.</p> <p>Evidence presented shows that physically displaced persons received relocation assistance tailored to the needs of each group of displaced persons. According to the data obtained, assistance was provided during all resettlement stages and top-up packages were provided based on the outcomes of monitoring.</p>





Requirement #	Requirement Text	Rating	Basis for rating
2.4.4.3.	<p>In cases where physically displaced people have no recognizable legal right or claim to the land or assets they occupy or use, the operating company shall:</p> <ul style="list-style-type: none"> a. Offer options for adequate housing with security of tenure; and b. Compensate for the loss of assets other than land at full replacement cost, provided that the people had been occupying the project area prior to the cut-off date for eligibility. 	✔	<p>Evidence shows that while informal renters were not considered in the initial evaluation, the Mine commissioned an additional study to include alternative accommodation for informal renters. They were temporarily relocated to a caravan park, while an apartment building was constructed to accommodate them. Twenty-three families remain in the caravan park and do not wish to be relocated to the apartment building as they have become accustomed to their temporary home in the caravan park.</p>
2.4.5.1.	<p>If project-related land acquisition or restrictions on land use result in economic displacement, regardless of whether or not the affected people are physically displaced, the operating company shall apply the following measures:</p> <ul style="list-style-type: none"> a. When commercial structures are affected, the business owners shall be compensated for the cost of re-establishing commercial activities elsewhere, for lost net income during the period of transition, and for the costs of the transfer and reinstallation of the plant, machinery, or other equipment, and the employees shall be compensated for lost income; b. When affected people have legal rights or claims to land that are recognized or recognizable under national law, replacement property of equal or greater value shall be provided, or, where appropriate, cash compensation at full replacement cost; and c. Economically displaced people who are without legally recognizable claims to land shall be compensated for lost assets other than land at full replacement cost. 	✔	<p>Evidence demonstrates that formal business owners were offered like for like replacement or cash compensation meeting requirements a and b. Informal businesses were offered cash compensation at market value meeting requirement c.</p>
2.4.5.2.	<p>All economically displaced people whose livelihoods or income levels are adversely affected shall be provided opportunities to improve, or at least restore, their means of income-earning capacity, production levels, and standards of living, and transitional support</p>	⊕	<p>Evidence shows that small-scale livestock owners were affected by the displacement. The Mine secured alternative grazing land through the local municipality. Stakeholders noted that the alternative land is not within walking distance from their homes like their previous grazing areas.</p>

Requirement #	Requirement Text	Rating	Basis for rating
	<p>shall be provided based on a reasonable estimate of the time required to restore their income-earning capacity, production levels, and standards of living. Additionally:</p> <ul style="list-style-type: none"> a. For people whose livelihoods are land-based, replacement land that has a combination of productive potential, locational advantages, and other factors at least equivalent to that being lost shall be offered as a matter of priority; b. For people whose livelihoods are natural resource-based and where project-related restrictions on access apply, continued access to affected resources or access to alternative resources with at least equivalent livelihood-earning potential and accessibility shall be provided; and c. If circumstances prevent the operating company from providing land or similar resources as described above, alternative income earning opportunities shall be provided to restore livelihoods 		
2.4.6.1.	<p>In order to be certified by IRMA, if a new project will require the displacement of indigenous peoples the operating company shall obtain the free, prior and informed consent (FPIC) of affected indigenous communities before proceeding with the resettlement and mine development (as per IRMA Chapter 2.2).</p>	—	No known indigenous peoples were impacted by the displacement.
2.4.6.2.	<p>If a new mine will require the displacement of non-indigenous peoples, the operating company shall make a good faith effort to negotiate agreements with all households that will be physically or economically displaced by the mining project before proceeding with the resettlement, even if the company has the legal means to acquire land or restrict land use without their consent.</p>	✔	All the evidence presented shows that the mine made efforts to negotiate with affected people, and the feasibility study stated no expropriation will take place.

Requirement #	Requirement Text	Rating	Basis for rating
2.4.6.3.	<p>Prior to negotiating with affected people, the operating company shall provide or facilitate access to resources necessary to participate in an informed manner. This shall include, at minimum:</p> <ul style="list-style-type: none"> a. Copies of RAP and/or LRP; b. Details on what to expect at various stages of the resettlement or livelihood restoration process (e.g., when an offer will be made to them, how long they will have to respond, how to access the grievance mechanism if they wish to appeal property or asset valuations, legal procedures to be followed if negotiations fail); and c. Independent legal experts or others to ensure that affected people understand the content of any proposed agreement and associated information. 	✔	<p>Evidence presented demonstrates ongoing stakeholder engagement through a process that facilitated:</p> <ul style="list-style-type: none"> a. Access to the Resettlement Action Plan b. Information on the process, cut-off dates, relocation expectations and other key information on the resettlement c. Access to independent assistance, where required.
2.4.6.4.	<p>In cases where affected people reject compensation offers that meet the requirements of this chapter and, as a result, expropriation or other legal procedures are initiated, the operating company shall explore opportunities to collaborate with the responsible government agency, and, if permitted by the agency, play an active role in resettlement planning, implementation, and monitoring to mitigate the risk of impoverishment of those affected people.</p>	—	<p>While some households had additional conditions for relation, the last of the households was located in 2021.</p>
2.4.6.5.	<p>Forced evictions shall not be carried except in accordance with law and international best practice, and the requirements of this chapter.</p>	✔	<p>The evidence presented shows that the mine made efforts to negotiate that the feasibility study stated no expropriation will take place.</p>
2.4.6.6.	<p>The operating company shall take possession of acquired land and related assets only after compensation has been made available, and, where applicable, resettlement sites and moving allowances have been provided to the displaced people.</p>	✔	<p>Evidence shows that agreements were signed in 2013, but the Mine only took possession of land once people had moved and compensation paid.</p>

Requirement #	Requirement Text	Rating	Basis for rating
2.4.6.7.	The operating company shall document all transactions to acquire land rights, and all compensation measures and relocation activities.	✓	All displacement-related documentation is stored in Sishen's document control system.
2.4.7.1.	Critical The operating company shall establish and implement procedures to monitor and evaluate the implementation of a Resettlement Action Plan (RAP) or Livelihood Restoration Plan (LRP), and take corrective action as necessary until the provisions of the RAP/LRP and the objectives of this chapter have been met.	✓	The Mine has a resettlement team that has monthly meetings to identify, discuss and remedy grievances related to the Siyathemba Resettlement. There is a post-resettlement working group that historically met monthly to provide feedback on implementation - the group currently meets every quarter. This group is responsible for monitoring the Resettlement Action Plan and provides feedback to the mine. Quarterly monitoring reports are prepared by an external consultant who assesses the mine against resettlement commitments.
2.4.7.2.	Periodically, the operating company shall report to affected people and other relevant stakeholders on progress made toward full implementation of the RAP or LRP.	✓	Evidence demonstrates that feedback is provided through the post-resettlement working group, which is chaired by the mine and the local municipality. Additional feedback is provided through newsletters and annual stakeholder days.
2.4.7.3.	Where resettlement is deemed to pose a risk of significant adverse social impacts the operating company: a. Shall retain competent professionals to verify the operating company's monitoring information and provide advice on additional steps needed to achieve compliance with the requirements of this chapter; and b. Shall commission a completion audit that: i. Occurs after the company deems that its RAP/LRP has been fully and successfully implemented; ii. Is carried out by external resettlement experts; iii. Includes, at a minimum, a review of the mitigation measures implemented by the operating company, a comparison of implementation outcomes against the requirements of this chapter, and a determination as to whether the commitments made in the RAP/LRP have been	✓	The mine has retained the services of resettlement experts to: a. Provide ongoing monitoring and reporting of the resettlement. b. Undertake a close-out audit in late 2022 if deemed that resettlement is complete.

Requirement #	Requirement Text	Rating	Basis for rating
	<p>delivered and the monitoring process can therefore be terminated; and</p> <p>iv. Is made available to affected people and their advisors.</p>		
2.4.8.1.	<p>Where land acquisition and resettlement are the responsibility of the government, the operating company shall collaborate with the responsible government agency, to the extent permitted by the agency, to achieve outcomes that are consistent with this chapter.</p>	—	No government led resettlement has taken place.
2.4.8.2.	<p>The operating company shall identify government resettlement and compensation measures. If these measures do not meet the relevant requirements of this chapter, the operating company shall prepare a supplemental plan that, together with the documents prepared by the responsible government agency, shall address the relevant requirements of this chapter. The company shall include in its supplemental plan, at a minimum:</p> <ul style="list-style-type: none"> a. Identification of affected people and impacts; b. A description of regulated activities, including the entitlements of physically and economically displaced people provided under applicable national laws and regulations; c. The supplemental measures to achieve the requirements of this chapter in a manner that is permitted by the responsible agency and an implementation schedule; and d. The financial and implementation responsibilities of the operating company in the execution of its supplemental plan. 	—	No government led resettlement has taken place.

Requirement #	Requirement Text	Rating	Basis for rating
Chapter 2.5—Emergency Preparedness and Response			
2.5.1.1.	Critical All operations related to the mining project shall have an emergency response plan conforming to the guidelines set forth in <i>United Nations Environment Programme, Awareness and Preparedness for Emergencies at the Local Level (APELL)</i> for Mining.		The site has developed an Emergency Preparedness and Response Plan and an Emergency Preparedness Response Plan specific to the Tailings Facility. Recent Agricultural Forum Meeting Minutes show that the Emergency Preparedness Response Plan is discussed with neighboring landowners and stakeholders. Emergency Response Plans are prepared in conformance with the Anglo American Social Way. Review of the Emergency Response Plan found conformance to the guidelines set forth in the United Nations Environment Program, Awareness and Preparedness for Emergencies at the Local Level (UNEP APELL). However, it is unclear to what extent, if any, the process outlined in the United Nations Environment Program, Awareness and Preparedness for Emergencies at the Local Level (UNEP APELL) has been reviewed by the site.
2.5.1.2.	The operating company shall: <ul style="list-style-type: none"> a. Conduct an exercise to test the plan, with key participants describing how they would respond to a variety of different emergency scenarios, at least every 12 to 24 months; and b. Update the communications contacts of the emergency response plan at least annually. 		A community emergency drill was conducted in September 2021 and stakeholders were notified and responded as required. Records were also reviewed of a response by the mine to a community emergency involving a veld fire in Kathu on 5 August 2021. Section 2 Emergency Telephone Numbers in the Emergency Response Plan were last updated on 27 September 2021. The site involves neighboring farmers in its response to emergencies offsite, including conducting drills.
2.5.2.1.	Critical The emergency response plan shall be developed in consultation with potentially affected communities and workers and/or workers' representatives, and the operating company shall incorporate their input into the emergency response plan, and include their participation in emergency response planning exercises.		The site conducted a stakeholder engagement day on 10 September 2021 and included a presentation on emergency preparedness and response planning (EPRP). EPRP includes establishing a joint operations committee that includes representatives from local government, Anglo American, NGOs/CPF, local emergency response teams and communities. Community emergency response drills are conducted with neighboring farms, including debriefings to capture lessons learned and gather feedback for improving emergency response.
2.5.3.1.	All operations related to the mining project shall be covered by a public liability accident insurance policy that provides financial insurance for unplanned accidental events.		The site has Public Liability & Products Liability coverage through Holdac Insurance LTD and reinsurers in place until 1 July 2022. The policy is renewed annually.

Requirement #	Requirement Text	Rating	Basis for rating
2.5.3.2.	The public liability accident insurance shall cover unplanned accidental events such as flood damage, landslides, subsidence, mine waste facility failures, major spills of process solutions, leaking tanks, or others.	✓	The Summary of Exclusions under the Mine's Comprehensive General Liability coverage includes an exclusion for "occurrences arising out of discharge or contaminant or pollutants unless sudden, unintended and unexpected."
2.5.3.3.	The accident insurance coverage shall remain in force for as long as the operating company, or any successor, has legal responsibility for the property.	✓	The site has Public Liability & Products Liability coverage through Holdac Insurance LTD and reinsurers in place until 1 July 2022. Insurance has been renewed annually. Confirmation that coverage has been continuously maintained will be confirmed in future assessments.
Chapter 2.6—Planning and Financing Reclamation and Closure			
2.6.1.1.	The operating company shall guarantee that the cost of implementing reclamation for exploration activities related to the mining development will be met by the company.	✓	The site has a contract in place with a third-party exploration contractor, Luhlaza, to rehabilitate exploration boreholes. As per the reviewed closure plan, the major rehabilitation is planned as part of the closure plan. Exploration holes are rehabilitated on an ongoing basis.
2.6.1.2.	The operating company shall implement exploration-related reclamation in a timely manner.	⊕	The boreholes in the "exploration areas" where the company has undertaken formal exploration have been rehabilitated. The geology department drills the production boreholes. Production geology boreholes are included in the mine's closure liability calculations on the Deswik Mining Consultants (Pty) Ltd (Deswik) model. A contract is in place with Luhlaza to rehabilitate exploration boreholes. However, no evidence was observed showing the planning and review of rehabilitation by the mine.
2.6.1.3.	Any stakeholder complaints of incomplete or inadequate exploration reclamation, if not resolved by other means, shall be discussed and resolved through the operational-level grievance mechanism (see IRMA Chapter 1.4).	✓	The site has a process and register in place for the reporting and managing grievances. Onsite interviews indicated that no grievances have been recorded to date. A letter was reviewed where a farmer approved the rehabilitation work that was concluded after exploration boreholes were developed on their farm. No complaints were noted.
2.6.2.1	Critical Prior to the commencement of mine construction activities the operating company shall	✓	The first reclamation and closure plan for Sishen was developed in 2008. Since 2008 the plan has been updated annually. Any new developments that have been

Requirement #	Requirement Text	Rating	Basis for rating
	prepare a reclamation and closure plan that is compatible with protection of human health and the environment, and demonstrates how affected areas will be returned to a stable landscape with an agreed post-mining end use.		<p>completed according to the Environmental Impact Assessment process have been added to the reclamation and closure plan.</p> <p>The plan for 2022 was reviewed and found to be compliant with local South African regulations as well as the IRMA requirements of Protecting both Human health and the Environment and the restoration of disturbed land to a stable and agreed post-mining use.</p>
2.6.2.2	<p>At a minimum, the reclamation and closure plan shall contain:</p> <ul style="list-style-type: none"> a. A general statement of purpose; b. Site location and background Information; c. A description of the entire facility, including individual site features; d. The role of the community in reviewing the reclamation and closure plan; e. Agreed-upon (after-ESIA) post-mining land use and facility use; f. Source and pathway characterization including geochemistry and hydrology to identify the potential discharge of pollutants during closure; g. Source mitigation program to prevent the degradation of water resources; h. Interim operations and maintenance, including process water management, water treatment, and mine site and waste site geotechnical stabilization; i. Plans for concurrent or progressive reclamation and revegetation, which should be employed wherever practicable; j. Earthwork: <ul style="list-style-type: none"> i. Stabilization and final topography of the reclaimed mine lands; ii. Storm water runoff/run-on management; iii. Topsoil salvage to the maximum extent practicable; 	✔	<p>The site developed the first closure plan in 2008, and this plan has been annually updated by an appointed third party. The closure plan, dated October 2021, was reviewed, and found to be compliant with the IRMA requirements as set out in the IRMA standard.</p>

Requirement #	Requirement Text	Rating	Basis for rating
	<ul style="list-style-type: none"> iv. Topsoil storage in a manner that preserves its capability to support plant regeneration; k. Revegetation/Ecological Restoration: <ul style="list-style-type: none"> i. Plant material selection, prioritizing native species as appropriate for the agreed post-mine land use; ii. Quantitative revegetation standards with clear measures to be implemented if these standards are not met within a specified time; iii. A defined period, no longer than 10 years, when planned revegetation tasks shall be completed; iv. Measures for control of noxious weeds; v. Planned activities to restore natural habitats (as well as biodiversity, ecosystem services and other conservation values as per Chapter 4.6); l. Hazardous materials disposal; m. Facility demolition and disposal, if not used for other purposes; n. Long-term maintenance; o. Post-closure monitoring plan; p. The role of the community in long-term monitoring and maintenance (if any); and q. A schedule for all activities indicated in the plan. 		
2.6.2.3.	<p>The reclamation and closure plan shall include a detailed determination of the estimated costs of reclamation and closure, and post-closure, based on the assumption that reclamation and closure will be completed by a third party, using costs associated with the reclamation and closure plan as implemented by a regulatory agency. These costs shall include, at minimum:</p> <ul style="list-style-type: none"> a. Mobilization/demobilization; b. Engineering redesign, procurement, and construction management; 	⊕	<p>The Reclamation and Closure Plan includes the estimated costs of reclamation and closure (decommissioning and restoration costs for different zones). The current closure plan includes a post-closure monitoring plan, but no costs were available for review.</p>

Requirement #	Requirement Text	Rating	Basis for rating
	<ul style="list-style-type: none"> c. Earthwork; d. Revegetation/Ecological Restoration; e. Disposal of hazardous materials; f. Facility demolition and disposal; g. Holding costs that would be incurred by the regulatory agency following a bankruptcy in the first two years before actual reclamation begins, including: <ul style="list-style-type: none"> i. Interim process water and site management; and ii. Short-term water treatment; h. Post-closure costs for: <ul style="list-style-type: none"> i. Long-term water treatment; and ii. Long-term monitoring and maintenance; i. Indirect Costs: <ul style="list-style-type: none"> i. Mobilization/demobilization; ii. Engineering redesign, procurement and construction management; iii. Contractor overhead and profit; iv. Agency administration; v. Contingency; and j. Either: <ul style="list-style-type: none"> i. A multi-year inflation increase in the financial surety; or ii. An annual review and update of the financial surety. 		
2.6.2.4.	The operating company shall review and update the reclamation and closure plan and/or financial assurance when there is a significant change to the mine plan, but at least every 5 years, and at the	✔	The first Mine Closure Plan that Sishen developed in 2008 was reviewed and updated every 3 years. Since 2019, this process is done annually. Sishen appoints a third party, and the closure plan is updated using the Deswick model. Once the costs have been determined, Sishen guarantees the Department of Minerals and Energy that the shortfall has been allocated to the fund.

Requirement #	Requirement Text	Rating	Basis for rating
	request of stakeholders provide them with an interim reclamation progress report.		
2.6.2.5.	<p>If not otherwise provided for through a regulatory process, prior to the commencement of the construction of the mine and prior to completing the final reclamation plan the operating company shall provide stakeholders with at least 60 days to comment on the reclamation plan. Additionally:</p> <ul style="list-style-type: none"> a. If necessary, the operating company shall provide resources for capacity building and training to enable meaningful stakeholder engagement; and b. Prior to completing the final reclamation plan, the operating company shall provide affected communities and interested stakeholders with the opportunity to propose independent experts to provide input to the operating company on the design and implementation of the plan and on the adequacy of the completion of reclamation activities prior to release of part or all of the financial surety. 	⊗	<p>When Sishen mine opened in 1956, consultation with interested and affected parties was not a legal requirement and the site did not enter any discussions with the interested and affected parties. The Sishen Closure Plan references several stakeholder meetings during 2016 and 2017. These meetings focused on issues and impacts related to the mine operation. During these meetings, issues were raised by the stakeholders with regards to potential implications for mine closure. However, there is no evidence that stakeholders had the opportunity to specifically comment on the reclamation plan. No evidence was available to demonstrate a process for providing stakeholders with an opportunity to comment on the reclamation plan and to propose independent experts to provide input into this plan.</p>
2.6.2.6.	<p>Critical The most recent version of the reclamation and mine closure plan, including the results of all reclamation and closure plan updates, shall be publicly available or available to stakeholders upon request.</p>	☑	<p>Although no such request has been recorded, the site reports that should a public person or entity request closure and reclamation information it will be made available to such parties.</p>
2.6.3.1.	<p>Open pits shall be partially or completely backfilled if:</p> <ul style="list-style-type: none"> a. A pit lake is predicted to exceed the water quality criteria in IRMA Chapter 4.2; and b. The company and key stakeholders have agreed that backfilling would have socioeconomic and environmental benefits; and c. It is economically viable. 	◐	<p>Large areas of the pit have been backfilled. However, it is acknowledged that it will not be possible to backfill the entire pit, given that large volumes of iron ore have been removed and there is not enough material to backfill. Consultation with respect to the reclamation plan is already included in the site's Stakeholder Engagement Plan (SEP). The closure plan states that the open pit will remain as a final void and will not be backfilled in total. There is no evidence that the company has discussed with stakeholders the potential socioeconomic or environmental benefits or economic viability of backfilling. The legally required public participation process, which is followed throughout the environmental impact assessment (EIA) process, allows for information on the pit reclamation to be made public.</p>

Requirement #	Requirement Text	Rating	Basis for rating
2.6.3.2.	Underground mines shall be backfilled if: <ul style="list-style-type: none"> a. Subsidence is predicted on lands not owned by the mining company; and b. If the mining method allows. 	—	There are no underground mining activities at Sishen Mine.
2.6.4.1.	Critical Financial surety instruments shall be in place for mine closure and post-closure.	⊖	<p>A percentage of the closure liability provision for the site falls under the Kumba Rehabilitation Trust. The site has been contributing to the trust since August 1993. The value of the Kumba Rehabilitation Trust at a point in time is shown in the trustees' documentation. The other part of the liability provision for the site is provided for in terms of bank guarantees. The amounts for both funds are updated annually.</p> <p>In a letter to the Regional Manager of the Department of Mineral Resources and Energy, Kumba Iron Ore Limited reported the latest estimated closure cost, the amount in a trust fund, bank guarantees and the shortfall against the estimated closure cost. The letter goes on to state that Sishen Iron Ore Company (PTY) Ltd, the holder of a mining right, is in the process of addressing the identified shortfall by securing a bank guarantee. No additional information was provided to the audit team to confirm the mine's securing of the additional bank guarantee in order to satisfy the shortfall. This requirement will be reviewed during the surveillance assessment, including the status of the shortfall.</p>
2.6.4.2.	Financial surety instruments shall be: <ul style="list-style-type: none"> a. Independently guaranteed, reliable, and readily liquid; b. Reviewed by third-party analysts, using accepted accounting methods, at least every five years or when there is a significant change to the mine plan; c. In place before ground disturbance begins; and d. Sufficient to cover the reclamation and closure expenses for the period until the next financial surety review is completed. 	⊕	From 2019, closure costs are reviewed annually. The site appoints a third party, and the closure plan is updated using the Deswick model. Once the costs have been determined, the site guarantees the Department of Minerals and Energy that the shortfall has been allocated to the fund.
2.6.4.3.	Self-bonding or corporate guarantees shall not be used.	⊕	The site provides for closure liability in terms of the Kumba Rehabilitation Trust and Bank Guarantees. The site appoints a third party, and the closure plan is updated using the Deswick model. Once the costs have been determined by the site, it

Requirement #	Requirement Text	Rating	Basis for rating
			guarantees the Department of Minerals and Energy that the shortfall has been allocated to the fund.
2.6.4.4.	The results of all approved financial surety reviews, with the exception of confidential business information, shall be made available to stakeholders upon request.	⊗	There is no evidence that the site has a process to provide copies of financial surety reviews to stakeholders in case of requests. No evidence was provided of the determination of post-closure costs.
2.6.4.5.	<p>Prior to the commencement of the construction of the mine, prior to any renewal of the financial surety, and prior to final release of the financial surety the operating company shall provide the public with at least 60 days to comment on the adequacy of the financial surety. Additionally:</p> <ul style="list-style-type: none"> a. Where the company deems certain financial surety information to be confidential business information it shall make the data available to the IRMA auditor and satisfy the auditor that the grounds for confidentiality are reasonable. If certain information is not included for confidential reasons, the fact that the information has been withheld shall be disclosed along with the financial surety. b. If necessary, the operating company shall provide resources for capacity building and training to enable meaningful stakeholder engagement; and c. Prior to the beginning of closure reclamation activities the operating company shall provide affected communities and interested stakeholders with the opportunity to propose independent experts to review the financial surety. 	⊗	Prior to construction in 1956 there was no requirement for financial surety to be in place for closure and post-closure costs. During the environmental impact assessment process for the expansion there was a public participation process. Even though the site has developed and implemented stakeholder engagement programs, with several communications channels currently in place, there is no formal process in place to provide stakeholders the opportunity to comment on the annually reviewed reclamation costs.
2.6.4.6.	<p>The terms of the financial surety shall guarantee that the surety is not released until:</p> <ul style="list-style-type: none"> a. Revegetation/ecological restoration and reclamation of mine and waste sites and have been shown to be effective and stable; and 	⊗	The financial surety is held and controlled by the Department of Minerals and Energy and is therefore released by the Department of Mineral Resources (DMR). The site has no control over the release of the funds. Evidence was not provided confirming that the financial surety will not be released until revegetation/ecological restoration and reclamation of mine and waste sites have been shown to be effective and stable. Also, evidence was not available to show how the site

Requirement #	Requirement Text	Rating	Basis for rating
	b. Public comment has been taken before partial or final surety release.		ensures public comment will be received before the financial surety is partially or fully released.
2.6.5.1.	Monitoring of closed mine facilities for geotechnical stability and routine maintenance is required in post-closure. The reclamation and closure plan shall include specifications for the post-closure monitoring and maintenance of all mine facilities, including, but not limited to: <ul style="list-style-type: none"> a. Inspection of surface (open pits) and underground mine workings; b. Inspection and maintenance of mine waste facilities including effectiveness of cover and any seepage capture systems; and c. Mechanisms for contingency and response planning and implementation. 		The Mine Closure Plan (2019) establishes the criteria for the closure liability estimates, including quantities changes (physical infrastructures, bio-physical aspects, mine residues deposits, and roads) and rates revision (mainly demolition and re-vegetation). Table 24: Unscheduled Closure Liability (Dec 2018) includes general items related to decommissioning and restoration. Monitoring and specialist studies, pollution control dams and maintenance are three of the categories considered, but there is no detail regarding what type of monitoring, maintenance or controls are planned.
2.6.5.2.	Monitoring locations for surface and groundwater shall be sufficient to detect off-site contamination from all closed mine facilities, as well as at the points of compliance.		The Integrated Water and Waste Management Plan that was updated in 2020 includes a detailed monitoring plan for all water sources at the site. According to staff interviewed, taking into consideration the current life of mine, the detailed monitoring schedule has not been developed.
2.6.5.3.	Water quality monitoring locations shall be sampled until IRMA Water Quality Criteria have been met for at least 5 years, with a minimum of 25 years of post-closure data. The 25-year minimum may be waived if ongoing water quality monitoring demonstrates and modeling predicts that no contamination of surface or ground waters is occurring or will occur, respectively.		Taking into consideration the life of mine, the Closure Plan indicates that monitoring will be done. A detailed stormwater plan for post-closure and integration thereof into the financial liability estimate is being completed and will be integrating into the Closure Plan update in 2022.
2.6.5.4.	Biologic monitoring shall be included in post-closure monitoring if required to ensure there is no ongoing post-closure damage to aquatic and terrestrial resources.		Biodiversity (including terrestrial and aquatic) general monitoring criteria, frequency and scope are defined in the Closure Plan (version 2019) Spreadsheet. "SIOM Closure Liability Estimate YE 2021," provides a breakdown of 2021 closure liability as prepared by EXM Advisory Services (Pty) Ltd (EXM) and Deswik. A detailed stormwater plan for post-closure and integration thereof into the financial

Requirement #	Requirement Text	Rating	Basis for rating
			liability estimate is being completed and will be integrating into the mine closure update in early 2022.
2.6.5.5.	If a pit lake is present, pit lake water quality shall be monitored, and if potentially harmful to people, wildlife, livestock, birds, or agricultural uses, adequate measures shall be taken to protect these organisms.	⊗	A detailed stormwater plan, for post-closure and integration into the financial liability estimate, is being completed and will be integrated into the Mine Closure Update during 2022. Furthermore, the post-closure monitoring plan does not include any details regarding the testing of the pit lake water quality.
2.6.6.1.	<p>Long-term water treatment shall not take place unless:</p> <ul style="list-style-type: none"> a. All practicable efforts to implement best practice water and waste management methods to avoid long-term treatment have been made; and b. The operating company funds an engineering and risk assessment that: <ul style="list-style-type: none"> i. Is carried out by an independent third-party: ii. Evaluates the environmental and financial advantages/disadvantages and risks of long-term water treatment versus other mitigation methods; iii. Incorporates data on the failure rates of the proposed mitigation measures and water treatment mechanisms; iv. Determines that the contaminated water to be treated perpetually poses no significant risk to human health or to the livelihoods of communities if the discharge were to go untreated; and v. Includes consultations with stakeholders and their technical representatives during the design of the study, and discussion of findings with affected communities prior to mine construction or expansion. 	—	Sishen mine is an existing mine. The mine reported that currently no proposed expansion that would lead to the requirement for long-term water treatment is planned.
2.6.6.2	If a decision is made to proceed with long-term water treatment, the operating company shall take all	—	. Currently no final decision has been made regarding long-term water treatment.

Requirement #	Requirement Text	Rating	Basis for rating
	practicable efforts to minimize the volume of water to be treated.		
2.6.7.1.	The operating company shall provide sufficient financial surety for all long-term activities, including: mine closure and post-closure site monitoring, maintenance, and water treatment operations. Financial assurance shall guarantee that funds will be available, irrespective of the operating company's finances at the time of mine closure or bankruptcy.	⊗	A percentage of the closure liability provision for Sishen falls under the Kumba Rehabilitation Trust. The value of the Kumba Rehabilitation Trust at a point in time is shown in the trustees' documentation. The other part of the liability provision for Sishen is provided for in terms of bank guarantees. A detailed stormwater plan for post-closure and integration thereof into the financial liability estimate is being completed and will be integrating into the mine closure update in 2022.
2.6.7.2.	If long-term water treatment is required post-closure: <ul style="list-style-type: none"> a. The water treatment cost component of the post-closure financial surety shall be calculated conservatively, and cost calculations based on treatment technology proven to be effective under similar climatic conditions and at a similar scale as the proposed operation; and b. When mine construction commences, or whenever the commitment for long-term water treatment is initiated, sufficient funding shall be established in full for long-term water treatment and for conducting post-closure monitoring and maintenance for as long as IRMA Water Quality Criteria are predicted to be exceeded. 	⊕	A detailed study to confirm post-closure water quality has not been undertaken. However, it was already identified as an action to improve the site's closure knowledge. A feedback memorandum, dated 02 October 2021, was provided with respect to progress on various water-related actions. These include: (1) determining characteristics of dewatering cone post-closure; (2) forecasting hydrological and geochemical characteristics of pit lake post-mine closure; (3) developing a pit lake development strategy to address post-closure impacts; and (4) possible use of pit water as a regional water source post-closure. Kumba's Principal for Environmental Management also obtained a proposal from a consultant to undertake various pit lake and post-closure water quality assessments.
2.6.7.3.	The post-closure financial surety shall be recalculated and reviewed by an independent analyst at the same time as the reclamation financial surety.	☑	EXM and Deswik were appointed by Sishen Iron Ore Company (Pty) Ltd ("SIOC") to review and update the quantum of financial provision, as of October 2021, calculated using contractor and/or third-party rates.
2.6.7.4.	Long-term Net Present Value (NPV) calculations utilized to estimate the value of any financial surety shall use conservative assumptions, including: <ul style="list-style-type: none"> a. A real interest rate of 3% or less; unless the entity holding the financial surety can document that a higher long-term real interest rate can be achieved; and 	⊖	The SIOM Closure Liability Estimate YE 2021 and SIOM Update of Financial Quantum Provision 2021 prepared by EXM Advisory Services (Pty) Ltd and Deswik Mining Consultants (Pty) Ltd. Several refinements are required for the site to reach fully meets.



Requirement #	Requirement Text	Rating	Basis for rating
	b. NPV calculation will be carried out until the difference in the NPV between the last two years in the calculations is US \$10.00 or less (or its equivalent in other currencies).		

Principle 3: Social Responsibility





RATING LEGEND

Description of performance

	Fully meets
	Substantially meets
	Partially meets
	Does not meet
	Not relevant

Requirement #	Requirement Text	Rating	Basis for rating
Chapter 3.1—Fair Labor and Terms of Work			
3.1.1.1.	The operating company shall adopt and implement human resources policies and procedures applicable to the mining project that set out its approach to managing workers in a manner that is consistent with the requirements of this chapter and national (i.e., host country) law.		The corporate code of conduct indicates adherence to international business ethics and labor / human rights best practice and performance standards and national legislation. Interviews with employees and contractors confirm that human resources policies and procedures have been fully operationalized through the employee handbook and induction process. Employees and contractors are aware of the grievance procedure and multiple platforms available for lodging a grievance.
3.1.2.1.	Critical The operating company shall respect the rights of workers to freedom of association and collective bargaining.		Policies and procedures reference the International Labour Organization (ILO) core labor rights, including the freedom of association and collective bargaining. agreement between Sishen mine and the Association of Mineworkers & Construction union. This provided evidence of implementation. Induction includes human rights and antibullying, harassment and victimization training. Interviews with operating company employees confirm that they have been informed about union membership by human resources and union representatives during induction. A union membership application was provided. The process is voluntary. However, interviews with contracted workers indicate that their employers may strongly discourage efforts to participate in unionization.

Requirement #	Requirement Text	Rating	Basis for rating
3.1.2.2.	Where national law substantially restricts workers' organizations, the operating company shall not restrict workers from developing alternative mechanisms to express their grievances and protect their rights regarding working conditions and terms of employment. The operating company shall not seek to influence or control these mechanisms.	—	Union formation is not prohibited by law.
3.1.2.3.	The operating company shall engage with workers' representatives and workers' organizations and provide them with information needed for meaningful negotiation in a timely manner.	☑	Union agreements state the engagement procedures with workers' representatives and the organization. A retrenchment strategy includes consultation with unions. A wage agreement was provided. Minutes from the Sishen Leadership Forum were meeting provided. Interviews with workers and union representatives indicate the operating company provides information to unions in a timely manner and includes union representatives in retrenchment planning and implementation.
3.1.2.4.	Workers' representatives shall have access to facilities needed to carry out their functions in the workplace. This includes access to designated non-work areas during organizing efforts for the purposes of communicating with workers, as well as accommodations for workers' representatives at fly-in/fly-out or other remotely located mine sites, where relevant.	☑	The recognition agreements signed between the site and the association of workers state that access to needed facilities will be provided. Interviews with managers confirm that facilities are provided to unions. The operating company also facilitates offsite venues for periodic union meetings.
3.1.2.5.	The operating company shall remain neutral in any legitimate unionizing or worker-organizing effort; shall not produce or distribute material meant to disparage legitimate trade unions; shall not establish or support a company union for the purpose of undermining legitimate worker representation; and shall not impose sanctions on workers' organizations participating in a legal strike.	☑	Recognition agreements with the union were provided. Interviews with managers and union representatives confirm the operating company's neutrality during unionization.
3.1.2.6.	Upon employment, the operating company shall: <ul style="list-style-type: none"> a. Inform workers of their rights under national labor and employment law; 	☑	Interviews with managers and operating company employees confirm that during one-on-one induction meetings with a human resources representative they are informed of their right to join a union. Information is also provided by union representatives, allowing them to ask questions regarding collective worker rights. The Human Rights Policy provided references H the ILO Declaration on

Requirement #	Requirement Text	Rating	Basis for rating
	<p>b. Inform workers that they are free to join a workers' organization of their choosing without any negative consequences or retaliation from the operating company;</p> <p>c. If relevant, inform workers of their rights under any applicable collective agreement; and</p> <p>d. If relevant, provide workers with a copy of the collective bargaining agreement and the contact information for the appropriate trade union (or workers' organization) representative.</p>		Fundamental Principles and Rights at Work. Copies of collective agreements are available to workers on request.
3.1.2.7.	The operating company shall not discriminate or retaliate against workers who participate, or seek to participate, in legitimate workers' organizations or in a legal strike.		Recognition agreements, the code of conduct, the grievance procedure, and the Human Rights Policy were provided. Interviews with managers, workers and union representatives did not indicate interference, discrimination or retaliation against workers participating in union activities. However, interviews with contracted workers indicate that their employers may strongly discourage efforts to participate in unionization.
3.1.2.8.	Where the operating company is a party to a collective bargaining agreement with a workers' organization, the terms of the agreement shall be respected. Where such an agreement does not exist, or an agreement does not address specific requirements in this chapter, the operating company shall meet the relevant IRMA requirements.		Collectively bargained recognition agreements with unions were provided. Interviews with managers and workers confirm respect for worker rights.
3.1.2.9.	The operating company shall not make use of short-term contracts or other measures to undermine a collective bargaining agreement or worker organizing effort, or to avoid or reduce obligations to workers under applicable labor and social security laws and regulations.		Recognition agreements and the Staffing Recruitment and Selection Procedure were provided. While the operating company employs a sizable contractor workforce, interviews with managers and workers do not support a finding that short-term workers are utilized to undermine collective bargained arrangements.
3.1.2.10.	The operating company shall not hire replacement workers in order to prevent, undermine or break up a legal strike, support a lockout, or avoid negotiating in good faith. The company may, however, hire replacement workers to ensure that critical		Recognition agreements and the Staffing Recruitment and Selection Procedure were provided. Interviews with managers, workers and union representatives confirm that replacement workers have not been utilized to undermine collective bargaining.

Requirement #	Requirement Text	Rating	Basis for rating
	maintenance, health and safety, and environmental control measures are maintained during a legal strike.		
3.1.3.1.	The operating company shall base employment relationships on the principles of equal opportunity and fair treatment, and shall not discriminate or make employment decisions on the basis of personal characteristics unrelated to inherent job requirements.	✔	The company has in place an approved employment equity plan to be renewed during 2022. The employee handbook also references the principles of creating equal opportunities and opposition to unfair treatment or discrimination based on personal characteristics. While there is a sizable contractor workforce, interviews with managers and workers indicate that the operating company is an equal opportunity employer.
3.1.3.2	<p>Exceptions to 3.1.3.1 may be made with respect to hiring and recruitment in the case of:</p> <ul style="list-style-type: none"> a. Targets or quotas mandated by law; b. Targets developed through local agreements for the employment of local residents, indigenous peoples, or individuals who have been historically disadvantaged; or c. Operating company targets for the employment of local residents, indigenous peoples, or individuals who have been historically disadvantaged that are expressed in publicly accessible policies with explicit goals and justification for such targets. 	✔	The employee handbook references the company setting targets in the employment equity plan for people from under-represented groups. National law requires an employment equity plan. The Investment Development Model document lays out criteria for diversity and local hiring (also referred to in the Human Resources Principles and Policies document).
3.1.3.3.	Critical The operating company shall take measures to prevent and address harassment, intimidation, and/or exploitation, especially in regard to female workers.	●	The Sexual Harassment Policy and a workplace procedure identifying the principles and procedures to be followed are in place. bullying, harassment, and victimization training is compulsory for all employees. Harassment prohibition is included during induction training. Two discrimination and harassment case summaries, including the resolution action taken, were provided. Interviews with managers and workers confirm a zero tolerance for harassment. Worker examples were provided of how the grievance process was available and effectively used. Interviews with contracted workers did not indicate specific instances of harassment, intimidation or exploitation of women, but did highlight a tendency for contracted workers to refrain from reporting grievances through available mechanisms due to perceived inaction.

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3.1.4.1.	Prior to implementing any collective dismissals, the operating company shall carry out an analysis of alternatives to retrenchment. If the analysis does not identify viable alternatives to retrenchment, a retrenchment plan shall be developed in consultation with workers, their organizations, and, where appropriate, the government. The plan shall be based on the principle of non-discrimination, and be implemented to reduce the adverse impacts of retrenchment on workers.	☑	Retrenchment policy includes consultation with unions. Interviews with managers indicate that 2016 and 2021 retrenchments included assessment of alternatives. A consolidated retrenchment document was developed with external stakeholder input. Sishen Leadership Forum minutes were provided, indicating a functioning forum where retrenchment is discussed with unions. Interviews with workers and union representatives confirm active participation in retrenchment planning and implementation.
3.1.4.2.	The operating company shall ensure that all workers receive notice of dismissal and severance payments mandated by law and collective agreements in a timely manner. All outstanding back pay, social security benefits, and pension contributions and benefits shall be paid on or before termination of the working relationship, or in accordance with a timeline agreed through a collective agreement. Payments shall be made directly to workers, or to appropriate institutions for the benefit of workers. Where payments are made for the benefit of workers, they shall be provided with evidence of such payments.	☑	The operating company follows national legislative requirements. The Human Resources Policy lays out procedures including maintenance of housing for a 3-month period following termination, medical prior to severance pay, severance options (including for fixed term employees), provision of emotional support and financial training, etc. Procedure re: communication of retrenchment provided on slide 28 of the "Storm Proofing" document. Interviews with managers and workers confirm pay slips provide information on payments and deductions.
3.1.5.1.	<p>Critical The operating company shall provide a grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns. The mechanism, at minimum:</p> <ul style="list-style-type: none"> a. Shall involve an appropriate level of management and address concerns promptly, using an understandable and transparent process that provides timely feedback to those concerned, without any retribution; b. Shall allow for anonymous complaints to be raised and addressed; c. Shall allow workers' representatives to be present, if requested by the aggrieved worker; and 	☑	The grievance mechanism and form were provided, as mentioned in the employee handbook. The procedure specifically mentions employees have the right to appeal to higher managerial authority if a grievance cannot be resolved satisfactorily and have recourse to other formal / informal means of airing grievances. Employees have the right to be represented by union officials. The grievance mechanism is available on multiple platforms. Grievances can be lodged anonymously. Interviews with workers indicate that employees are aware of the process and feel comfortable lodging grievances. Managers provided two examples of grievances that had been taken through the process.

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	d. Shall not impede access to other judicial or administrative remedies that might be available under the law or through existing arbitration procedures, or substitute for grievance mechanisms provided through collective agreements.		
3.1.5.2.	The operating company shall inform the workers of the grievance mechanism at the time of recruitment and make it easily accessible to them.	☑	Interviews with managers and workers confirm that workers are informed of the grievance mechanism by a human resources representative during induction, and by a union representative. The grievance mechanism is available on the operating company's website, a phone app and through the company's intranet.
3.1.5.3.	The operating company shall maintain a record of grievances and the company's actions taken to respond to and/or resolve the issues.	☑	A screenshot of the online Navigator-based Grievance List was provided that included a substantial list of grievances over the year reviewed. Randomly selected by the auditor, two examples of grievances that had taken through the process were presented.
3.1.6.1.	The operating company shall have documented disciplinary procedures (or their equivalent) that are made available to all workers.	☑	The disciplinary code and procedure and the dispute form are mentioned in the employee handbook. The disciplinary list was provided. Workers can request employee relations information from a human resources representative or union representative regarding disciplinary procedures. Interviews support evidence was provided.
3.1.6.2.	The operating company shall not use corporal punishment, harsh or degrading treatment, sexual or physical harassment, mental, physical or verbal abuse, coercion or intimidation of workers during disciplinary actions.	☑	South Africa legislation prohibits the use of corporal punishment. The Human Rights Policy refers to prohibition of all forms of discrimination and physical, sexual, or other harassment and verbal abuse or intimidation of employees. The disciplinary code and procedure indicate a fair process. Interviews with workers indicate that disciplinary action does not include harsh or degrading treatment.
3.1.6.3.	The operating company shall keep records of all disciplinary actions taken.	☑	A list of disciplined employees was provided. In discussing the record-keeping process, management indicated the employees could request their employee file information from a human resources representative or union representative regarding disciplinary actions taken and attached to their file.
3.1.7.1.	The operating company shall document the ages of all workers.	☑	The Code of Conduct and Human Rights Policy prohibits the use of child labor. The age profile and employee list indicate no workers under 19 are employed. Prospective contractors and employees must provide national identity documents



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			for verification. The Recruitment and Selection Procedure specifically mandates security clearance checks for supply chain and security services.
3.1.7.2.	Critical Children (i.e., persons under the age of 18) shall not be hired to do hazardous work (e.g., working underground, or where there is exposure to hazardous substances).	☑	National law prohibits child labor in hazardous work. From evidence provided and interviews with managers and workers there is no evidence to suggest any child labor has been used at the site. In 2021, a business rule was implemented to prevent saving an employee or contractor on company systems with an age below a minimum requirement.
3.1.7.3.	Critical The minimum age for non-hazardous work shall be 15, or the minimum age outlined in national law, whichever is higher.	☑	Child labor is prohibited under the company's Human Rights Policy and Code of Conduct. An age list and age profile were provided. There is no evidence that child labor is being used. In 2021, a business rule was implemented to prevent saving an employee or contractor on company systems with an age below a minimum requirement.
3.1.7.4.	When a child is legally performing non-hazardous work, the company shall assess and minimize the risks to their physical or mental health, and ensure that regular monitoring of the child's health, working conditions and hours of work occurs by the national labor authority, or if that is not possible, by the company itself.	—	Through documents reviewed and interviews with managers and workers there is no evidence that child labor is being used. Managers indicate compliance with relevant national laws.
3.1.7.5.	If the operating company discovers that a child under the minimum age outlined in 3.1.7.2 and 3.1.7.3 is performing hazardous or non-hazardous work: <ul style="list-style-type: none"> a. The child shall be removed immediately from his or her job; and b. Remediation procedures shall be developed and implemented that provide the child with support in his or her transition to legal work or schooling, and that take into consideration the welfare of the child and the financial situation of the child's family. 	—	Through documents reviewed and interviews with managers and workers there is no evidence that child labor is being used. Interviews with managers indicate compliance with relevant national laws.
3.1.7.6.	Where there is a high risk of child labor in the mine's supply chain, the operating company shall develop and implement procedures to monitor its suppliers	—	Through documents reviewed and interviews with managers and workers there is no evidence that there is a high risk of child labor being used in the operating company's supply chain. Interviews with managers indicate compliance with

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	to determine if children below the minimum age for hazardous or non-hazardous work are being employed. If any cases are identified, the operating company shall ensure that appropriate steps are taken to remedy them. Where remedy is not possible, the operating company shall shift the project's supply chain over time to suppliers that can demonstrate that they are complying with this chapter.		relevant national laws. A business rule was implemented. Monthly business forum meetings provide a process to discuss and monitor compliance. Contract terms require compliance with Voluntary Principles human rights requirements.
3.1.8.1.	Critical The operating company shall not employ forced labor or participate in the trafficking of persons.	☑	Interviews with managers and workers do not indicate that forced labor is used by the operating company or its business partners (suppliers). The Human Rights Policy prohibits the use of forced labor in any of the site's operations, as does national legislation. The Social Management Plan provided suggests that forced labor may exist in the area. Key intelligence official contract terms include compliance with Voluntary Principles human rights requirements. Monthly business forum meetings and key performance indicators (KPIs) provide a process to discuss and monitor compliance.
3.1.8.2.	Where there is a high risk of forced or trafficked labor in the mine's supply chain, the operating company shall develop and implement procedures to monitor its suppliers to determine if forced labor or trafficked workers are being employed. If any cases are identified, the operating company shall ensure that appropriate steps are taken to remedy them. Where remedy is not possible, the operating company shall shift the project's supply chain over time to suppliers that can demonstrate that they are complying with this chapter.	—	From interviews with managers and workers there is no evidence that there is a high risk of forced labor being used by the site or suppliers.
3.1.9.1.	The operating company shall pay wages to workers that meet or exceed the higher of applicable legal minimum wages, wages agreed through collective wage agreements, or a living wage.	☑	The Human Resources Principles and Policies state that employees will be paid according to local market conditions and in no case below the local living wage. The wage agreement lays out agreed-upon and negotiated terms for wages paid between workers and company (for National Union of Mineworkers [NUM]). Interviews with workers confirm compensation follows legislation, collective agreements, or employment contract terms.




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3.1.9.2.	Overtime hours shall be paid at a rate defined in a collective bargaining agreement or national law, and if neither exists, at a rate above the regular hourly wage.	☑	Overtime policy states that payment for overtime is made at the normal hourly rate for the "actual hours worked" (Section 8.5.1.1.). It is the same policy for work on Sundays and public holidays. For employees working under a collective agreement, the rate for overtime is 1.5 x the normal rate. Interviews with non-unionized and contracted workers indicated overtime is paid according to the operating company's policy and consistent with national law..
3.1.9.3.	All workers shall be provided with written and understandable information about wages (overtime rates, benefits, deductions and bonuses) before they enter employment, and for the pay period each time they are paid.	☑	The employment contract explains wages, deductions, benefits, etc. in an understandable way. The pay slip provides information on how wages and deductions are made and determined. Workers can enquire with human resources staff regarding wage and deductions queries and receive a detailed pay slip on request.
3.1.9.4.	The operating company shall pay wages in a manner that is reasonable for workers (e.g., bank transfer, cash or check).	☑	Interviews with managers and workers confirm a bank transfer of wages for all employees and contractors. Pay slip and overtime pay slip examples were provided.
3.1.9.5.	The operating company shall ensure that deductions from wages are not made for disciplinary purposes unless one of the following conditions exist: <ul style="list-style-type: none"> a. Deductions from wages for disciplinary purposes are permitted by national law, and the law guarantees the procedural fairness of the disciplinary action; or b. Deductions from wages for disciplinary purposes are permitted in a freely negotiated collective bargaining agreement or arbitration award. 	☑	The Disciplinary Code and Procedure indicates that pay will only be withheld in accordance with national legislation or if an employee is likely to be terminated for a serious offence and the operating company wishes to extenuate the punishment. Manager interviews indicate a no work-no pay rule applies. This is only applicable for non-attendance without permission. The policy prohibiting withholding of wages in other potential scenarios was provided. Wages may also be withheld during a legal strike. Interviews with workers confirm pay has not been withheld for disciplinary purposes.
3.1.10.1.	The operating company shall ensure that: <ul style="list-style-type: none"> a. Regular working hours do not exceed eight hours per day, or 48 per week. Where workers are employed in shifts the 8-hour day and 48-hour week may be exceeded, provided that the average number of regular hours worked over a 3-week period does not exceed 8 hours per day and 48 hours per week; 	☑	Interviews with managers indicate that the site complies with national legislation and its basic conditions of work policy. Evidence provided indicates normal working hours and overtime at the site. (Regular hours are not expected to exceed 45 hours, and overtime should not exceed 10 hours except for emergency work). Interviews with workers indicate overtime is consensual and compressed work weeks and shifts comply with working hour requirements.



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	<ul style="list-style-type: none"> b. Workers are provided with at least 24 consecutive hours off in every 7-day period; and c. Overtime is consensual, and limited to 12 hours a week. d. Exceptions to 3.1.10.1.b and c shall be allowed at mines in remote locations if: <ul style="list-style-type: none"> i. A freely negotiated collective bargaining agreement is in force that allows variances to the rest and/or overtime hours above; and ii. Through consultations with workers' representatives, a risk management process that includes a risk assessment for extended working hours is established to minimize the impact of longer working hours on the health, safety and welfare of workers. 		
3.1.10.2.	<p>Where neither national law nor a collective bargaining agreement includes provisions for worker leave, the operating company shall, at minimum, provide:</p> <ul style="list-style-type: none"> a. An annual paid holiday of at least three working weeks per year, after achieving one year of service; and b. A maternity leave period of no less than 14 weeks. 	✔	Interviews with managers and workers indicate that the site follows national law requirements with respect to leave. NUM and Association of Mineworkers and Construction Union (AMCU) recognition agreements lay out appropriate leave provisions for their bargaining members. Leave policies were provided. Contractors typically do not receive the leave afforded to employees, but contract terms comply with national leave requirements.
Chapter 3.2—Occupational Health and Safety			
3.2.1.1.	The operating company shall implement a health and safety management system for measuring and improving the mining project's health and safety performance.	●	Sishen Mine has implemented an integrated Safety, Health, Environment and Quality management system that has been certified to the ISO 45001 international standard. Review of the Management Review records from the meeting held in early November highlights the level of implementation and senior leadership involvement in the management system. Health and Safety representatives interviewed provided examples of ongoing monitoring of health and safety metrics, and the establishment and progress towards objectives and targets. Weekly, monthly, and annual reporting of metrics show evidence of ongoing continual improvement of health and safety performance. Onsite assessment identified

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			specific instances in mine operations and processing where employee-driven job hazard assessments (JRAs) are not being completed as intended.
3.2.2.1.	The operating company shall implement an ongoing, systematic health and safety risk assessment process that follows a recognized risk assessment methodology for industrial operations.	⚠	Anglo American's Safety, Health, and Environment Way (corporate guidelines) establishes the overall risk assessment methodology. At the site level, Sishen Mine has developed an Operational Risk Management Program (ORMP) procedure that includes multiple responsibility levels of risk identification and communication. The site has implemented a thorough process for involving the use of subject matter experts, including occupational hygienists, in the determination of Job Risk Assessments (JRAs). Workers are required to review and have access to Job Risk Assessments related to their job task and complete a risk assessment to identify any additional risks presented by the conditions at the moment. Onsite interviews with workers, both full-time and contractors, identified that task-level risk assessments (SLAMs) are not being prepared as intended and that the controls identified by the workers are not specific enough to demonstrate a clear understanding of the hazard and the appropriate control.
3.2.2.2.	<p>The assessment process shall identify and assess the significance/consequence of the full range of potential hazards associated with the mining project, including those related to:</p> <ul style="list-style-type: none"> a. The design, construction and operation of the workplace, mining-related activities and processes, the physical stability of working areas, the organization of work, use of equipment and machinery, and waste and chemical management; b. All personnel, contractors, business partners, suppliers and visitors; c. Unwanted events; d. Routine and non-routine activities, products, procedures, and services; and e. Changes in duration, personnel, organization, processes, facilities, equipment, procedures, laws, standards, materials, products systems and services. 	✔	Anglo American's Safety, Health, and Environment Way (corporate guidelines) defines a risk assessment, hazards, and controls identification process to cover all the sub-requirements. The Sishen Mine Operational Risk Management Baseline incorporates a 5x5 likelihood/consequence risk analysis of the identified hazards associated with pit mining, exploration, plant, support services and other processes.
3.2.2.3.	The operating company shall pay particular attention to identifying and assessing hazards to workers who	✔	Anglo American's Safety, Health, and Environment Way Operations Specification Section includes additional controls required for vulnerable or susceptible persons.



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	may be especially susceptible or vulnerable to particular hazards.		The Sishen Baseline Workplace Risk Assessment and Control describes vulnerable groups applicable to each hazard identified. Interviews with occupational hygienists confirm that a detailed job analysis is completed when work restrictions are required.
3.2.2.4.	The operating company shall develop, implement and systematically update a risk management plan that prioritizes measures to eliminate significant hazards, and outlines additional controls to effectively minimize negative consequences and protect workers and others from remaining hazards.		According to the Safety, Health, and Environment Way corporate standard, it is expected that the site maintains and updates a risk management plan on an annual basis. In addition, the Operational Risk Management requires the development of a plan outlining the risks activities identified, resources, tasks and actions, responsibilities, and target dates for completion. Summaries of current controls have been added to the Sishen Mine Operational Risk Management Baseline Workplace Risk Assessment and Control. Bowtie Risk Assessments are conducted to identify Priority Unwanted Events, Controls and Escalation Factors. Job Risk Analysis is conducted for each job; the onsite assessment identified that these are not updated or available in all instances.
3.2.2.5.	<p>In particular, the operating company shall demonstrate that it has developed procedures and implemented measures to:</p> <ul style="list-style-type: none"> a. Ensure that the mine has electrical, mechanical and other equipment, including a communication system, to provide conditions for safe operation and a healthy working environment; b. Ensure that the mine is commissioned, operated, maintained and decommissioned in such a way that workers can perform the work assigned to them without endangering their safety and health or that of other persons; c. Maintain the stability of the ground in areas to which persons have access in the context of their work; d. If relevant, whenever practicable provide two exits from every underground workplace, each connected to separate means of egress to the surface; e. If relevant, ensure adequate ventilation for all underground workings to which access is permitted; 		Corporate standards exist requiring operational controls implementation to provide conditions for safe operation and a healthy working environment. Several examples of documented operational controls, specific to Sishen Mine, were reviewed. Health and safety communications include high-wall setback requirements and use of cones, berms, and barricades to keep workers out of high hazard areas. On-site effective systems for maintaining communications were observed, including communications regarding blasting. Sub-requirements d and e are not relevant to Sishen Mine.

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	<ul style="list-style-type: none"> f. Ensure a safe system of work and the protection of workers in zones susceptible to particular hazards; g. Prevent, detect and combat accumulations of hazardous gases and dusts, and the start and spread of fires and explosions; and h. Ensure that when there is potential high risk of harm to workers, operations are stopped and workers are evacuated to a safe location. 		
3.2.3.1.	<p>Workers shall be informed of their rights to:</p> <ul style="list-style-type: none"> a. Report accidents, dangerous occurrences and hazards to the employer and to the competent authority; b. Request and obtain, where there is cause for concern on safety and health grounds, inspections and investigations to be conducted by the employer and the competent authority; c. Know and be informed of workplace hazards that may affect their safety or health; d. Obtain information relevant to their safety or health, held by the employer or the competent authority; e. Remove themselves from any location at the mine when circumstances arise that appear, with reasonable justification, to pose a serious danger to their safety or health; and f. Collectively select safety and health representatives. 	✔	<p>The Site's reporting and investigation procedure includes requirements for all employees to report all incidents. The procedure further requires that serious events that could lead to danger to the public or the environment be reported externally to the applicable regulatory body listed in the documented procedure. A procedure and tools have been established for conducting job risk assessment (JRAs). On-site worker interviews found that all full-time and contract workers are aware of the JRA information prepared by the site and the requirement for workers to complete a 'Stop, Look, Assess, Manage (SLAM)' risk assessment before proceeding with the assigned task.</p>
3.2.3.2.	<p>In all cases a worker attempting to exercise any of the rights referred to in 3.2.3.1 in good faith shall be protected from reprisals of any sort.</p>	●	<p>Anglo American has a Group Whistleblowing Policy that applies to all of its managed operations and includes detailed provisions for Whistleblower protection. Employees and contractors can report through line managers or through the YourVoice website or 24-hour helpline. No incidents of reprisal were detected during the site visits and worker interviews.</p>
3.2.3.3.	<p>The operating company shall develop systems to effectively communicate with, and enable input from</p>	✔	<p>The site has entered into an Occupational Safety, Health, and Environment Agreement with three mine unions, including the NUM, the Solidarity Trade Union and the AMCU. The agreement establishes rights for the nomination, election and</p>

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	the workforce on matters relating to occupational health and safety.		appointment of Safety, Health, and Environment representatives by workers. On-site interviews with managers, supervisors, worker representatives and workers confirm the site is meeting this requirement.
3.2.3.4.	<p>The operating company shall develop and implement a formal process involving workers' representatives and company management to ensure effective worker consultation and participation in matters relating to occupational health and safety including:</p> <ul style="list-style-type: none"> a. Health and safety hazard identification and assessment; b. Design and implementation of workplace monitoring and worker health surveillance programs; c. Development of strategies to prevent or mitigate risks to workers through the health and safety risk assessments or workplace and workers' health surveillance; and d. Development of appropriate assistance and programs to support worker health and safety, including worker mental health. 		<p>The site has established the Operational Risk Management Program (ORMP) procedure that outlines a four-layer process for risk identification, including; 1) Baseline Workplace Risk Assessment and Control Risk (WRAC) Assessment; 2) Bowtie Analysis / WRAC Risk Assessment; 3) Job Risk Analysis; and 4) Stop, Look, Assess, and Manage (SLAM) Risk Assessment. Layers 3 and 4 specifically involve input from workers, contractors and Safety, Health, and Environment representatives. Supervisors/Forepersons are responsible for establishing the controls to be used to prevent or mitigate risks identified at the Job Risk Assessment level. Workers and contractors are responsible for conducting Stop, Look, Assess, Manage (SLAM) risk assessments to ensure that the job risk assessment still accurately captures the risks identified. While onsite interviews confirmed the program is fully established, worker-level risk assessments may not be fully implemented as intended.</p>
3.2.3.5.	<p>The operating company shall provide workers' health and safety representatives with the opportunity to:</p> <ul style="list-style-type: none"> a. Participate in inspections and investigations conducted by the employer and by the competent authority at the workplace; b. Monitor and investigate safety and health matters; c. Have recourse to advisers and independent experts; and d. Receive timely notice of accidents and dangerous occurrences. 		<p>The site has established the Incident Accident NC Corrective and Preventative Measures Procedure that includes requirements for supervisors to notify sectional Safety, Health, and Environment (SHE) representatives of all incidents and injuries without delay. The procedure also establishes the requirement for SHE Representatives to be present prior to commencing with investigations for all High-Potential Incidents, Lost Time Incidents, and reportable incidents. Additionally, Safety, Health and Environment representatives are required to conduct monthly and ad-hoc inspections in their areas of responsibility to identify conditions and behaviors that may lead to incidents and log any findings with sign-off from their supervisor. While anecdotal evidence was available, no process-based evidence was provided to demonstrate the recourse available to workers' health and safety representatives through advisers and independent experts.</p>
3.2.3.6.	Visitors and other third parties accessing the mining premises shall receive an occupational health and		The site's Access Control Standard establishes the requirement for visitors to receive occupational health and safety information through the Passport 360 program. The

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	safety briefing, and be provided with relevant protective equipment for areas of the mine site that or associated facilities that they will be entering.		standard also establishes the responsibility for a designee ("the responsible person") to accept responsibility for the safety of the visitor, including ensuring risk assessments are performed; inductions are completed; policies, standards and work instructions are complied with; and department heads are informed of the visitor access. Evidence of visitors having received an occupational health and safety briefing and access to personal protective equipment (PPE) was obtained during the on-site assessment.
3.2.4.1.	<p>Critical (a and b) The operating company shall implement measures to protect the safety and health of workers including:</p> <ul style="list-style-type: none"> a. Informing workers, in a comprehensible manner, of the hazards associated with their work, the health risks involved and relevant preventive and protective measures; b. Providing and maintaining, at no cost to workers, suitable protective equipment and clothing where exposure to adverse conditions or adequate protection against risk of accident or injury to health cannot be ensured by other means; c. Providing workers who have suffered from an injury or illness at the workplace with first aid, and, if necessary, prompt transportation from the workplace and access to appropriate medical facilities; d. Providing, at no cost to workers, training/education and retraining programs and comprehensible instructions on safety and health matters as well as on the work assigned; e. Providing adequate supervision and control on each shift; and f. If relevant, establishing a system to identify and track at any time the probable locations of all persons who are underground. 		<p>The site's Operational Risk Management Program (ORMP) establishes how workers are to be informed of the hazards, health risks and preventative and protective measures associated with their work. However, the site tour identified that job risk assessments were not updated and made available to workers in all instances.</p> <p>During the follow-up assessment, corrective actions conducted by the site were reviewed, including examples of job risk assessment task lists. Out-of-date job risk assessments have been reviewed and updated within the CWS Tracking Tool. The site has established a detailed personal protective equipment specification, procedure, and standard.</p> <p>However, respirator fit testing is currently not a part of this program, and no subsequent documentation was submitted to prove that specific training is being conducted on the fitment of respirators. While on-site, tours were conducted of the emergency response and occupational health and safety facilities available to all employees, and contracted services for advanced patient transport were confirmed. Health and safety training programs were sampled, and adequate supervision of workers was observed during the site tours.</p>
3.2.4.2.	If the risk assessment process reveals unique occupational health and safety risks for certain groups of workers (e.g., pregnant women, children,		The site's Baseline Risk Assessment describes the impact on identified vulnerable groups for each of the hazards/risk sources listed. Controls listed with each of the risks also include considerations for the vulnerable groups identified. Interviews

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	HIV-positive, etc.) the operating company shall ensure that additional protective measures are taken, and trainings and health promotion programs are available to support the health and safety of those workers.		with occupational hygiene staff at the medical facility and sampling of programs confirmed the site's assessment, accommodation (where practical) and job task reassessment practices for vulnerable workers.
3.2.4.3.	The operating company shall provide workers with clean toilet, washing and locker facilities (commensurate with the number and gender of staff employed), potable drinking water, and where applicable, sanitary facilities for food storage and preparation. Any accommodations provided by the operating company shall be clean, safe, and meet the basic needs of the workers.	☑	The Sishen Mine COVID-19 Workplace Operating Procedure includes guidelines on frequency and methods of cleaning and disinfection of workplaces, including general toilets, shift change toilets, change houses and rooms, and patient bathrooms. Site tours and sampling of facilities confirmed conformance to these requirements.
3.2.4.4.	<p>The operating company shall ensure that workers are provided with compensation for work-related injuries and illnesses as follows:</p> <ul style="list-style-type: none"> a. In countries where workers' compensation is not provided through government schemes or a collective bargaining agreement: <ul style="list-style-type: none"> i. The operating company shall compensate workers for work-related injuries or illnesses at a rate that, at minimum, covers medical expenses and wages during the recovery and rehabilitation period; ii. If a worker is not able to return to work due to the severity of the work-related injury or illness, the operating company shall compensate for lost earnings until the worker qualifies for an adequate pension (i.e., 2/3 or more of the salary they would otherwise normally receive if healthy and working); or iii. [flag] If an occupational illness manifests after a worker has retired, the operating company or its corporate owner shall, at minimum, compensate the worker for medical expenses, unless the operating company or its corporate owner can establish that the occupational illness was not 	☑	The Compensation for Occupational Injuries and Diseases Act, 1993 establishes the requirements for compensation for disablement caused by occupational injuries or diseases sustained or contracted by employees in the course of their employment, or for death resulting from such injuries or diseases. The site's Employee Handbook defines sick leave entitlement as 30 working days paid sick leave per 3-year sick leave cycle, accruing at the rate of 0.833 days per month. The handbook also includes provisions for employee death and disability compensation and funeral coverage that exceed the requirements of this standard. Compensation is provided through the site's insurance provider. Records were reviewed showing approval and payout of previous claims. Medical staff were interviewed to confirm the claims process.

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	<p>connected to the worker's employment at the mining project.</p> <p>b. In countries that do not provide for worker rehabilitation as part of their workers' compensation schemes, the operating company shall ensure that workers have free or affordable access to rehabilitation programs to facilitate an expeditious return to work; and</p> <p>c. Where a worker dies as a result of a work-related injury or disease, the operating company shall, at minimum, provide to spouses and dependent children benefits to cover funeral expenses and transportation of the worker's body, if appropriate, as well as compensation that is equal to or greater than three months' salary of the deceased worker.</p>		
3.2.5.1.	<p>The operating company and workers' representatives on a joint health and safety committee, or its equivalent, shall perform regular inspections of the working environment to identify the various hazards to which the workers may be exposed, and to evaluate the effectiveness of occupational health and safety controls and protective measures.</p>		<p>Both the Occupational Safety, Health, and Environment (SHE) Unions Agreement and the Operational Risk Management Plan procedure outline the framework and responsibilities for conducting inspections of the working environment, including the role of SHE representatives. Weekly performance reports show the number of targeting and actual critical control monitoring and validation. On-site interviews with SHE representatives and sampled evidence support the regular completion of this monitoring and validation.</p>
3.2.5.2.	<p>The operating company shall carry out workplace monitoring and worker health surveillance to measure exposures and evaluate the effectiveness of controls as follows:</p> <p>a. Workplace monitoring and worker health surveillance shall be designed and conducted by certified industrial hygienists or other competent professionals;</p> <p>b. Health surveillance shall be carried out in a manner that protects the right to confidentiality of medical information, and is not used in a manner prejudicial to workers' interests;</p> <p>c. Samples collected for workplace monitoring and health surveillance purposes shall be analyzed in an</p>		<p>The site actively monitors worker health using certified occupational hygienists. Monitoring and medical surveillance includes hearing loss, vision, chest x-rays, vitals, physical capacity, drug, and alcohol monitoring. Occupational hygienists also conduct monitoring and measurement of task-based hazards, including noise, dust, lifting and ergonomics. Employee medical data is stored in a third-party online database program and access is strictly controlled by individual login credentials. Reviewed the SHE Forum One September 2021 (11-OCT-21) presentation. However, the section on occupational hygiene appears to have equipment data relating to engineering and operations. Evidence was not provided to show that samples were analyzed in an ISO/IEC 17025 certified or nationally accredited laboratory. No evidence of occupational exposure limits/biological exposure indices (OEL/BEI) exceedances were identified during the assessment; however, the process was discussed and confirmed with site occupational hygienists.</p>

Requirement #	Requirement Text	Rating	Basis for rating
	<p>ISO/IEC 17025 certified or nationally accredited laboratory;</p> <p>d. Sample results shall be compared against national occupational exposure limits (OELs) and/or biological exposure indices (BEIs), if they exist, or OELs/BEIs developed by the American Conference of Governmental Industrial Hygienists (ACGIH); and</p> <p>e. If an OEL/BEI is exceeded, the affected worker(s) shall be informed immediately, and controls shall be reviewed and revised in a timely manner to ensure that future exposure levels remain within safe limits.</p>		
3.2.5.3.	<p>Controls, protective measures, health risk assessments, risk management plans, and training and educational materials shall be updated as necessary based on inspection and monitoring results.</p>	☑	<p>The site's Operational Risk Management Program (ORMP) establishes how health and safety risks and controls are to be identified, evaluated, and determined. The site tour identified that job risk assessments were not updated and made available to workers in all instances.</p> <p>During the follow-up assessment, the Mine demonstrated that out-of-date risk assessments have been updated and a tracking tool has been instated to ensure other risk assessments are monitored and updated.</p>
3.2.5.4.	<p>The operating company shall ensure that all workplace injuries, fatalities, accidents and dangerous occurrences, as defined by national laws or regulations, are documented, reported to the competent authority, investigated and that appropriate remedial action is taken.</p>	☑	<p>Review of the site's High-Potential Incidents, Lost Time Incidents registers shows 5 Lost Time Incident events and 2 HPI events along with their report number for 2021. The site also maintains an injury register, listing the reported injuries by month sustained by employees and contractors during 2021. Additional evidence reviewed included letters to the Department of Minerals Resources reporting safety incidents. No evidence or worker discussions of incidents going unreported were identified during the on-site assessment.</p>
3.2.6.1.	<p>The operating company shall maintain accurate records of health and safety risk assessments; workplace monitoring and workers' health surveillance results; and data related to occupational injuries, diseases, accidents, fatalities and dangerous occurrences collected by the company and submitted to competent authorities. This information, except for data protected for medical confidentiality reasons, shall be available to workers' health and safety representatives.</p>	☑	<p>The Occupational Safety, Health, and Environment (SHE) Unions Agreement includes the requirement for the mine to supply the following information to SHE committees and trade unions: Mine's Annual Report on Health and Safety (Section 2(1) of the Act), Annual Medical Report (Section 16 of the Act), statistics on all reportable accidents and occupational diseases among employees at the mine, and statistics on claims for compensation for occupational injuries and diseases. Interviews with staff and the Occupational Health Facility confirmed that workers have access to their medical information, and that results are explained to workers during the time of assessment. Information can be made available to site</p>

Requirement #	Requirement Text	Rating	Basis for rating
			management, but only once a disclosure agreement has been signed by the worker.
3.2.6.2.	The operating company shall establish a data management system that enables worker health data to be readily located and retrieved, and data protected by medical confidentiality to be securely stored. Data shall be retained for a minimum of 30 years, and responsible custodians shall be assigned to oversee the health data management system.	✔	A tour of the Occupational Health Center (OHC) and interviews with staff identified that worker health records are being stored in compliance with the requirements of this standard.
3.2.6.3.	The operating company shall allow workers access to their personal information regarding accidents, dangerous occurrences, inspections, investigations and remedial actions, health surveillance and medical examinations.	✔	The union agreement includes privacy protection for medical records. The site must also receive authorization from workers to access their health information. Health information is shared with workers during their consultations with Occupational Health Center staff. No evidence of information being withheld from workers was uncovered during worker interviews during the on-site assessment.
Chapter 3.3—Community Health and Safety			
3.3.1.1.	<p>Critical The operating company shall carry out a scoping exercise to identify significant potential risks and impacts to community health and safety from mining-related activities. At minimum, the following sources of potential risks and impacts to community health and/or safety shall be considered:</p> <ul style="list-style-type: none"> a. General mining operations; b. Operation of mine-related equipment or vehicles on public roads; c. Operational accidents; d. Failure of structural elements such as tailings dams, impoundments, waste rock dumps (see also IRMA Chapter 4.1); e. Mining-related impacts on priority ecosystem services (see also IRMA Chapter 4.6); 	⊘	Documents such as the baseline Workplace Risk Assessment and Control identify sources of risks and impacts associated with sources listed in "a" through "i" of this requirement. The site is in the process of improving the identification of risks and impacts to the community through a scoping research project. However, the on-site assessment found limited evidence of the assessment of mining-related impacts on priority ecosystem services, in particular the impact of dewatering in the Kathu Forest.

Requirement #	Requirement Text	Rating	Basis for rating
	<ul style="list-style-type: none"> f. Mining-related effects on community demographics, including in-migration of mine workers and others; g. Mining-related impacts on availability of services; h. Hazardous materials and substances that may be released as a result of mining-related activities (see also IRMA Chapter 4.1); and i. Increased prevalence of water-borne, water-based, water-related, and vector-borne diseases, and communicable and sexually transmitted diseases (e.g., HIV/AIDs, tuberculosis, malaria, Ebola virus disease) that could occur as a result of the mining project. 		
3.3.1.2.	Scoping shall include an examination of risks and impacts that may occur throughout the mine lifecycle (e.g., construction, operation, reclamation, mine closure and post-closure).	✔	The site's Social and Human Rights Impact and Risk Analysis Baseline Workplace Risk Assessment and Control includes community risks and impacts from various mining processes and activities, including impact to employment nearing mine closure. The site is currently undergoing a community health and safety scoping study, and assessment of community health and safety risks and impacts will follow as part of the scoping process.
3.3.1.3.	Scoping shall include consideration of the differential impacts of mining activities on vulnerable groups or susceptible members of affected communities.	✔	Corporate policies and guidance require the site to understand potential impacts on the community and manage community health and safety. The Social and Human Rights Impact and Risk Analysis and baseline Workplace Risk Assessment and Control evaluates the risks and impacts on vulnerable workers and communities. The site will be further enhancing its understanding of its impact on vulnerable groups through a scoping research project currently underway.
3.3.2.1.	<p>The operating company shall carry out an assessment of risks and impacts to:</p> <ul style="list-style-type: none"> a. Predict the nature, magnitude, extent and duration of the potential risks and impacts identified during scoping; b. Evaluate the significance of each impact, to determine whether it is acceptable, requires mitigation, or is unacceptable. 	✔	The site's social and human rights impact and risk assessment baseline Workplace Risk Analysis and Control includes community risks and impacts and evaluates their magnitude and likelihood. The significance of each risk and impact to the community is also determined on an overall basis and specifically by vulnerability and remediability. The on-site assessment reviewed and confirmed the appropriateness of the scale and magnitude of a sampling of the risks and impacts identified.




Requirement #	Requirement Text	Rating	Basis for rating
3.3.3.1.	<p>The operating company shall document and implement a community health and safety risk management plan that includes:</p> <ul style="list-style-type: none"> a. Actions to be taken to mitigate the significant risks and impacts identified during its risk and impact assessment; and b. Monitoring that will be conducted to ensure that measures to prevent or mitigate impacts remain effective. 	✔	<p>The site's Social and Human Rights Impact and Risk Analysis baseline Workplace Risk Assessment and Control includes community risks and impacts and a list of current controls applicable to each source. The Emergency Preparedness and Response Plan, section 5.30, covers Management of Emergencies in Communities. The on-site assessment confirmed the implementation of community health and safety controls and their associated monitoring activities (e.g., borehole monitoring around neighboring farms to monitor impacts of dewatering and vibration monitoring for community impacts of blasting).</p>
3.3.3.2.	<p>Mitigation measures shall prioritize the avoidance of risks and impacts over minimization and compensation.</p>	⊕	<p>The Social and Human Rights Impact and Risk Analysis baseline Workplace Risk Assessment and Control identifies mitigation measures and controls associated with each of the community health and safety risks and impacts. Bowtie risk diagrams were sampled, showing that the site has evaluated both the avoidance and mitigation measures associated with the risks evaluated (e.g., diesel emissions and COVID-19). For risks related to the recent pit expansion project, measures involving relocation and compensation were prioritized.</p>
3.3.3.3.	<p>The community health and safety risk management plan shall be updated, as necessary, based on the results of risk and impact monitoring.</p>	⊕	<p>The site has established a 5-year Social Management Plan (SMP) that is required to be updated every five years as a result of a review or update of the baseline and context analysis, or more frequently as a result of significant changes in the Life of Asset Plan, or internal or external context. The SMP is based on the outcomes of the Social and Human Rights Impact and Risk Analysis, which are also incorporated into the site's operational risk management baseline Workplace Risk Assessment and Control. The Social Management Plan provides high-level action planning information with respect to community health and safety. The site is currently in the process of developing a specific Community Health and Safety Risk Management Plan. Evidence was provided that an external service provider has been retained to assist the site in completing this work.</p>
3.3.4.1.	<p>If the operating company's risk and impact assessment or other information indicates that there is a significant risk of community exposure to HIV/AIDS, tuberculosis, malaria or another emerging infectious disease related to mining activities, the operating company shall develop, adopt and</p>	⊕	<p>The baseline Workplace Risk Assessment and Controls identify COVID-19 as an example of a disease outbreak. Further evidence presented shows that the site is engaged with the regional department of health, together with other mines. The on-site assessment at the mine and community health and safety clinic identified examples of communication of site-provided health programs related to HIV/AIDS and other infectious diseases.</p>

Requirement #	Requirement Text	Rating	Basis for rating
	<p>implement policies, business practices, and targeted initiatives:</p> <ul style="list-style-type: none"> a. In partnership with public health agencies, workers' organizations and other relevant stakeholders, create and fund initiatives to educate affected and vulnerable communities about these infections and modes of prevention of them, commensurate with the risks posed by mining; b. Operate in an open and transparent manner and be willing to share best practice for the prevention and treatment of these diseases with workers' organizations (e.g., trade unions), other companies, civil society organizations and policymakers; and c. Make information publicly available on its infectious disease mitigation program. 		
3.3.4.2.	<p>If the assessment demonstrates a significant risk of community exposure to HIV/AIDS, tuberculosis or malaria from mining-related activities, the following prevention and mitigation strategies shall be applied, as appropriate:</p> <ul style="list-style-type: none"> a. In relation to HIV/AIDS, the operating company shall, at minimum: <ul style="list-style-type: none"> i. Provide free, voluntary and confidential HIV testing and counseling for all mine workers and employees; ii. Provide HIV/AIDS treatment for workers and employees where it cannot reasonably be assumed that this will be provided in an effective manner by public or private insurance schemes at an affordable rate; iii. Provide access for contractors to education and other preventative programs, and to work with the operating company's or facility's contracting companies or others to identify ways for contract workers to access affordable treatment; and iv. Work with public health authorities, communities, workers' organizations and other stakeholders towards ensuring universal access to treatment 	⊗	<p>Review of the site's HIV, TB and STI Policy identified the site's commitments to resource provision, information, counseling, and treatment for employees. During the on-site assessment, evidence of the provision of free, voluntary, and confidential HIV testing and counselling for all employees was identified. However, evidence was not available to show that risk assessments have been completed demonstrating the understanding of the level of significance of community exposure to HIV/AIDS, tuberculosis, and malaria from mining.</p>

Requirement #	Requirement Text	Rating	Basis for rating
	<p>for dependents of mine workers/employees and affected community members.</p> <p>b. In relation to tuberculosis, the operating company shall, at minimum, provide free and voluntary testing for mine workers/employees where it is not reasonably likely to be provided by public or private health programs at an affordable rate.</p> <p>c. In relation to malaria, the operating company shall, at minimum:</p> <ul style="list-style-type: none"> i. Develop a vector control plan; ii. Ensure that company facilities are not breeding environments for malaria-carrying mosquitoes; and iii. Provide protection from infection by malaria-carrying mosquitoes in company facilities and any company-provided housing. 		
3.3.5.1.	<p>The operating company shall collaborate with relevant community members and stakeholders, including workers who live in affected communities and individuals or representatives of vulnerable groups, in:</p> <ul style="list-style-type: none"> a. Scoping of community health and safety risks and impacts related to mining; b. Assessment of significant community health and safety risks and impacts related to mining; c. Development of prevention or mitigation strategies; d. Collection of any data needed to inform the health risk and impact assessment process; and e. Design and implementation of community health and safety monitoring programs. 	⊕	<p>Sishen Mine has held meetings and participatory events with some community members, including those community members who attended the Stakeholder Day event in September 2021. The site is currently engaged in a community health and safety scoping exercise. Further evidence is needed to show how the site collaborates with community members, including workers in affected communities, and representatives of vulnerable groups and their input that has directly contributed to the scoping, assessment and mitigation of community health and safety risks and impacts related to mining.</p>
3.3.6.1.	<p>The operating company shall make information on community health and safety risks and impacts and monitoring results publicly available.</p>	☑	<p>Sishen Mine recently conducted a Stakeholder Engagement Day event and presented the negative social impacts based on the 2020 baseline. The presentation also included discussion of the emergency preparedness and response planning,</p>

Requirement #	Requirement Text	Rating	Basis for rating
			with discussion around fires, chemical spills, motor vehicle accidents, civic unrest, and infectious disease.
Chapter 3.4—Mining and Conflict-Affected or High-Risk Areas			
	Chapter not assessed	—	IRMA did not score this chapter in 2022, just collecting information to help inform future guidance on chapter implementation.
Chapter 3.5—Security Arrangements			
3.5.1.1.	The operating company shall adopt and make public a policy acknowledging a commitment to respect human rights in its efforts to maintain the safety and security of its mining project; and a commitment that it will not provide support to public or private security forces that have been credibly implicated in the infringement of human rights, breaches of international humanitarian law or the excessive use of force.	✓	<p>The Social Way Policy 3.0 notes that Anglo American respects human rights and supports the UN Guiding Principles on Business and Human Rights (UNGPs) and applies the Voluntary Principles on Security and Human Rights (VPSHRs).</p> <p>The mine demonstrates a commitment to not supporting security providers that have been implicated of human rights infringements through an annual due diligence assessment of security providers and personnel.</p> <p>The Anglo American SW 3.0 Policy and SW Toolkits are publicly available.</p>
3.5.1.2.	<p>Critical The operating company shall have a policy and procedures in place regarding the use of force and firearms that align with the best practices expressed in UN Basic Principles on the Use of Force and Firearms. At minimum, the company's procedures shall require that:</p> <ol style="list-style-type: none"> Security personnel take all reasonable steps to exercise restraint and utilize non-violent means before resorting to the use of force; If force is used it shall not exceed what is strictly necessary, and shall be proportionate to the threat and appropriate to the situation; and 	✓	<p>The Group Security Policy speaks to the use of force and firearms. The policy meets requirements a, b and c.</p> <p>The policy provides reference to the Voluntary Principles on Security and Human Rights Policy (VPSHR) when making an arrest. On-site security is not armed.</p> <p>During interviews, it was reported that all security staff receive the Voluntary Principles on Security and Human Rights Policy (VPSHR) training as part of onboarding, and annual refreshers are provided.</p>

Requirement #	Requirement Text	Rating	Basis for rating
	c. Firearms shall only be used for the purpose of self-defense or the defense of others if there is an imminent threat of death or serious injury.		
3.5.1.3.	<p>If private security is used in relation to the mining project, the operating company shall have a signed contract with private security providers that at minimum:</p> <ul style="list-style-type: none"> a. Sets out agreed on principles that are consistent with the Voluntary Principles on Security and Human Rights and the operating company's procedures on the use of force and firearms; b. Delineates respective duties and obligations with respect to the provision of security in and around the mining project and, if relevant, along transport routes; and c. Outlines required training for security personnel. 	✔	<p>The site uses the private security company Vusela. ERM reviewed a signed contract between the mine and Vusela. The Vusela Voluntary Principles on Security and Human Rights (VPSHR) Agreement is an addendum to a contract with the services provider in regard to the VPHRS.</p> <p>Appendix C_VOLUNTARY PRINCIPLES SERVICE PROVIDER.PDF (1).pdf provides the requirements a - c.</p> <p>The specific training requirements are determined by the mine and communicated to the security provider.</p>
3.5.1.4.	If public security forces are used to provide security to the mining project and/or transport routes, the operating company shall make a good faith effort to sign a Memorandum of Understanding (MoU) or similar agreement with public security providers that includes similar provisions to those in 3.5.1.3.	—	South African Police Service are not used to provide security to the Mine. South African Police Service are called to help maintain law and order outside the Mine, or investigate matters pertaining to a breach of law.
3.5.2.1.	The operating company shall assess security risks and potential human rights impacts that may arise from security arrangements. Assessments of security-related risks and impacts shall be updated periodically, including, at minimum, when there are significant changes in mining-related activities, security arrangements, or in the operating environment.	✔	<p>Evidence demonstrates that the site has considered risks and potential impacts on human rights from security arrangements. The internal Voluntary Principles Risk Assessment of Security is noted to have last been updated in 2021, and it was reported that this is updated annually.</p> <p>It was reported that there is a refocus on protection services, and that the mine has appointed an external consultant to update this.</p> <p>Appendix C_VOLUNTARY PRINCIPLES SERVICE PROVIDER.PDF (1).pdf shows a risk-based approach to security and assessment of risk.</p>

Requirement #	Requirement Text	Rating	Basis for rating
3.5.2.2.	<p>Assessments, which may be scaled to the size of the company and severity of security risks and potential human rights impacts, shall:</p> <ul style="list-style-type: none"> a. Follow a credible process/methodology; b. Be carried out and documented by competent professionals; and c. Draw on credible information obtained from a range of perspectives, including men, women, children (or their representatives) and other vulnerable groups, relevant stakeholders and expert advice. 		<p>The Anglo American Voluntary Principles on Security and Human Rights Kumba Iron Ore VPSHR_KIO v0.2 contains a credible methodology and was carried out by an established, global sustainability consultancy.</p> <p>The Kumba Iron Ore – Voluntary Principles on Security and Human Rights - Risk Register and POA was developed and updated by KIO Group Security Strategy. The risk identification and assessment follow a credible methodology and was reportedly carried out by security and risk management professionals at the mine.</p> <p>It was reported that corporate affairs have been consulted and inputted into risk management to get an understanding of risks to vulnerable groups. Engagement with South African Police Service was also part of the process. ERM did receive evidence to demonstrate this.</p>
3.5.2.3.	<p>The scope of the security risk assessment shall include, but need not be limited to:</p> <ul style="list-style-type: none"> a. Identification of security risks to the company, workers and communities, paying particular attention to risks to women, children and other vulnerable groups; b. Analysis of the political and security context in the host country context (e.g., the human rights records of the government and public and private security forces; adherence to the rule of law; corruption); c. Analysis of current and potential conflicts or violence in the host country and affected communities; and d. Risks associated with equipment transfers. 		<p>Evidence demonstrates that the Sishen assessments are comprehensive and meet sub-requirements a to d. Specific risks in Siyathemba were considered through inputs during a workshop.</p>
3.5.2.4.	<p>The operating company shall develop and implement a risk management plan that includes actions to be taken to prevent or mitigate identified risks, and monitoring that will be conducted to ensure that mitigation measures are effective.</p>		<p>At the time of the audit, Sishen is in the process of putting together a security program with external consultants. Terms of Reference with an external company is in place to develop the action plan based on the outcomes of the risk management system. A security management system is being developed and will be rolled out in 2022.</p> <p>The consultants will work with the Sishen social performance team to ID and manage security risk. They are working with social performance to ensure security is considered in different projects.</p>

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3.5.2.5.	If the security risk assessment reveals the potential for conflicts between mine security providers and affected community members or workers, then the operating company shall collaborate with communities and/or workers to develop mitigation strategies that are culturally appropriate and that take into consideration the needs of women, children and other vulnerable groups. If specific risks to human rights are identified in the assessment, the mitigation strategies shall conform with requirements in IRMA Chapter 1.3.		At the time of the Audit, Sishen is in the process of putting together a security program with external consultants. Terms of reference with an external company is in place to develop the action plan based on the outcomes of the risk management system. A security management system is being developed and will be rolled out in 2022.
3.5.3.1.	The operating company shall develop and implement due diligence procedures to prevent the hiring of company security personnel and private security providers who have been convicted of or credibly implicated in the infringement of human rights, breaches of international humanitarian law or the use of excessive force.		Evidence presented demonstrates that the site undertakes a due diligence screening process before contacting security services.
3.5.3.2.	The operating company shall make a good faith effort to determine if public security personnel providing security to the mine have been convicted of or credibly implicated in the infringement of human rights, breaches of international humanitarian law or the use of excessive force.	—	South African Police Service are not used to provide security to the Mine. South African Police Service are called to help maintain law and order outside the Mine, or investigate matters pertaining to a breach of law.
3.5.4.1.	Prior to deployment of company or private security personnel, the operating company shall provide training that incorporates, at minimum, information related to ethical conduct and respect for the human rights of mine workers and affected communities, with particular reference to vulnerable groups, and the company's policy on the appropriate use of force and firearms. Initial training and refresher courses shall be mandatory for all operating company personnel involved in security, and for private security		<p>Evidence presented shows that training is required for relevant employees and has been provided to security personnel.</p> <p>Training is provided by external service providers and the scope must include the Anglo American requirements. Evidence shared shows the course content is consistent with the requirements of this chapter.</p> <p>Training is provided annually. In-person training and online training are provided as refreshers. Refreshers also take place annually and are linked to Passport 360.</p> <p>Evidence includes screenshots of the Passport 360.</p>

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	contractors that have not received equivalent training from their employers.		This has only been once a year, but going forward the Voluntary Principles on Security and Human Rights will be included in the onboarding.
3.5.4.2.	If public security forces are to be used, the operating company shall determine if public security personnel are provided with training on human rights and the appropriate use of force and firearms. If this training is not occurring, the company shall offer to facilitate training for public security personnel that provide mine-related security.	—	South African Police Service are not used to provide security to the Mine. South African Police Service are called to help maintain law and order outside the Mine, or investigate matters pertaining to a breach of law.
3.5.5.1.	<p>The operating company shall:</p> <ul style="list-style-type: none"> a. Develop and implement systems for documenting and investigating security incidents, including those involving impacts on human rights or the use of force; b. Take appropriate actions, including disciplinary measures, to prevent and deter abusive or unlawful acts by security personnel and acts that contravene the company's policies on rules of engagement, the use of force and firearms, human rights, and other relevant policies; c. Take appropriate actions to mitigate and provide remediation for human rights impacts (as per IRMA Chapter 1.3), injuries or fatalities caused by security providers; d. Report security incidents, including any credible allegations of human rights abuses by private or public security providers, to the competent authorities and national human rights institutions, and cooperate in any investigations or proceedings; e. Provide medical assistance to all injured persons, including offenders; and f. Ensure the safety of victims and those filing security-related allegations. 	☑	It was reported that security related incidences are reported through the operational level grievance mechanism. If an incident is reported concerning security forces, the security team are involved in investigating the incident and work closely with the social performance team in grievance redress. It was reported that the mine would offer medical assistance if required.

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3.5.5.2.	In the event of security-related incidents that result in injuries, fatalities or alleged human rights impacts on community members or workers, the company shall provide communities and/or workers with information on the incidents and any investigations that are underway, and shall consult with communities and/or workers to develop strategies to prevent the recurrence of similar incidents.	—	No such complaints have been received.
3.5.6.1.	If requested by a representative community structure, the operating company shall offer a briefing for community stakeholders on the company's procedures on the use of force and firearms.	☑	No such requests have been made, but the site does give feedback pertaining to security at regular stakeholder engagement events.
3.5.6.2.	The operating company shall consult regularly with stakeholders, including host governments and affected communities, about the impact of their security arrangements on those communities; and shall report to stakeholders annually on the company's security arrangements and its efforts to manage security in a manner that respects human rights.	☑	Evidence presented shows that the mine has engaged with local government and security providers around security matters. The mine has engaged frequently with South African Police Service and has been participating in the annual stakeholder day to give feedback.
3.5.6.3.	Stakeholders shall have access to and be informed about a mechanism to raise and seek recourse for concerns or grievances related to mine security.	☑	The mine grievance mechanism can be used for this. All processes are followed.
3.5.6.4.	If public security forces are providing security for any aspect of the mining project, the operating company shall encourage host governments to permit making security arrangements, such as the purpose and nature of public security, transparent and accessible to the public, subject to any overriding safety and security concerns.	—	South African Police Service are not used to provide security to the Mine. South African Police Service are called to help maintain law and order outside the Mine, or investigate matters pertaining to a breach of law.

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Chapter 3.6—Artisanal and Small-Scale Mining			
	Chapter Not Relevant	—	There are no artisanal or small-scale mining (ASM) operations in close proximity to the mining project and the mining project is not engaged in commercial relationship with (e.g., sourcing minerals from) any ASM entities regardless of their proximity to the mining project.
Chapter 3.7—Cultural Heritage			
3.7.1.1.	Screening, assessment and the development and implementation of mitigation measures and procedures related to the management of cultural heritage shall be carried out by competent professionals.	☑	The Heritage Management Procedure was reviewed. The updated Cultural Heritage Management Plan (CHMP) (October 2021) was provided and prepared by a competent professional archeologist (Resume provided).
3.7.1.2.	Screening, assessment and the development of mitigation measures and procedures related to the management of cultural heritage shall include consultations with relevant stakeholders.	⦿	Meetings with Korana First Nation (2020) and a Sishen West Expansion Project public meeting (2021) included discussion of the cultural heritage study. The updated Cultural Heritage Management Plan (CHMP) (October 2021) compiles all heritage studies undertaken to date. Attendance records and correspondence with stakeholders were provided for review.
3.7.1.3.	Cultural heritage assessments, management plans and procedures shall be made available upon request to community stakeholders and other stakeholders who have been engaged with the mine site on cultural heritage issues.	⦿	The Sishen West Expansion Project public meeting presentation confirms heritage studies were included in the presentation. Meeting minutes, attendance records and related sample correspondence were provided. The Cultural Heritage Management Plan and other related documentation were available to registered participants on request or through the online site.
3.7.2.1.	Prior to the development of a new mine, or when there are significant changes to mining-related	☑	The Cultural Heritage Management Plan (2021) indicates a screening process is undertaken. Presentation, minutes, and attendance records indicate cultural

Requirement #	Requirement Text	Rating	Basis for rating
	activities, the operating company shall undertake a screening process to identify risks and potential impacts to replicable, non-replicable and critical cultural heritage from the proposed mining-related activities.		heritage was discussed with stakeholders and potential critical cultural heritage was identified.
3.7.2.2.	If the screening indicates the potential for replicable, non-replicable or critical cultural heritage to be encountered during mining-related activities, the operating company shall assess the nature and scale of the potential impacts and propose mitigation measures to avoid, minimize, restore or compensate for adverse impacts. Mitigation measures shall be consistent with the requirements below (see criteria 3.7.3, 3.7.4, 3.7.5 and 3.7.6), based on the type of cultural heritage likely to be affected.	●	The Cultural Heritage Management Plan identifies a church and gravesite as critical non-replicable heritage sites. Approved mitigation was undertaken in consultation with stakeholders and included replacement of the church and relocation of the expanded gravesite area outside of mine area. Interviews with affected stakeholders indicated dissatisfaction with the consultation process and the mitigation implemented.
3.7.3.1.	<p>When tangible replicable cultural heritage that is not critical is encountered during mining-related activities the operating company shall apply mitigation measures that favor avoidance. Where avoidance is not feasible, the following mitigation hierarchy shall apply:</p> <ol style="list-style-type: none"> a. Minimize adverse impacts and implement restoration measures, in situ, that ensure maintenance of the value and functionality of the cultural heritage, including maintaining or restoring any ecosystem processes needed to support it; b. Where restoration in situ is not possible, restore the functionality of the cultural heritage, in a different location, including the ecosystem processes needed to support it; c. Where restoring the functionality of the cultural heritage in a different location is not feasible, permanently remove historical and archeological artifacts and structures; and d. Where affected communities are using the tangible cultural heritage for long-standing cultural 	●	The Cultural Heritage Management Plan (2021) indicates a hierarchy that focuses on avoidance, minimizing impacts, etc. The Cultural Heritage Management Plan maps heritage resources of significance and applies “No-Go” areas where needed. For new areas, a survey is conducted prior to development. The Dingleton Demolition Environmental Management Plan report was provided. Interviews with affected stakeholders indicated dissatisfaction with the consultation process and the mitigation implemented.

Requirement #	Requirement Text	Rating	Basis for rating
	purposes compensate for loss of that tangible cultural heritage.		
3.7.3.2.	All mitigation work involving tangible replicable cultural heritage shall be carried out and documented by competent professionals, using internationally recognized practices for the protection of cultural heritage.	✔	A CV of the competent professional archaeologist was provided. The methodology of the Cultural Heritage Management Plan uses internationally recognized practices. The Cultural Heritage Management Plan documents specific mitigation measures taken to avoid or minimize cultural heritage impacts.
3.7.4.1.	The operating company shall not remove any tangible nonreplicable cultural heritage, unless all of the following conditions are met: <ul style="list-style-type: none"> a. The overall benefits of the mining project conclusively outweigh the anticipated cultural heritage loss from removal; and b. Any removal of cultural heritage is conducted using the best available technique. 	⊕	The Cultural Heritage Management Plan (2021) consolidates cultural heritage work and studies undertaken. The Cultural Heritage Management Plan was presented to relevant stakeholders. Further evidence may assist in determining how affected stakeholders responded to cultural heritage mitigations in relation to overall mine-related benefits.
3.7.4.2.	All mitigation work involving tangible non-replicable cultural heritage shall be carried out and documented by competent professionals, using internationally recognized practices for the protection of cultural heritage.	✔	The qualifications of the lead professional archaeologist involved in the development and implementation of the updated Cultural Heritage Management Plan (2021) were provided. The methodology of Cultural Heritage Management Plan uses internationally recognized practices. The Cultural Heritage Management Plan consolidates previously undertaken cultural work and studies and details specific mitigations undertaken to address potential impacts on tangible non-replicable cultural heritage.
3.7.5.1.	Except under exceptional circumstances, the operating company shall not remove, significantly alter, or damage critical cultural heritage. In exceptional circumstances when impacts on critical cultural heritage are unavoidable, the operating company shall: <ul style="list-style-type: none"> a. Retain external experts to assist in the assessment and protection of critical cultural heritage, and use internationally recognized practices for the protection of cultural heritage; and 	⊖	The updated Cultural Heritage Management Plan indicates two sites (a church and gravesite) were identified as critical cultural resources. Relevant stakeholders were consulted. The church was replaced, and the gravesite was relocated and expanded under the supervision of a qualified professional archaeologist. Further evidence of the process of collaboration and negotiation with stakeholders is required to confirm mutually acceptable outcomes.

Requirement #	Requirement Text	Rating	Basis for rating
	<p>b. Collaborate with affected communities to negotiate measures to protect critical cultural heritage and provide equitable outcomes for affected communities, and document the mutually accepted negotiation process and outcomes. (Note: Where impacts may occur to indigenous peoples' critical cultural heritage, negotiation shall take place through the Free, Prior and Informed Consent process outlined in IRMA Chapter 2.2 unless otherwise specified by the indigenous peoples).</p>		
3.7.5.2.	<p>When a new mine is proposed within a legally protected cultural heritage area, including areas proposed by host governments for such designation, or a legally defined protected area buffer zone, the operating company shall:</p> <ol style="list-style-type: none"> a. Comply with the requirement 3.7.5.1; b. Comply with the protected area's management plan; c. Consult with agencies or bodies responsible for protected area governance and management, local communities and other key stakeholders on the proposed mining project; and d. Implement additional programs, as appropriate, to promote and enhance the conservation aims of the protected area. 	—	Site is not a new mine.
3.7.5.3.	<p>IRMA will not certify new mines that are developed in or that adversely affect the following protected areas if those areas were designated to protect cultural values (See also Chapter 4.6).</p> <ul style="list-style-type: none"> • World Heritage Sites, and areas on a State Party's official Tentative List for World Heritage Site Inscription; • International Union for Conservation of Nature (IUCN) protected area management categories I-III; • Core areas of UNESCO biosphere reserves. 	—	Site is not a new mine.

Requirement #	Requirement Text	Rating	Basis for rating
3.7.5.4.	<p>An existing mine located entirely or partially in a protected area listed in 3.7.5.3 shall demonstrate that:</p> <ul style="list-style-type: none"> a. The mine was developed prior to the area's official designation; b. Management plans have been developed and are being implemented to ensure that activities during the remaining mine lifecycle will not permanently and materially damage the integrity of the cultural values for which the area was designated or recognized; and c. The operating company collaborates with relevant management authorities to integrate the mine's management strategies into the protected area's management plan. 	—	Evidence does not indicate the mine is a cultural heritage protected area. Evidence provided indicates there may be protected species and sensitive habitat within the mine area.
3.7.5.5.	To safeguard irreplaceable cultural heritage and respect indigenous peoples' right to self-determination, the operating company shall not carry out new exploration or develop new mines in areas where indigenous peoples are known to live in voluntary isolation.	—	The Korana First Nation have self-identified as an Indigenous group. The site has engaged with Korana First Nation representatives. Evidence provided does not indicate that Korana First Nation live in voluntary isolation.
3.7.6.1.	Where the operating company proposes to use the intangible cultural heritage, including knowledge, innovations or practices of local communities for commercial purposes, the company shall inform these communities of their rights under national and international law, of the scope and nature of the proposed commercial development, and of the potential consequences of such development.	—	Interviews with managers indicate that intangible cultural heritage is not being made use of (knowledge, innovation, or practices) from local communities.
3.7.6.2.	<p>The operating company shall not proceed with such commercialization unless it:</p> <ul style="list-style-type: none"> a. Collaborates with affected communities using a good faith negotiation process that results in a documented outcome; and 	—	A manager interview indicates that intangible cultural heritage is not being used (knowledge, innovation, or practices) by local communities.

Requirement #	Requirement Text	Rating	Basis for rating
	b. Provides for fair and equitable sharing of benefits from commercialization of such knowledge, innovation, or practice, consistent with local customs and traditions.		
3.7.6.3.	Where the operating company proposes to use indigenous peoples' cultural heritage for commercial uses, negotiation shall take place through the Free, Prior and Informed Consent process outlined in IRMA Chapter 2.2 unless otherwise specified by the indigenous peoples.	—	A manager Interview indicates that the site does not make use of Indigenous cultural heritage for commercial purposes.
3.7.7.1.	A cultural heritage management plan or its equivalent shall be developed that outlines the actions and mitigation measures to be implemented to protect cultural heritage.	☑	An updated and consolidated Cultural Heritage Management Plan (2021) with mitigation measures is in place to manage potential cultural heritage impacts.
3.7.7.2.	<p>If a new or existing mine is in an area where cultural heritage is expected to be found, the operating company shall develop procedures for:</p> <ul style="list-style-type: none"> a. Managing chance finds, including, at minimum, a requirement that employees or contractors shall not further disturb any chance find until an evaluation by competent professionals is made and actions consistent with the requirements of this chapter are developed; b. Managing potential impacts to c. Allowing continued access to cultural sites, subject to consultations with affected communities and overriding health, safety, and security considerations; and d. If the mining project affects indigenous peoples' cultural heritage, the operating company shall collaborate with indigenous peoples to determine procedures related to the sharing of information related to cultural heritage. 	☑	The Cultural Heritage Management Plan includes a suitable chance finds procedure, and measures are put in place to reduce access to the sites, and the impact of visitors / contractors to the sites. Potential relevance to Indigenous Peoples is considered.



Requirement #	Requirement Text	Rating	Basis for rating
3.7.7.3.	The operating company shall ensure that relevant employees receive training with respect to cultural awareness, cultural heritage site recognition and care, and company procedures for cultural heritage management.	✔	The updated Cultural Heritage Management Plan, manager interview and attendance log indicate that relevant training for staff is provided on an as-needed basis when working in an area where cultural heritage sites have been identified.



Principle 4: Environmental Responsibility

RATING LEGEND

Description of performance

	Fully meets
	Substantially meets
	Partially meets
	Does not meet
	Not relevant



Requirement #	Requirement Text	Rating	Basis for rating
Chapter 4.1—Waste and Materials Management			
4.1.1.1.	The operating company shall develop a policy for managing waste materials and mine waste facilities in a manner that eliminates, if practicable, and otherwise minimizes risks to human health, safety, the environment and communities.		Sishen mine has not developed a specific policy for managing waste materials and mine waste facilities. Currently, waste is included in the Safety, Health, Environment and Quality policy.
4.1.1.2.	The operating company shall demonstrate its commitment to the effective implementation of the policy by, at minimum: <ul style="list-style-type: none"> a. Having the policy approved by senior management and endorsed at the Director/Governance level of the company; b. Having a process in place to ensure that relevant employees understand the policy to a degree appropriate to their level of responsibility and function, and that they have the competencies necessary to fulfill their responsibilities; 		. Currently, waste is included in the Safety, Health, Environment and Quality policy. The policy addresses some, but not all the requirements as set out in 4.1.1.2

Requirement #	Requirement Text	Rating	Basis for rating
	<p>c. Having procedures and/or protocols in place to implement the policy; and</p> <p>d. Allocating a sufficient budget to enable the effective implementation of the policy.</p>		
4.1.2.1.	<p>The operating company shall:</p> <p>a. Identify all materials, substances and wastes (other than mine wastes) associated with the mining project that have the potential to cause impacts on human health, safety, the environment or communities; and</p> <p>b. Document and implement procedures for the safe transport, handling, storage and disposal of those materials, substances and wastes.</p>		<p>Sishen mine has developed extensive procedures to identify hazardous and non-hazardous waste streams generated at the mine. The procedures include the identification, storage, transportation, and safe disposal of all the hazardous waste streams, including emergency response. The actual waste streams can be found in the Integrated Water and Waste Management Plan.</p> <p>It was noted that the trucks transporting waste onsite were not compliant with the regulatory requirements for placarding. Flammable products were not stored in the flammable storage area in the reclamation yard.</p>
4.1.3.1.	<p>The operating company shall identify all existing and/or proposed mine waste facilities that have the potential to be associated with waste discharges or incidents, including catastrophic failures, that could lead to impacts on human health, safety, the environment or communities.</p>		<p>The Sishen Iron Ore Mine (SIOM) has undertaken third-party investigations and developed in-house documentation to support the comprehensive identification of existing and proposed mine waste facilities. The documentation covers the development, management, catastrophic failures, and emergency response of the identified facilities, with documentation as recent as 2021. The updated Mine Closure Plan dated 2021 addresses the identification and disposal of mine waste at the time of closure, which is estimated to be 2040. The updated Integrated Water and Waste Management Plan 2019 contains an action plan to address water- and waste-related issues at SIOM. Also included are actions (operational) required to ensure compliance to the consolidated integrated water use license (IWUL) and the high energy fuel (HEF) plant water use license (WUL), as highlighted in the 2019 External Water Use License Compliance Audit ("EWULCA").</p>
4.1.3.2.	<p>The operating company shall perform a detailed characterization for each mine waste facility that has associated chemical risks. Characterization shall include:</p> <p>a. A detailed description of the facility that includes geology, hydrogeology and hydrology, climate change projections, and all potential sources of mining impacted water (MIW);</p> <p>b. Source material characterization using industry best practice to determine potential for acid rock</p>		<p>The documents and reports by third-party specialists, submitted by Sishen Mine regarding chemical risks at the mine, show that no chemical risks exist as far as acid rock drainage or metal leaching are concerned.</p> <p>Geology and water balance information for the waste facilities was submitted and reviewed.</p> <p>The site acknowledged that no information was available to meet the other requirements of 4.1.3.2</p>




Requirement #	Requirement Text	Rating	Basis for rating
	<p>drainage (ARD) or metals leaching (ML). This shall include:</p> <ul style="list-style-type: none"> i. Analysis of petrology, mineralogy, and mineralization; ii. Identification of geochemical test units; iii. Estimation of an appropriate number of samples for each geochemical test unit; and iv. Performance of comprehensive geochemical testing on all samples from each geochemical test unit. <p>c. A conceptual model that describes what is known about release, transport and fate of contaminants and includes all sources, pathways and receptors for each facility;</p> <p>d. Water balance and chemistry mass balance models for each facility; and</p> <p>e. Identification of contaminants of concern for the facility/source materials, and the potential resources at risk from those contaminants.</p>		
4.1.3.3.	<p>The operating company shall identify the potential physical risks related to tailings storage facilities and all other mine waste facilities where the potential exists for catastrophic failure resulting in impacts on human health, safety, the environment or communities. Evaluations shall be informed by the following:</p> <ul style="list-style-type: none"> a. Detailed engineering reports, including site investigations, seepage and stability analyses; b. Independent technical review (See criteria 4.1.6) c. Facility classification based on risk level or consequence of a failure, and size of the structure/impoundment; d. Descriptions of facility design criteria; e. Design report(s); 	✔	<p>The mine appoints third-party specialists, SLR Consulting and Jones and Wagner, to conduct independent technical reviews and inspections of the tailing's dams. These reports were reviewed, and the criteria as set out in the requirement were met by these detailed reports. No major findings were noted. These studies include emergency planning, design, dam break analysis, dam wall height, long term feasibility, and tailings storage facility (TSF) operation. Furthermore, the mine conducts bi-weekly inspections by a professional engineer, and quarterly reports on Tailing Storage Facilities are created, distributed, and discussed.</p>

Requirement #	Requirement Text	Rating	Basis for rating
	<ul style="list-style-type: none"> f. Short-term and long-term placement plans and schedule for tailings and waste rock or other facilities subject to stability concerns; g. Master tailings placement plan (based on life of mine); h. Internal and external inspection reports and audits, including, if applicable, an annual dam safety inspection report; i. Facility water balances (See also 4.1.3.2.d); and j. Dam breach inundation (if applicable) and waste rock dump runout analyses. 		
4.1.3.4.	Facility characterizations shall be updated periodically to inform waste management and reclamation decisions throughout the mine life cycle.	●	<p>The documentation reviewed confirmed the periodic review and subsequent updating of waste management decisions for the tailings facilities.</p> <p>No documentation was submitted to support that the same principles were being applied to all mine waste facilities.</p>
4.1.3.5.	Use of predictive tools and models for mine waste facility characterization shall be consistent with current industry best practice, and shall be continually revised and updated over the life of the mine as site characterization data and operational monitoring data are collected.	●	<p>The documents reviewed for the tailings facility showed that the appointed third-party , appointed by Sishen, consultants were using best practice and are updated, at a minimum, biannually.</p> <p>Using predictive tools for the on-site household dumping and recycling site, the reclamation yard, and other areas where waste is accumulated, has not been implemented.</p>
4.1.4.1.	<p>Critical A risk-based approach to mine waste assessment and management shall be implemented that includes:</p> <ul style="list-style-type: none"> a. Identification of potential chemical risks (see 4.1.3.2.e) and physical risks (see 4.1.3.3) during the project conception and planning phase of the mine life cycle; b. A rigorous risk assessment to evaluate the potential impacts of mine waste facilities on health, safety, environment and communities early in the life cycle; 	●	<p>The site has developed and implemented a procedure on risk management for the mine. Independent risk assessments are conducted and updated for the tailings facilities. However, the onsite assessment identified that no risk assessments were conducted for any of the other identified waste facilities at the mine.</p> <p>At the follow-up audit, a baseline risk assessment was made available for review and includes environmental, chemical, social, health and safety and physical risks. The “BASELINE RISK ASSESSMENT – Waste & Water” was made available for review.</p>






Requirement #	Requirement Text	Rating	Basis for rating
	<ul style="list-style-type: none"> c. Updating of risk assessments at a frequency commensurate with each facility's risk profile, over the course of the facility's life cycle; and d. Documented risk assessment reports, updated when risks assessments are revised (as per 4.1.4.1.c). 		<p>All risks identified in the baseline risk assessment as having a potential impact rating of 5 (i.e., major risks) are taken through issue-based risk assessment processes followed by bowtie analyses. The bowtie analyses process identifies critical controls and other controls that are required to prevent the priority unwanted events. Third-party assessments of waste facilities were available for review. The frequency of review and the process for updating the risk registers was not clear from the documentation supplied.</p>
4.1.4.2.	<p>The operating company shall carry out and document an alternatives assessment to inform mine waste facility siting and selection of waste management practices. The assessment shall:</p> <ul style="list-style-type: none"> a. Identify minimum specifications and performance objectives for facility performance throughout the mine life cycle, including mine closure objectives and post-closure land and water uses; b. Identify possible alternatives for siting and managing mine wastes, avoiding a priori judgements about the alternatives; c. Carry out a screening or "fatal flaw" analysis to eliminate alternatives that fail to meet minimum specifications; d. Assess remaining alternatives using a rigorous, transparent decision-making tool such as Multiple Accounts Analysis (MAA) or its equivalent, which takes into account environmental, technical, socio-economic and project economics considerations, inclusive of risk levels and hazard evaluations, associated with each alternative; e. Include a sensitivity analysis to reduce potential that biases will influence the selection of final site locations and waste management practices; and f. Be repeated, as necessary, throughout the mine life cycle (e.g., if there is a mine expansion or a lease extension that will affect mine waste management). 	⊗	<p>No documentation to support the requirements in 4.1.4.2 was submitted for review.</p>





Requirement #	Requirement Text	Rating	Basis for rating
4.1.5.1.	<p>Critical Mine waste facility design and mitigation of identified risks shall be consistent with best available technologies (BAT) and best available/applicable practices (BAP).</p>		<p>The site has considered the best available technologies (BAT) and best available/applicable practices (BAP) in the design of tailings facilities on-site.</p> <p>The site is conducting monitoring and updating of risk assessments of tailings facilities, which also inform management at review meetings.</p> <p>However, no evidence was submitted for review to show that these criteria have been applied to all mine waste facilities.</p> <p>The mine personnel confirmed that tailings facilities, as rated in the risk assessment, are the most critical waste facilities on site with respect to design and risk mitigation.</p>
4.1.5.2.	<p>Mitigation of chemical risks related to mine waste facilities shall align with the mitigation hierarchy as follows:</p> <ol style="list-style-type: none"> Priority shall be given to source control measures to prevent generation of contaminants; Where source control measures are not practicable or effective, migration control measures shall be implemented to prevent or minimize the movement of contaminants to where they can cause harm; and If necessary, mine-impacted water shall be captured and treated to remove contaminants before water is returned to the environment or used for other purposes. 		<p>All the mineral waste streams are not hazardous according to SANS 10234 as per the Waste Classification and Management Regulations (GN R.634 of 23 August 2013).</p> <p>Based on semi-quantitative source terms and seepage classification and characterization of mineral waste, seepage from the mining residue facilities (MRFs), aka tailings facilities, is predicted to have low impact on groundwater. Leachate from the waste rock dumps and tailings is predicted to be neutral mine drainage with low metal content, even under conditions of maximum oxidation.</p> <p>Given the low geochemical, toxicological, and waste risk profile of the mineral waste streams, and the low to minimal impact of the MRFs on water resources and biodiversity, a Class C barrier system in terms of the National Norms and Standards for Disposal of Waste to Landfill (GN R.636 of 23 August 2013) would not add value in terms of environmental protection.</p> <p>Furthermore, given that the waste streams are not hazardous in terms of SANS10234 and that the leachate from any of the mineral waste streams does not exceed any of the initial leachable concentration thresholds (LC < LCT0 thus the complete definition of Type 3 waste is not met), the application of a Class C barrier system, which is prescribed for Type 3 waste, is not justified.</p>
4.1.5.3.	<p>For high-consequence rated mine waste facilities, a critical controls framework shall be developed that aligns with a generally accepted industry framework, such as, for example, the process outlined in Mining Association of Canada's Tailings Management Guide.</p>		<p>The site has identified the critical control strategy within site documents. This includes making use of the risk identification method called 'Bowtie.' Through this all-critical controls have been identified and a detailed monitoring plan has been implemented. This includes emergency action planning for dam owners.</p>

Requirement #	Requirement Text	Rating	Basis for rating
			The mine is also subscribing to the new Global Industry Standard on Tailings Management (GISTM).
4.1.5.4.	Mine waste management strategies shall be developed in an interdisciplinary and interdepartmental manner and be informed by site-specific characteristics, modeling and other relevant information.	●	Other site departments have a limited level of involvement in the development of mine waste management strategies. The mine has a dedicated team that manages all waste on-site. This team consists of qualified, competent employees. The mine contracts a specialist to conduct specialist risk assessments.
4.1.5.5.	<p>The operating company shall develop an Operation, Maintenance and Surveillance (OMS) manual (or its equivalent) aligned with the performance objectives, risk management strategies, critical controls and closure plan for the facility, that includes:</p> <ol style="list-style-type: none"> a. An operations plan that documents practices that will be used to transport and contain wastes, and, if applicable, effluents, residues, and process waters, including recycling of process waters; b. A documented maintenance program that includes routine, predictive and event-driven maintenance to ensure that all relevant parameters (e.g., all civil, mechanical, electrical and instrumentation components of a mine waste facility) are maintained in accordance with performance criteria, company standards, host country law and sound operating practices; c. A surveillance program that addresses surveillance needs associated with the risk management plan and critical controls management, and includes inspection and monitoring of the operation, physical and chemical integrity and stability, and safety of mine waste facilities, and a qualitative and quantitative comparison of actual to expected behavior of each facility; d. Documentation of facility-specific performance measures as indicators of effectiveness of mine waste management actions; and e. Documentation of risk controls and critical controls (see also 4.1.5.3), associated performance criteria and 	●	<p>The mine has developed an Operations and Maintenance Plan. The site reported that this plan does not comply with the IRMA requirements and will need a large amount of work before it will be a complete Operation, Maintenance and Surveillance manual as set out the IRMA requirements.</p> <p>The site didn't provide further information.</p>

Requirement #	Requirement Text	Rating	Basis for rating
	indicators, and descriptions of pre-defined actions to be taken if performance criteria are not met or control is lost.		
4.1.5.6.	<p>Critical On a regular basis, the operating company shall evaluate the performance of mine waste facilities to:</p> <ul style="list-style-type: none"> a. Assess whether performance objectives are being met (see 4.1.4.2.a and 4.1.5.5); b. Assess the effectiveness of risk management measures, including critical controls (see 4.1.5.3); c. Inform updates to the risk management process (see 4.1.4.1.c) and the OMS (see 4.1.5.7); and d. Inform the management review to facilitate continual improvement (see 4.1.5.8). 		<p>The site is conducting monitoring and updating of risk assessments of tailings facilities which also informs management at review meetings. According to the risk assessment, the tailings facilities, are regarded as the highest risk of all the mine waste facilities.</p> <p>The mine appointed a specialist to assist with developing performance objectives for the mine waste facilities. The mine has scheduled inspections to be performed by internal and external experts.</p> <p>No further evidence was submitted to show that the site considers the same criteria for all the other onsite waste facilities.</p>
4.1.5.7.	The OMS manual shall be updated and new or revised risk and critical control strategies implemented if information reveals that mine waste facilities are not being effectively operated or maintained in a manner that protects human health and safety, and prevents or otherwise minimizes harm to the environment and communities.		Although the mine has implemented monitoring and measuring for mine waste facilities, the process currently does not update the risk assessment. The outcomes of these inspections are reviewed at top management level.
4.1.5.8.	<p>The operating company shall implement an annual management review to facilitate continual improvement of tailings storage facilities and all other mine waste facilities where the potential exists for contamination or catastrophic failure that could impact human health, safety, the environment or communities. The review shall:</p> <ul style="list-style-type: none"> a. Align with the steps outlined in the Mining Association of Canada's Tailings Management Protocol or a similar framework; and b. Be documented, and the results reported to an accountable executive officer. 		<p>Annually the TSF's are audited. A technical review panel reviews the audit report that is conducted by an independent third party, The final report is submitted to the general manager. The auditor was not able to verify that the audit is aligned with the requirements of a.</p> <p>No other documentation was submitted to show that all mine waste facilities comply with the requirements.</p>




Requirement #	Requirement Text	Rating	Basis for rating
4.1.6.1.	The siting and design or re-design of tailings storage facilities and other relevant mine waste facilities, and the selection and modification of strategies to manage chemical and physical risks associated with those facilities shall be informed by independent reviews throughout the mine life cycle.	☑	Independent reviews are conducted by appointed industry experts. The mine conducts independent technical reviews of the tailings storage facilities annually. The latest reports were done in 2021. In the case of a new siting and design or a redesign of a tailings facility, the mine will have to conduct an environmental impact assessment in which specialist studies will be identified, alternatives will be investigated, and the design will be scrutinized. The outcomes of the specialist studies will contribute to the development of a management plan setting out the checks and balances..
4.1.6.2.	Reviews shall be carried out by independent review bodies, which may be composed of a single reviewer or several individuals. At high-risk mine waste facilities, a panel of three or more subject matter experts shall comprise the independent review body.	☑	The review is declared independent and was conducted by suitably qualified professionals: S A Dorman (PrEng); F van Heerden (PrEng); and B Randell (PrEng of SLR Consulting (South Africa) (Pty) Ltd.
4.1.6.3.	Independent reviewers shall be objective, third-party, competent professionals.	☑	SLR Consulting is an independent consulting company that has not been involved in the original design of the tailings storage facilities. The auditors are professional engineers.
4.1.6.4.	Independent review bodies shall report to the operation's general manager and an accountable executive officer of the operating company or its corporate owner.	⊕	It was verified that the independent review report is submitted to the general manager. The mine is in the process of appointing an accountable executive member for tailings.
4.1.6.5.	The operating company shall develop and implement an action plan in response to commentary, advice or recommendations from an independent review, document a rationale for any advice or recommendations that will not be implemented, and track progress of the plan's implementation. All of this information shall be made available to IRMA auditors.	⊗	No documents were submitted for review.
4.1.7.1.	Stakeholders shall be consulted during the screening and assessment of mine waste facility siting and	⊕	The site has minutes of consultation with local stakeholders on emergency planning in the event of a slime dam failure, but this did not include advanced discussion of alternative options.



Requirement #	Requirement Text	Rating	Basis for rating
	management alternatives (see 4.1.4.2), and prior to the finalization of the design of the facilities.		
4.1.7.2.	Emergency preparedness plans or emergency action plans related to catastrophic failure of mine waste facilities shall be discussed and prepared in consultation with potentially affected communities and workers and/or workers' representatives, and in collaboration with first responders and relevant government agencies. (See also IRMA Chapter 2.5).		Minutes of consultation meetings show cooperation with local communities and external emergency responders. The last available information for this site exercise is 2019.
4.1.7.3.	Emergency and evacuation drills (desktop and live) related to catastrophic failure of mine waste facilities shall be held on a regular basis. (See also IRMA Chapter 2.5).		The site reported that evacuation drills according to the Tailings Emergency Response Plan were conducted in 2019. No further information regarding the dates, schedules or feedback from the drills was submitted for review. Minutes of consultation meetings show that the emergency drills and the overall emergency plan were amended in response to stakeholder comments.
4.1.7.4.	If requested by stakeholders, the operating company shall report to stakeholders on mine waste facility management actions, monitoring and surveillance results, independent reviews and the effectiveness of management strategies.		The site reported that information is shared at community interactions; however, no documentary evidence was submitted to substantiate this and to confirm the exact information that is shared.
4.1.8.1.	Critical At the present time, mine sites using riverine, submarine and lake disposal of mine waste materials will not be certified by IRMA.		Evidence from the waste management plan indicates that riverine or estuarine bodies are not used for waste disposal.
Chapter 4.2—Water Management			
4.2.1.1.	The operating company shall identify water users, water rights holders and other stakeholders that may potentially affect or be affected by its mine water management practices.		The site has identified stakeholders in the Water Management Plan. The mine site is a net exporter of water to the region, because of mine dewatering, and supplies water to the local water provider. The Water Management Plan was reviewed, indicating that the site identifies water users, water rights holders and other




Requirement #	Requirement Text	Rating	Basis for rating
			stakeholders that may potentially affect or be affected by its mine water management practices. The mine is a net positive water site.
4.2.1.2.	The operating company shall conduct its own research and collaborate with relevant stakeholders to identify current and potential future uses of water at the local and regional level that may be affected by the mine's water management practices.		By conducting a hydro census survey, Sishen has researched all water users in the area and identified the future water impacts due to the mining operation, including uses of water at the local and regional level that may be affected by the mine. The information gathering was done in conjunction with local and regional representatives from the government. The site-specific water management standard sets out the guidelines for effective stakeholder management.
4.2.1.3.	The operating company shall conduct its own research and collaborate with relevant stakeholders to identify and address shared water challenges and opportunities at the local and regional levels, and shall take steps to contribute positively to local and regional water stewardship outcomes.		The Water Infrastructure Plan 2019 for Sishen Mine clearly addresses water challenges and opportunities for the regional area the mine is in. The mine reports that collaboration with local and regional is an ongoing exercise, however no clear evidence of collaboration was supplied.
4.2.2.1.	The operating company shall gather baseline or background data to reliably determine: <ul style="list-style-type: none"> a. The seasonal and temporal variability in: <ul style="list-style-type: none"> i. The physical, chemical and biological conditions of surface waters, natural seeps/springs and groundwater that may be affected by the mining project; ii. Water quantity (i.e., flows and levels of surface waters, natural seeps/springs and groundwater) that may be affected by the mining project; and b. Sources of contamination and changes in water quantity or quality that are unrelated to the mining project. 		Documents were reviewed, including water balance and baseline water studies. Data is collected. The site has conducted baseline water studies, including information addressing points a and b. A conceptual site model for water balance due to mining operations was conducted. This model incorporates season variations and surface water flows in the mine area of influence.
4.2.2.2.	The operating company shall carry out a scoping process that includes collaboration with relevant stakeholders, to identify potentially significant impacts that the mining project may have on water quantity and quality, and current and potential future		This was included in the Water Management Plan and in the conceptual models for future use. The site has an effective water management system that identifies impacts and holds regular correspondence with stakeholders. The site-specific water management standard outlines the guidelines for effective stakeholder management, and the site-specific water balance model contains all the





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	<p>water uses. The scoping process shall include evaluation of:</p> <ol style="list-style-type: none"> The mining-related chemicals, wastes, facilities and activities that may pose a risk to water quality; and The mine's use of water, and any mining activities that may affect water quantity. 		<p>information related to potential impacts due to mining. No issues were detected on mine water use analyses were reviewed.</p> <p>b. The mine's water use and any mining activities that may affect water quantity are evaluated.</p> <p>There was limited evidence of stakeholder participation in the monitoring program.</p>
4.2.2.3.	<p>Where potential significant impacts on water quantity or quality, or current and future water uses have been identified, the operating company shall carry out the following additional analyses to further predict and quantify the potential impacts:</p> <ol style="list-style-type: none"> Development of a conceptual site model (CSM) to estimate the potential for mine-related contamination to affect water resources; Development of a numeric mine site water balance model to predict impacts that might occur at different surface water flow/groundwater level conditions (e.g., low, average and high flows/levels); If relevant, development of other numerical models (e.g., hydrogeochemical/hydrogeological) to further predict or quantify potential mining-related impacts on water resources; and Prediction of whether water treatment will be required to mitigate impacts on water quality during operations and mine closure/post-closure. 	⚠	<p>Potential impacts on water quality:</p> <ol style="list-style-type: none"> Conceptual Site Model (updated annually - Q2 process was started and submitted in September). Water balance reports reviewed. Various scenarios were provided, and the report states no issues noted. Etasca Report 2021 is the latest model report; hydrogeochemical/hydrogeological predictive model and predictive tools were used. The site has not shown how mine closure would impact water availability and use. The site-specific mine closure standard provides an overview on how water impacts will be mitigated. Further details are needed in the closure plan to show the methodologies and mitigation of impacts to water quality following the mine closure.
4.2.2.4.	<p>Use of predictive tools and models shall be consistent with current industry best practices and shall be continually revised and updated over the life of the mine as operational monitoring and other relevant data are collected.</p>	✔	<p>Predictive model results are contained in the Water Management Plan. Mine water modelling has been conducted at site level. The water balance details at site level were provided in the water balance information report for Sishen in 2020. No issues were reported.</p>
4.2.3.1.	<p>The operating company, in collaboration with relevant stakeholders, shall evaluate options to mitigate predicted significant adverse impacts on water quantity and quality, and current and potential</p>	✔	<p>The Water Management Plan demonstrates consideration of mitigation measures in cooperation with stakeholders. Quarterly forums take place with the surrounding community. The latest meeting took place on 22 September 2021. The site has conducted stakeholder engagements with regards to water</p>





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	future water uses that may be affected by the mine's water management practices. Options shall be evaluated in a manner that aligns with the mitigation hierarchy.		management practices. The stakeholder management and engagement process for engaging stakeholders on topics pertaining to water management is defined by site level in the Water Management Plan.
4.2.3.2.	<p>If a surface water or groundwater mixing zone is proposed as a mitigation strategy:</p> <ul style="list-style-type: none"> a. A risk assessment shall be carried out to identify, evaluate and document risks to human health, local economies and aquatic life from use of the proposed mixing zone, including, for surface water mixing zones, an evaluation of whether there are specific contaminants in point source discharges, such as certain metals, that could accumulate in sediment and affect aquatic life; and b. If any significant risks are identified, the operating company shall develop mitigation measures to protect human health, aquatic life and local economies including, at minimum: <ul style="list-style-type: none"> i. Surface water or groundwater mixing zones are as small as practicable; ii. Water in a surface water mixing zone is not lethal to aquatic life; iii. A surface water mixing zone does not interfere with the passage of migratory fish; iv. Surface water or groundwater mixing zones do not interfere with a pre-mine use of water for irrigation, livestock or drinking water, unless that use can be adequately provided for by the operating company through another source of similar or better quality and volume, and that this substitution is agreed to by all potentially affected water users; and v. Point source discharges into a surface water mixing zone match the local hydrograph for surface water flows to the extent practicable. 	—	No surface water or groundwater mixing zone is proposed as a mitigation strategy, as it is not applicable to the site. No mixing of water is taking place, and the site is a net positive water site. Most water is recycled in a closed loop. A detailed site-level Water Management Plan is available.

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4.2.3.3.	<p>Waters affected by the mining project shall be maintained at a quality that enables safe use for current purposes and for the potential future uses identified in collaboration with relevant stakeholders (see 4.2.1.2). In particular, the operating company shall demonstrate that contaminants measured at points of compliance are:</p> <ul style="list-style-type: none"> a. Being maintained at baseline or background levels; or b. Being maintained at levels that are protective of the identified uses of those waters (See IRMA Water Quality Criteria by End Use Tables 4.2.a to 4.2.h, which correspond to particular end uses). 		<p>The Water Management Plan identifies water quality requirements. The Water Management Plan with sampling procedure is detailed for all water types (i.e., surface, groundwater, extraction boreholes).</p> <ul style="list-style-type: none"> a. Contaminants are being maintained at baseline as per independent lab results. b. Contaminants are maintained within levels safe for the environment and human uses and are protective of the identified uses of those waters. <p>However, the baseline data is not consistent with the IRMA water quality standard.</p>
4.2.3.4.	<p>Unless agreed by potentially affected stakeholders, water resources affected by mining activities shall be maintained at quantities that enable continued use of those resources for current purposes and for the potential future uses identified in collaboration with relevant stakeholders (see 4.2.1.2).</p>		<p>The site has conducted effective stakeholder engagements and ensured stakeholder water supplies will not be affected by the mine operations. Stakeholder management is provided in the site-specific Water Management Plan. The mine is a net positive water site.</p>
4.2.4.1.	<p>Critical (a through e) The operating company shall develop and document a program to monitor changes in water quantity and quality. As part of the program the operating company shall:</p> <ul style="list-style-type: none"> a. Establish a sufficient number of monitoring locations at appropriate sites to provide reliable data on changes to water quantity and the physical, chemical and biological conditions of surface waters, natural springs/seeps and groundwater (hereafter referred to as water characteristics); b. Sample on a frequent enough basis to account for seasonal fluctuations, storm events and extreme events that may cause changes in water characteristics; 		<p>The Water Management Plan includes monitoring points, schedules of collection, etc. Water sampling results are in place. The site has a site-level Water Management Plan that outlines the procedure on water quality management. Water quality on-site is managed via a process of sampling monitoring boreholes, surface water and potable water.</p> <ul style="list-style-type: none"> a. The program has an adequate number of monitoring locations at appropriate sites to provide reliable data on changes to water quantity and the physical, chemical, and biological conditions of all relevant bodies of water that could be affected by the company's operations. b. Seasonal fluctuations, storm events and extreme events are considered in the water management program. c. Trigger action response plans are included in the Water Management Plan and procedures. d. Quality and quantity data are recorded for mine-affected waters destined for reuse by non-mining entities.

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	<ul style="list-style-type: none"> c. Establish trigger levels and/or other indicators to provide early warning of negative changes in water characteristics; d. Sample the quality and record the quantity of mine-affected waters destined for re-use by non-mining entities; e. Use credible methods and appropriate equipment to reliably detect changes in water characteristics; and f. Use accredited laboratories capable of detecting contaminants at levels below the values in the IRMA Water Quality Criteria by End-Use Tables. 		<ul style="list-style-type: none"> e. The analytical instrumentation and methods are appropriate. f. Laboratories subcontracted are accredited for detecting contaminant levels below the South African legal requirements.
4.2.4.2.	<p>Samples shall be analyzed for all parameters that have a reasonable potential to adversely affect identified current and future water uses. Where baseline or background monitoring, source characterization, modeling, and other site-specific information indicate no reasonable potential for a parameter to exceed the baseline/background values or numeric criteria in the IRMA Water Quality Criteria by End-Use Tables (depending on the approach used in 4.2.3.3), those parameters need not be measured on a regular basis.</p>		<p>Water sampling results are in place. The site-specific Groundwater Quality Management Plan is well-defined. The site has collected baseline water quality data during the environmental impact assessment and has conducted site-level water modelling. The site has provided site-level evidence on the laboratory reports of the water quality data. The site has provided evidence on the water quality parameters that are used for reporting water quality on-site. However, water quality standards refer to South African regulations, not IRMA criteria.</p> <p>No chemicals or other metals have been identified that could cause pollution.</p>
4.2.4.3.	<p>The operating company shall actively solicit stakeholders from affected communities to participate in water monitoring and to review and provide feedback on the water monitoring program:</p> <ul style="list-style-type: none"> a. Participation may involve the use of independent experts selected by the community; and b. If requested by community stakeholders, costs related to participation in monitoring and review of the monitoring program shall be covered in full or in part by the company, and a mutually acceptable agreement for covering costs shall be developed. 		<p>The Water Management Plan details how stakeholders are to be involved, but there is limited evidence of their participation provided. The Sishen Water Management Plan effectively involves stakeholders and independent experts for modelling.</p> <p>Monitoring plans and results are submitted to the environmental agency by law and made public. However, there is no evidence of participation of stakeholders in water monitoring.</p> <ul style="list-style-type: none"> a. There is no evidence of an independent expert being used. b. The company covered all costs. <p>In the event of community protests or picketing, a survey campaign to interview people is scheduled with the participation of the demonstrators.</p>




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4.2.4.4.	<p>Critical The operating company shall develop and implement an adaptive management plan for water that:</p> <ul style="list-style-type: none"> a. Outlines planned actions to mitigate predicted impacts on current and future uses of water and natural resources from changes in surface water and groundwater quality and quantity related to the mining project; and b. Specifies adaptive management actions that will occur if certain outcomes (e.g., specific impacts), indicators, thresholds or trigger levels are reached, and timelines for their completion. 		<p>An Adaptive Water Management Standard has been developed. However, at the time of the onsite audit, it was still in draft format. The site intends to develop the plan according to the standard once the standard has been approved.</p> <p>During the follow-up assessment the audit team reviewed the additional information provided. The evidence reviewed included the "Kumba Iron Ore Adaptive Water Management Standard", the "Water Management Plan", and guidance documentation explaining the relationship between these documents. Water quality management within the Water Management Plan includes information on the required elements of water quality monitoring, (e.g. potable, surface, and ground water). Monthly, quarterly and annual reporting frequencies have been established. Trigger action response plan (TARP) is referenced under Tailings Water Management but is focused on dam wall failure or loss of containment. Evidence provided for Sishen included discussion of Site-Specific-Trigger-Values (SSTVs). Additional supporting documentation was presented to the audit team, explaining the relationship between the Water Management Plan, the Kumba Iron Ore Adaptive Water Management Standard, and the Integrated Water and Waste Management Plan. Collectively these plans outline adaptive management actions to mitigate impacts on current and future uses of water and response to changes in water quality and quantity as certain indicators (SSTVs) are reached. The effective implementation of these three key plans for adaptive water management will be an area of focus during the surveillance audit.</p>
4.2.4.5.	<p>Annually or more frequently if necessary (e.g., due to changes in operational or environmental factors), the operating company shall review and evaluate the effectiveness of adaptive management actions, and, as necessary, revise the plan to improve water management outcomes.</p>		<p>During the follow-up assessment the audit team reviewed the "Kumba Iron Ore Adaptive Water Management Standard", the recently updated "Water Management Plan", and guidance documentation explaining the relationship between these documents. These documents identify the requirement for regular updating.</p>
4.2.4.6.	<p>Community stakeholders shall be provided with the opportunity to review adaptive management plans and participate in revising the plans.</p>		<p>Since the Kumba Iron Ore Adaptive Water Management Standard", and the recently updated "Water Management Plan" were provided for review during the follow-up assessment. The Standard commits Sishen to providing stakeholders with opportunity to review the water management plans. The Sishen Water Management Plan identifies key stakeholders, and based on a review of evidence in Chapter 1.2, Sishen engage with stakeholders on water management. However, no evidence was provided to demonstrate that stakeholders had an opportunity to participate in the revision of the Water Management Plan.</p>

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4.2.5.1.	The operating company shall publish baseline or background data on water quantity and quality, and the following water data shall be published annually, or at a frequency agreed by stakeholders from affected communities: <ul style="list-style-type: none"> a. Monitoring data for surface water and groundwater points of compliance; and b. Monitoring data for water quantity (i.e., flows and levels of surface waters, springs/seeps and groundwater), and the volume of water discharged and extracted/pumped for mining operations. 		At community days and stakeholder engagements a limited amount of data concerning water is shared; however, this does not meet the level of detail described in the IRMA requirement. No agreement has been reached with communities and stakeholders regarding the frequency of when the data will be shared.
4.2.5.2.	The operating company shall develop and implement effective procedures for rapidly communicating with relevant stakeholders in the event that there are changes in water quantity or quality that pose an imminent threat to human health or safety, or commercial or natural resources.		No evidence was submitted by the site to support the requirement to have a mechanism in place to be able to rapidly communicate with the stakeholders in the event of a change in water quality or quantity.
4.2.5.3.	The operating company shall discuss water management strategies, performance and adaptive management issues with relevant stakeholders on an annual basis or more frequently if requested by stakeholders.		The Water Management Plan is reviewed annually with stakeholders involved, but this does not include adaptive or predictive planning. The Water Management Plan is available to stakeholders for review. An adaptive plan is not completed and therefore not implemented.
Chapter 4.3—Air Quality			
4.3.1.1.	The operating company shall carry out air quality screening to determine if there may be significant air quality impacts associated with its operations.		The site's air quality management is governed by the Anglo American corporate document: Environmental Performance Standard: Air Quality and Emissions as well as the conditions of the Air Emissions License as issued by the Authorities. Sishen has identified, through specialist studies, the monitoring locations for PM10 and PM2.5 dust fall out. 36 buckets are placed inside the mining area and 20 buckets outside of the mining area. The inside buckets are managed by the site

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			<p>and the outside buckets are managed by Gondwana Environmental Solutions International (Pty) Ltd.</p> <p>When Environmental Impact Assessments are conducted an Air Quality Impact study forms part of the Environmental Impact Assessment.</p> <p>However, the IRMA air quality standards have not been considered.</p>
4.3.1.2.	During screening, or as part of a separate data gathering effort, the operating company shall establish the baseline air quality in the mining project area.		The baseline data is reflected in the Environmental Management Program (EMPR). The baseline air quality data has been collected during the environmental impact assessment. Sishen Iron Ore: Environmental Impact Assessment 2011. The baseline data is reflected in the Environmental Management Program. Baseline air quality in the mining project area is established by the company. However, the IRMA air quality standards have not been considered.
4.3.1.3.	If screening or other credible information indicates that air emissions from mining-related activities may adversely impact human health, quality of life or the environment, the operating company shall undertake an assessment to predict and evaluate the significance of the potential impacts.		The air quality management standard outlines the procedure for the predictions of impacts to air quality. The Sishen environmental impact assessment also includes an air quality baseline assessment and prediction of impacts. An assessment to predict and evaluate the significance of the potential impacts is carried out. However, the IRMA air quality standards have not been considered.
4.3.1.4.	The assessment shall include the use of air quality modeling and monitoring consistent with widely accepted and documented methodologies to estimate the concentrations, transport and dispersion of mining-related air contaminants.		The air quality monitoring procedure follows The National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004). The screening levels used for air quality in the environmental impact assessment were based on the South African National Standards residential screening levels. However, the IRMA Air quality standards have not been considered.
4.3.2.1.	Critical If significant potential impacts on air quality are identified, the operating company shall develop, maintain and implement an air quality management plan that documents measures to avoid, and where that is not possible, minimize adverse impacts on air quality.		The procedure is detailed the Air Quality Management Plan. The Air Quality Management Plan has been provided as evidence of compliance. According to the standard: "The air quality monitoring system includes direct source sampling and off-site ambient monitoring; and shall be representative of the site's area of influence." An air quality risk assessment is in the process of being conducted to determine the materiality of the risk, and where possible, align with the Operational Risk Management Program (ORMP).

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			<p>The Dust Action Plan identifies actions related to the Trigger Action Response Plan (TARP) to control and mitigate dusting events. Individuals are assigned responsibilities and deadlines under the action plan.</p> <p>The site has appointed third party specialists to conduct air quality models and dispersions as well as an air quality impact assessment.</p>
4.3.2.2.	Air quality management strategies and plans shall be implemented and updated, as necessary, over the mine life.	☑	The procedure is detailed the Air Quality Management Plan. The air quality management standard states the emissions inventory shall be updated and revised before 31 March every year, or if there are changes to site activities that could influence the parameters within the site's annual emissions inventory. This procedure is applicable to the entire life cycle of Sishen Mine from the project design phase, exploration, commissioning, operational, closure and post-closure phases. Mitigation action strategies are included in the plan.
4.3.3.1.	The operating company shall monitor and document ambient air quality and dust associated with the mining project by using personnel trained in air quality monitoring.	●	<p>Gondwana is the third party appointed company appointed to collect and analyze the outside dust buckets. Gondwana runs a SANS (South African National Standards) accredited laboratory. This is evidence of competence.</p> <p>The site reports that the inside dust buckets that are managed by the site and site personnel have been suitably trained. However, no evidence of the training was submitted for review.</p>
4.3.3.2.	Ambient air quality and dust monitoring locations shall be situated around the mine site, related operations and transportation routes and the surrounding environment such that they provide a representative sampling of air quality sufficient to demonstrate compliance or non-compliance with the air quality and dust criteria in 4.3.4.3, and detect air quality and dust impacts on affected communities and the environment. Where modeling is required (see 4.3.1.4) air monitoring locations shall be informed by the air quality modeling results.	☑	Maps indicating the locations where monitoring is taking place are included in the procedure. Fifty-six sampling buckets are in place. Buckets are also located in the town to monitor air quality to ensure that they are within limits. The Sishen air quality management standard sets out all monitoring locations and monitoring plans. The air quality monitoring system includes direct source sampling and off-site ambient monitoring and is representative of the site's area of influence. Air quality data is collated, and the emissions data are used to update the current site air quality management. Dispersion modelling is used.
4.3.4.1.	New mines and existing mines shall comply with the European Union's Air Quality Standards (EU Standards) as amended to its latest form (See Table 4.3, below) at the boundaries of the mine site and	—	At this time, per IRMA guidance, this requirement is not being scored. Air quality parameters complied with South African regulations, and also complied with IRMA requirements.

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	<p>transportation routes, and/or mitigate exceedances as follows:</p> <ul style="list-style-type: none"> a. If a mine is located in an air shed where baseline air quality conditions meet EU Standards, but emissions from mining-related activities cause an exceedance of one or more parameters, the operating company shall demonstrate that it is making incremental reductions in those emissions, and within five years demonstrate compliance with the EU Standards; or b. If a mine is located in an air shed where baseline air quality is already degraded below EU Standards, the operating company shall demonstrate that emissions from mining-related activities do not exceed EU Standards, and make incremental improvements to the air quality in the air shed that are at least equivalent to the mining project's emissions. 		<ul style="list-style-type: none"> a. N/A b. Mine does not exceed EU standards.
4.3.4.2.	<p>As an alternative to 4.3.4.1, the operating company may undertake a risk-based approach to protecting air quality as follows:</p> <ul style="list-style-type: none"> a. New and existing mines shall comply with host country air quality standards at a minimum, and where no host country standard exists mines shall demonstrate compliance with a credible international best practice standard; b. Where compliance is met for host country standards but the mine experiences a residual risk related to its air emissions, then more stringent international best practice standards shall apply; c. Where compliance is met for international best practice standards and a mine still experiences a residual risk from its air emissions, then the mine shall set more stringent self-designed limits, and implement additional mitigation measures to meet those limits; and d. For all air-emissions-related risks, the mine shall demonstrate that it is making incremental 	—	<p>At this time, per IRMA guidance, this requirement is not being scored. The air quality parameters comply with the South African requirements.</p>

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	reductions in emissions, through a multi-year phased plan with defined timelines.		
4.3.4.3.	Dust deposition from mining-related activities shall not exceed 350 mg/m ² /day, measured as an annual average. An exception to 4.3.4.3 may be made if demonstrating compliance is not reasonably possible through ordinary monitoring methods. In such cases the operating company shall utilize best available practices to minimize dust contamination.	—	At this time, per IRMA guidance, this requirement is not being scored. The mine air quality is managed according to: The National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004). This act states the daily dust deposition should not exceed 40 micrograms/m ³ average annually and 75 micrograms/m ³ per 24 hours.
4.3.5.1.	The operating company shall ensure that its air quality management plan and compliance information is up-to-date and publicly available, or made available to stakeholders upon request.		The air quality management standard for the site is up to date and in accordance with the local regulations. The standard also makes reference to stakeholders and ensures that they will be informed of any air quality-related issues. Constant communication is taking place with the community and stakeholders, and at the next community and stakeholder meeting, it has been requested for Sishen to provide information on the Air Quality Management Plan. The latest Air Quality Impact Assessment and Mitigation Report is publicly available and includes the new expansion. This is evident on the Shongoni Service providers website. Stakeholders do not feel fully engaged with the Air Quality Management Plan and compliance information of Sishen, which Sishen is working on improving.
Chapter 4.4—Noise and Vibration			
4.4.1.1.	The operating company shall carry out screening to determine if there may be significant impacts on offsite human noise receptors from the mining project's noise and/or vibration. Screening is required at all new mines, and also at existing mines if there is a proposed change to the mine plan that is likely to result in a new source of noise or vibration or an increase in existing noise or vibration levels.		A baseline noise survey was conducted in 2020/2021. Noise surveys are conducted in summer and winter. A noise survey was conducted along the boundaries of Sishen Mine, in summer and in winter 2020/2021. The study was conducted in daytime and nighttime. The study was in line with SANS 10103 of 2008 and the Health and Safety Regulations of the International Finance Corporation of the World Bank. The screening criteria used is in line with the SANS standards.
4.4.1.2.	If screening identifies potential human receptors of noise from mining-related activities, then the operating company shall document baseline		A baseline noise survey was conducted in summer and winter and shows acceptable noise levels. Summer and winter noise surveys were conducted in 2020/2021 around the Sishen Mine site boundary. The study describes the

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	ambient noise levels at both the nearest and relevant offsite noise receptors.		receptors and the receiving environment. Screening of noise levels was done under SANS 10103 of 2008 and the Health and Safety Regulations of the International Finance Corporation of the World Bank.
4.4.2.1.	If screening or other credible information indicates that there are residential, institutional or educational noise receptors that could be affected by noise from mining-related activities, then the operating company shall demonstrate that mining-related noise does not exceed a maximum one-hour LAeq (dBA) of 55 dBA during the hours of 07:00 to 22:00 (i.e., day) and 45 dBA at other times (i.e., night) at the nearest offsite noise receptor. These hours may be adjusted if the operating company can justify that alternative hours are necessary and/or appropriate because of local, cultural or social norms.	☑	Baseline data is from 2020/2021. The noise survey indicates that site boundary noise meets the guidelines of 55dB(A) for daytime and 45dB(A) for nighttime. The noise studies that were conducted in 2020/2021 at the Sishen Mine followed the regulatory requirements recommended by the World Bank, IFC (International Finance Corporation) and SANS. These levels are in line with the recommended: 55 dBA during the hours of 07:00 to 22:00 (i.e., day) and 45 dBA at other times (i.e., night) at the nearest off-site noise receptor. The noise study concluded that Sishen noise levels comply with these threshold values. The town of Kathu lies east of the mine, and Sesheng Township lies north of the mine.
4.4.2.2.	The following exceptions to 4.4.2.1 apply: a. If baseline ambient noise levels exceed 55 dBA (day) and/or 45 dBA (night), then noise levels shall not exceed 3 dB above baseline as measured at relevant offsite noise receptors; and/or b. During periods of blasting, the dBA levels may be exceeded, as long as the other requirements in 4.4.2.4 are met.	⊕	Baseline ambient noise data indicates that the mine site is meeting SAN guidelines for commercial and residential areas, but there was no evidence of noise measurement during blasting. The baseline noise study indicates that the noise levels comply with the recommended levels. The site-level blasting plan was provided to confirm if the site is compliant with the recommended blasting noise levels.
4.4.2.3.	If screening or other credible information indicates that there are only industrial or commercial receptors that may be affected by noise from mining-related activities, then noise measured at the mine boundary or nearest industrial or commercial receptor shall not exceed 70 dBA.	☑	Data reviewed shows some exceedances of ambient noise at monitoring points around the site, but supports plausible reasons for these exceedances, and overall indicates that the mine site is meeting SAN guidelines for commercial and residential areas. The receiving environment was described in the noise report. The surrounding area is comprised of farmhouses and residential complexes in the town of Kathu. The site is below 70 and is at 55 dBa in the day and 45 dBa at night.
4.4.2.4.	If screening or other credible information indicates that noise or vibration from blasting activities may	☑	The Blasting Management Plan and Blast Analysis Reports (for each blast) are in place. Sishen conducts its blasting during the hours of 09:00 to 17:00, on

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	<p>impact human noise receptors, then blasting operations at mines shall be undertaken as follows:</p> <ul style="list-style-type: none"> a. A maximum level for air blast overpressure of 115 dB (Lin Peak) shall be exceeded on no more than 5 % of blasts over a 12-month period; b. Blasting shall only occur during the hours of 09:00 to 17:00, on traditionally normal working days; and c. Ground vibration (peak particle velocity) shall neither exceed 5 mm/second on 9 out of 10 consecutive blasts, nor exceed 10 mm/second at any time. 		traditionally normal working days, and ground vibrations are measured and recorded, meeting all requirements.
4.4.2.5.	<p>Mines may undertake blasting outside of the time restraints in 4.4.2.4.b when the operating company can demonstrate one or more of the following:</p> <ul style="list-style-type: none"> a. There are no nearby human noise receptors that will be impacted by blasting noise or vibration; b. Alternative hours are necessary and/or appropriate because of local, cultural or social norms; and/or c. Potentially affected human receptors have given voluntary approval for the expanded blasting hours. 	—	The Blasting Management Plan and Blast Analysis Reports (for each blast) are in place. Sishen conducts its blasting during the hours of 09:00 to 17:00, on traditionally normal working days, and ground vibrations are measured and recorded, meeting all requirements. As per IRMA guidance, because the site meets 4.4.2.4b this requirement is not relevant.
4.4.2.6.	<p>If a credible, supported complaint is made to the operating company that noise or vibration is adversely impacting human noise receptors, then the operating company shall consult with affected stakeholders to develop mitigation strategies or other proposed actions to resolve the complaint. Where complaints are not resolved then other options, including noise monitoring and the implementation of additional mitigation measures, shall be considered.</p>	☑	The site reported that no noise or vibration complaints from blasting have been received from neighbors in the past 2 years. A Blasting Management Plan was submitted as evidence. All noise and vibration-related complaints and their outcomes are documented. More stakeholder engagement is required, which Sishen is working on improving.
4.4.2.7.	<p>All noise- and vibration-related complaints and their outcomes shall be documented.</p>	☑	The site reported that no noise or vibration complaints from blasting have been received from neighbors in the past 2 years.




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4.4.3.1.	When stakeholders make a noise-related complaint, the operating company shall provide relevant noise data and information to them. Otherwise, noise data and information shall be made available to stakeholders upon request.	☑	The site reported that no noise or vibration complaints from blasting have been received from neighbors in the past 2 years.
Chapter 4.5—Greenhouse Gas Emissions			
4.5.1.1.	<p>Critical The operating company or its corporate owner shall develop and maintain a greenhouse gas or equivalent policy that commits the company to:</p> <ul style="list-style-type: none"> a. Identifying and measuring greenhouse gas emissions from the mining project; b. Identifying energy efficiency and greenhouse gas reduction opportunities across the mining project; c. Setting meaningful and achievable targets for reductions in absolute greenhouse gas emissions at the mine site level or on a corporate-wide basis; and d. Reviewing the policy at least every five years and revising as needed, such as if there are significant changes to mining-related activities, new technologies become available, or there are newly identified opportunities for reductions. 	☑	Anglo American has committed to becoming carbon neutral across their operations by 2040. Operational emissions reductions are to be achieved through renewable electricity, low carbon power sources, methane capture and energy efficiency. The Group Climate Change Policy includes a commitment to measuring and reporting on group-wide direct, indirect, and product-related emissions and regularly updating the board, investors, host governments and other relevant stakeholders on their progress in reducing carbon emissions and energy consumption.
4.5.2.1.	The operating company shall comply with emissions quantification methods described in a widely accepted reporting standard, such as the Greenhouse Gas Protocol Corporate Standard or the Global Reporting Initiative's GRI 305 emissions reporting standard.	☑	The Group GRI Standards Contents Index indicates that GRI 305, specifically GRI 305-1 through GRI 305-7, are identified as material within its sustainability reporting. Sustainability Data (2013-2020) shows that Scope 1 and 2 emissions have been quantified for Kumba Iron Ore. Anglo American specified CO2 Conversion and Energy Conversion Factors as set out in the Document Titled Rules of the S&SD Database Environment.
4.5.3.1.	The greenhouse gas policy shall be underpinned by a plan that details the actions that will be taken to achieve the targets set out in the policy.	☑	Specific objectives have been identified for the site to drive the site towards 2030 targets. PowerBI reporting was reviewed during the onsite assessment, which

Requirement #	Requirement Text	Rating	Basis for rating
			includes tracking of actions against greenhouse gas emission reduction objectives.
4.5.3.2.	The operating company shall demonstrate progress toward its greenhouse gas reduction targets.	✓	The site has a plan showing the trajectory of greenhouse gas emissions and intensity. Group sustainability reporting data shows a reduction in both Scope 1 and Scope 2 emissions for Kumba Iron Ore sites between 2019 and 2020. Site Power BI data shows over 70 initiatives identified to reduce greenhouse gas emissions since 2017, of which 55 have been approved and 40 have been completed.
4.5.3.3.	The operating company shall demonstrate that it has investigated greenhouse gas reduction strategies, and shall document the results of its investigations.	✓	The site's Energy and Greenhouse Gas Reduction Opportunity Review Report shows a comprehensive analysis of the site's energy consumption and greenhouse emissions and identifies 33 Near Term and Step Change projects aimed at energy and greenhouse reduction. Continual monitoring and reporting through Power-BI show greenhouse reduction initiatives in the Idea, Approved and Completed stages.
4.5.4.1.	The greenhouse gas policy shall be publicly available.	✓	The Anglo American Group Climate Change Policy 2020, the Anglo American Climate Change Report 2021 and the Anglo American Climate Change: Our Plans, Policies and Progress are available on the company's website.
4.5.4.2.	On an annual basis, the operating company or its corporate owner shall: <ul style="list-style-type: none"> a. Disclosure to IRMA auditors an accounting of its greenhouse gas emissions from the mining project; achievement of and/or progress towards mine-site-level greenhouse gas reduction targets; and efforts taken to reduce emissions from the mining project and mining-related activities; and b. Publicly report on mine-site-level or corporate-level greenhouse gas emissions, progress towards greenhouse gas reduction targets and efforts taken to reduce emissions. 	✓	The sustainability report does not show mine level data but does report on corporate level data and reduction measures. Site Power-BI data show achievement and progress towards mine-site-level greenhouse gas reduction targets.

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Chapter 4.6—Biodiversity, Ecosystem Services and Protected Areas			
4.6.1.1.	Biodiversity, ecosystem services and protected areas screening, assessment, management planning, implementation of mitigation measures, and monitoring shall be carried out and documented by competent professionals using appropriate methodologies.	✓	Qualifications and credentials of consultants are included in the reports reviewed, documenting competent professionals. Reports include details of the methodologies used to gather data, complete analysis, and develop conclusions and recommendations.
4.6.1.2.	Biodiversity, ecosystem services and protected areas screening, assessment, management planning, and the development of mitigation and monitoring plans shall include consultations with stakeholders, including, where relevant, affected communities and external experts.	✓	Based on project documentation reviewed, public participation processes were undertaken as a part of the Sishen Western Expansion Project: Phase 2, the relocation of infrastructure at Sishen Mine, and the Sishen Western Waste Rock Dump projects. Documentation reviewed included scoping reports, monitoring reports, biodiversity action plan, and an ecological assessment report. Evidence of notification of the public for the Western Waste Rock Dump project was also reviewed.
4.6.1.3.	Biodiversity, ecosystem services and protected areas impact assessments, management plans and monitoring data shall be publicly available, or made available to stakeholders upon request.	✓	Based on documentation reviewed, hard copies of the Sishen Western Expansion Project Scoping Document were made available at the Sishen Auditorium and the Kathu Library. An electronic copy of the Draft Scoping Report, along with other Sishen documentation, is currently posted on the Shangoni' Management Service's website (shangoni.co.za). These documents address impact assessments, management plans, and monitoring data for biodiversity, ecosystem services and protected areas.
4.6.2.1.	Critical New and existing mines shall carry out screening or an equivalent process to establish a preliminary understanding of the impacts on or risks to biodiversity, ecosystem services and protected areas from past and proposed mining-related activities.	⊘	The site has conducted screening and Environmental Impact Assessments for the location of the western rock dumps, recent relocation of the rail line and for the ongoing expansion of the pit. These assessments highlight sensitive ecosystems, including protected areas like the nearby Kathu Forest, the first protected forest in South Africa. Areas identified and classified include current mining, future expansion, and neighboring farms, residential and wildland areas. The site drafted a management plan in 2019, which includes identifying the need to implement biodiversity and socio-ecological research as a part of the research and monitoring objectives. Sishen is currently evaluating a proposal for research

Requirement #	Requirement Text	Rating	Basis for rating
			aimed at understanding the possible relationship between Camelthorn tree mortalities and mine-related activities.
4.6.2.2.	<p>Screening shall include identification and documentation of:</p> <ul style="list-style-type: none"> a. Boundaries of legally protected areas in the mine's actual or proposed area of influence, and the conservation values being protected in those areas; b. Boundaries of Key Biodiversity Areas (KBA) in the mine's actual or proposed area of influence, the important biodiversity values within those areas and the ecological processes and habitats supporting those values; c. Areas of modified habitat, natural habitat and critical habitat within the mine's proposed or actual area of influence, and the important biodiversity values (e.g., threatened and endangered species) present in the critical habitat areas; and d. Natural ecosystems or processes within the mine's proposed or actual area of influence that may or do provide provisioning, regulating, cultural and supporting ecosystem services. 	✔	The screening conducted for recent expansion projects included identification and documentation of sub-requirements (a) through (d).
4.6.3.1.	<p>When screening identifies protected areas or areas of potentially important global, national or local biodiversity or ecosystem services that have been or may be affected by mining-related activities (e.g., KBAs, critical habitat, threatened or endangered species), the operating company shall carry out an impact assessment that includes:</p> <ul style="list-style-type: none"> a. Establishment of baseline conditions of biodiversity, ecosystem services and, if relevant, conservation values (i.e., in protected areas) within the mine's proposed or actual area of influence; b. Identification of potentially significant direct, indirect and cumulative impacts of past and proposed mining-related activities on biodiversity, ecosystem services and, if relevant, on the 	⊕	Based on the documentation reviewed, several protected areas and sensitive sites have been identified on or adjacent to the mine site. This includes the Kathu Forest, located 9 miles from the mine site and identified as South Africa's first nationally protected forest, as well as land reserves purchased by the site to offset areas developed for mining purposes. Recent projects demonstrate actions to avoid potentially significant adverse impacts on biodiversity ahead of offsetting considerations. Partnerships for conservation are also being considered. However, the impact assessment has not included all the information in sub-requirements a, b, or c.

Requirement #	Requirement Text	Rating	Basis for rating
	<p>conservation values of protected areas throughout the mine's lifecycle;</p> <p>c. Evaluation of options to avoid potentially significant adverse impacts on biodiversity, ecosystem services and conservation values of protected areas, prioritizing avoidance of impacts on important biodiversity values and priority ecosystem services; evaluation of options to minimize potential impacts; evaluation of options to provide restoration for potential and actual impacts; and evaluation of options to offset significant residual impacts (see 4.6.4.1 and 4.6.4.2); and</p> <p>d. Identification and evaluation of opportunities for partnerships and additional conservation actions that could enhance the long-term sustainable management of protected areas and/or biodiversity and ecosystem services.</p>		
4.6.4.1.	<p>Critical Mitigation measures for new mines shall:</p> <p>a. Follow the mitigation hierarchy of:</p> <ol style="list-style-type: none"> i. Prioritizing the avoidance of impacts on important biodiversity values and priority ecosystem services and the ecological processes and habitats necessary to support them; ii. Where impacts are not avoidable, minimizing impacts to the extent possible; iii. Restoring biodiversity, ecosystem services and the ecological processes and habitats that support them; and iv. As a last resort, offsetting the residual impacts. <p>b. Prioritize avoidance of impacts on important biodiversity values and priority ecosystem services early in the project development process;</p> <p>c. Be designed and implemented to deliver at least no net loss, and preferably a net gain in important biodiversity values, and the ecological processes that support those values, on an appropriate</p>	—	Sishen Mine is an existing mine.

Requirement #	Requirement Text	Rating	Basis for rating
	geographic scale and in a manner that will be self-sustaining after mine closure.		
4.6.4.2.	<p>At existing mines:</p> <p>a. Where past adverse impacts on important biodiversity values and priority ecosystem services have been identified, the operating company shall design and implement onsite restoration strategies, and also, through consultation with stakeholders, design and implement additional conservation actions to support the enhancement of important biodiversity values and/or priority ecosystem services on an appropriate geographic scale; and</p> <p>b. If there is the potential for new impacts on important biodiversity values or priority ecosystem services (e.g., as a result of mine expansions, etc.), the operating company shall follow the mitigation hierarchy, prioritizing the avoidance of impacts on important biodiversity values or priority ecosystem services, but where residual impacts remain, shall apply offsets commensurate to the scale of the additional (new) impacts.</p>		<p>The site has demonstrated in some instances that where there is a potential for new impacts on important biodiversity values or priority ecosystem services, a hierarchy of mitigation is followed.</p> <p>However, offsetting has played a significant role in the site's mitigation of its impact on key areas of biodiversity. The site has not demonstrated an understanding of past adverse impacts on biodiversity values and priority ecosystem services and did not provide evidence of restoration strategies based on such understanding.</p>
4.6.4.3.	Offsetting, if required, shall be done in a manner that aligns with international best practice.		Design considerations for expansion projects include avoiding high-priority biodiversity areas identified by the site, where feasible. When offsetting has been required, the biodiversity offset areas acquired by the site have been officially recognized and approved by the regulator under the National Environmental Management Protected Areas Act (57 of 2003, National Environmental Management Act) as protected areas. A draft management plan is in place with research and monitoring objectives.
4.6.4.4.	<p>The operating company shall develop and implement a biodiversity management plan or equivalent that:</p> <p>a. Outlines specific objectives (e.g., no net loss/net gain, no additional loss) with measurable conservation outcomes, timelines, locations and activities that will be implemented to avoid, minimize, restore, enhance and, if necessary, offset</p>		The site is updating its Biodiversity Management Plan. An NPI and Biodiversity Action Plan has been developed to identify and track action items. However, only a few of these actions have been assigned to a responsible person, with support and budget identified.

Requirement #	Requirement Text	Rating	Basis for rating
	<p>adverse impacts on biodiversity and ecosystem services;</p> <p>b. Identifies key indicators, and ensures that there is an adequate baseline for the indicators to enable measurement of the effectiveness of mitigation activities over time;</p> <p>c. Provides a budget and financing plan to ensure that funding is available for effective mitigation.</p>		
4.6.4.5.	Biodiversity management shall include a process for updating or adapting the management plan if new information relating to biodiversity or ecosystem services becomes available during the mine lifecycle.	☑	The site is updating its Biodiversity Management Plan. The revised management plan is intended to incorporate current information relating to biodiversity and ecosystem services, including Camelthorn-related research.
4.6.5.1.	<p>An operating company shall not carry out new exploration or develop new mines in any legally protected area unless the applicable criteria in the remainder of this chapter are met, and additionally the company:</p> <p>a. Demonstrates that the proposed development in such areas is legally permitted;</p> <p>b. Consults with protected area sponsors, managers and relevant stakeholders on the proposed project;</p> <p>c. Conducts mining-related activities in a manner consistent with protected</p> <p>d. Implements additional conservation actions or programs to promote and enhance the conservation aims and/or effective management of the area.</p>	—	Sishen Mine is an existing mine that is not located within or adjacent to any legally protected areas.
4.6.5.2.	An operating company shall not carry out new mining-related activities in the following protected areas unless they meet 4.6.5.1.a through d, and an assessment, carried out or peer-reviewed by a reputable conservation organization and/or academic institution, demonstrates that mining-related activities will not damage the integrity of the	—	Sishen Mine is an existing mine that is not located within or adjacent to any legally protected areas, including International Union for Conservation of Nature category IV protected areas, Ramsar sites, or buffer zones of UNESCO biosphere reserves.

Requirement #	Requirement Text	Rating	Basis for rating
	<p>special values for which the area was designated or recognized.</p> <ul style="list-style-type: none"> • International Union for Conservation of Nature (IUCN) protected area management category IV protected areas; • Ramsar sites that are not IUCN protected area management categories I-III; and • Buffer zones of UNESCO biosphere reserves. 		
4.6.5.3.	<p>Critical IRMA will not certify new mines that are developed in or that adversely affect the following protected areas:</p> <ul style="list-style-type: none"> • World Heritage Sites, and areas on a State Party's official Tentative List for World Heritage Site Inscription; • IUCN protected area management categories I-III; • Core areas of UNESCO biosphere reserves. 	—	Sishen Mine is an existing mine and is not located within or near any World Heritage Sites, International Union for Conservation of Nature protected areas, or core areas of UNESCO biosphere reserves.
4.6.5.4.	<p>Critical An existing mine located entirely or partially in a protected area listed in 4.6.5.3 shall demonstrate that:</p> <ol style="list-style-type: none"> a. The mine was developed prior to the area's official designation; b. Management plans have been developed and are being implemented to ensure that activities during the remaining mine lifecycle will not permanently and materially damage the integrity of the special values for which the area was designated or recognized; and c. The operating company collaborates with relevant management authorities to integrate the mine's management strategies into the protected area's management plan. 	—	Sishen mine is not located in any protected areas, including World Heritage Sites, International Union for Conservation of Nature protected areas, or core areas of UNESCO biosphere reserves.
4.6.6.1.	The operating company shall develop and implement a program to monitor the implementation of its protected areas and/or	☑	Sishen Mine is required to implement a biodiversity monitoring program to assess changes in the ecosystem in the area around the mine. The mine employs a service provider on a 5-year contract to help develop and implement the

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	biodiversity and ecosystem services management plan(s) throughout the mine lifecycle.		biodiversity and rehabilitation monitoring plans. Monitoring reports provided by the consultant include a Declaration of Consultant Independence.
4.6.6.2.	Monitoring of key biodiversity or other indicators shall occur with sufficient detail and frequency to enable evaluation of the effectiveness of mitigation strategies and progress toward the objectives of at least no net loss or net gain in biodiversity and ecosystem services over time.	⊕	The site has developed and implemented a Biodiversity Monitoring Protocol that has been revised and updated several times in the past few years. The protocol establishes clear and specific monitoring objectives and targets, including biodiversity monitoring and management to achieve a long-term net positive impact. It is unclear to the extent that corrective actions are identified if monitoring of objectives identifies gaps.
4.6.6.3.	If monitoring reveals that the operating company's protected areas and/or biodiversity and ecosystem services objectives are not being achieved as expected, the operating company shall define and implement timely and effective corrective action in consultation with relevant stakeholders.	⊗	The mine site has the beginnings of a framework in place, including the net positive impact and Biodiversity Action Plan, and Kumba Land Management Plan. Both will need to be integrated with a corrective action and external communication process when monitoring identifies that objectives are not being achieved.
4.6.6.4.	The findings of monitoring programs shall be subject to independent review.	⊙	Monitoring reports and supporting documentation from 2018 to 2020 have been prepared by Endemic Vision. In many of the reports, a "Declaration of Consultant Independence" is provided, along with team member credentials, including details of professional registration.
Chapter 4.7—Cyanide Management			
	Chapter Not Relevant	—	The mining project does not use, store, produce, or transport cyanide.

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Chapter 4.8—Mercury Management			
	Chapter Not Relevant	—	The mine does not use an autoclave, roaster, carbon kiln, refining furnace or other thermal process that could lead to significant emissions of mercury (from heating ores or fuels on site).

APPENDIX B–Corrective Action Plan

Chapter Number	Topic	Requirement Number	Requirement Text	Rating	Auditors feedback	Action Plan
1.2	Community and Stakeholder Engagement	1.2.2.2.	<p>The operating company shall foster two-way dialogue and meaningful engagement with stakeholders by:</p> <ul style="list-style-type: none"> a. Providing relevant information to stakeholders in a timely manner; b. Including participation by site management and subject-matter experts when addressing concerns of significance to stakeholders; c. Engaging in a manner that is respectful, and free from manipulation, interference, coercion or intimidation; d. Soliciting feedback from stakeholders on issues relevant to them; and e. Providing stakeholders with feedback on how the company has taken their input into account. 	Substantially Meets	<p>The site has in place a Stakeholder Engagement Plan. The Stakeholder Engagement Plan, together with other evidence presented indicates that regular timely engagement is taking place.</p> <p>A. Evidence provided demonstrates attempts to engage stakeholders regularly and provide timely information (e.g., regular blasting notifications); however, some stakeholders expressed that the Mine is slow to provide feedback on issues raised.</p> <p>B. During the annual stakeholder day presentations, cross functional teams, and Small and Medium Sized Enterprise share feedback with stakeholders to address specific topics.</p> <p>C. Engagement is primarily conducted in English; however, site representatives noted that required translation services are provided. There was no evidence of manipulation or interference in the engagement process.</p> <p>D. The stakeholder perception survey, scope of work and previous surveys show the site is soliciting feedback from stakeholders.</p> <p>E. During interviews, stakeholders noted that they did not know how, or whether, their input is taken into consideration by the mine, and there was a sense that some stakeholders felt they were not being heard.</p>	<p>Sishen Mine fosters two way dialogue and meaningful engagement with stakeholders in a number of ways. Sishen Mine will look to ensure that feedback from stakeholders and the company are recorded in the minutes of meetings held to ensure that action is undertaken based on stakeholder input, and agreements in terms of point of (e) with defined timelines. These actions will be captured in our management systems action tracker module</p>

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1.3	Human Rights Due Diligence	1.3.3.3.	<p>Responding to actual human rights impacts related to the mining project:</p> <p>a. If the operating company determines that it has caused an actual human rights impact, the company shall:</p> <p style="padding-left: 20px;">i. Cease or change the activity responsible for the impact; and</p> <p style="padding-left: 20px;">ii. In a timely manner, develop mitigation strategies and remediation in collaboration with affected rights holders. If mutually acceptable remedies cannot be found through dialogue, the operating company shall attempt to reach agreement through an independent, third-party mediator or another means mutually acceptable to affected rights holders;</p> <p>b. If the operating company determines that it has contributed to an actual human rights impact, the company shall cease or change any activities that are contributing to the impact, mitigate and remediate impacts to the extent of its contribution, use its leverage to influence other contributing parties to cease or change their activities, and mitigate and remediate the remaining impact;</p> <p>c. If the operating company determines that it is linked to an actual human rights impact through a business relationship the company shall use its leverage to prevent or mitigate the impact from continuing</p>	Substantially Meets	<p>The Due Diligence Report, Social Management Plan and updated Social and Human Rights Impact and Risk Analysis indicate several actual and potential human rights impacts and measures to mitigate these impacts. Induction training, anti-harassment training, a grievance mechanism and register provided indicate specific efforts to address potential human rights infringements and prevent future infringement. A progress report on social-labor initiatives touches on potential human rights issues to which the mine may contribute (e.g., lack of housing). The updated Baseline and Human Rights Due Diligence Scope of Work indicates ongoing efforts to address human rights impacts, including stakeholder participation. Community and worker discussions raise issues about the effectiveness of mitigations to date.</p>	<p>Sishen Mine will look towards improving communication around human rights risks, in line with incidents which may arise from the mine's impact. Practically, this could take the form of case studies, which detail the incident, the action taken, mitigation strategies developed and implemented, and the link towards potential human rights violations. Sishen Mine will also, where applicable, include the mitigation measures and human right impacts identified in the Social Management Plan.</p>

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			<p>or recurring; and</p> <p>d. The operating company shall cooperate with other legitimate processes such as judicial or State-based investigations or proceedings related to human rights impacts that the operating company caused, contributed to, or was directly linked to through its business relationships.</p>			
1.4	Complaints and Grievance Mechanism and Access to Remedy	1.4.1.1.	The operating company shall ensure that stakeholders, including affected community members and rights holders (hereafter referred to collectively as “stakeholders”) have access to an operational-level mechanism that allows them to raise and seek resolution or remedy for the range of complaints and grievances that may occur in relation to the company and its mining-related activities.	Substantially Meets	The site is guided by corporate level policies that require Anglo American mines to develop and implement an external grievance mechanism. The site has in place a Social Incidents and Grievance Procedure, implemented in 2019 and updated in 2020. Evidence provided shows that information around how to access the grievance mechanism is broadly shared. Stakeholders, however, reported that the Engage App is not accessible to all stakeholders as many people do not have smartphones, access to Wi-Fi or data.	Sishen Mine will review the Incidents and grievance procedure to address the Engage-App shortcomings identified.
2.5	Emergency Preparedness and Response	2.5.1.1.	All operations related to the mining project shall have an emergency response plan conforming to the guidelines set forth in United Nations Environment Programme, Awareness and Preparedness for Emergencies at the Local Level (APELL) for Mining.	Substantially Meets	The site has developed an Emergency Preparedness and Response Plan and an Emergency Preparedness Response Plan specific to the Tailings Facility. Recent Agricultural Forum Meeting Minutes show that the Emergency Preparedness Response Plan is discussed with neighboring landowners and stakeholders. Emergency Response Plans are prepared in conformance with the Anglo American Social Way. Review of the Emergency Response Plan found conformance to the guidelines set forth in the United Nations Environment Program, Awareness and Preparedness for	Sishen Mine will update the Emergency Preparedness and Response Plan, and emergency procedures to include the suggested content or equivalents for the UN APELL for Mining.

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					Emergencies at the Local Level (UNEP APELL). However, it is unclear to what extent, if any, the process outlined in the United Nations Environment Program, Awareness and Preparedness for Emergencies at the Local Level (UNEP APELL) has been reviewed by the site.	
2.6		2.6.4.1	Financial surety instruments shall be in place for mine closure and post-closure	Substantially Meets	A percentage of the closure liability provision for the site falls under the Kumba Rehabilitation Trust. The site has been contributing to the trust since August 1993. The value of the Kumba Rehabilitation Trust at a point in time is shown in the trustees' documentation. The other part of the liability provision for the site is provided for in terms of bank guarantees. The amounts for both funds are updated annually. During the follow-up assessment, the site did not provide any further evidence of the instruments applied to calculate the post-closure costs.	Sishen Mine will provide the methodology used to calculate the post-closure cost in the follow-up assessment.
3.1	Fair Labor and Terms of Work	3.1.2.1	The operating company shall respect the rights of workers to freedom of association and collective bargaining.	Substantially Meets	Policies and procedures reference the International Labour Organization (ILO) core labor rights, including the freedom of association and collective bargaining. agreement between Sishen mine and the Association of Mineworkers & Construction union. This provided evidence of implementation. Induction includes human rights and antibullying, harassment and victimization training. Interviews with operating company employees confirm that they have been informed about union membership by human resources and union representatives during induction. A union membership application was provided. The process is voluntary. However, interviews with contracted workers	Pending receipt

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					indicate that their employers may strongly discourage efforts to participate in unionization.	
3.1	Fair Labor and Terms of Work	3.1.3.3	The operating company shall take measures to prevent and address harassment, intimidation, and/or exploitation, especially in regard to female workers.	Substantially Meets	The Sexual Harassment Policy and a workplace procedure identifying the principles and procedures to be followed are in place. bullying, harassment, and victimization training is compulsory for all employees. Harassment prohibition is included during induction training. Two discrimination and harassment case summaries, including the resolution action taken, were provided. Interviews with managers and workers confirm a zero tolerance for harassment. Worker examples were provided of how the grievance process was available and effectively used. Interviews with contracted workers did not indicate specific instances of harassment, intimidation or exploitation of women, but did highlight a tendency for contracted workers to refrain from reporting grievances through available mechanisms due to perceived inaction.	Pending receipt
3.2	Occupational Health and Safety	3.2.4.1.	<p>The operating company shall implement measures to protect the safety and health of workers including:</p> <p>a. Informing workers, in a comprehensible manner, of the hazards associated with their work, the health risks involved and relevant preventive and protective measures;</p> <p>b. Providing and maintaining, at no cost to workers, suitable protective equipment and clothing where exposure to adverse conditions or adequate protection against risk of</p>	Substantially Meets	<p>The site's Operational Risk Management Program (ORMP) establishes how workers are to be informed of the hazards, health risks and preventative and protective measures associated with their work. However, the site tour identified that job risk assessments were not updated and made available to workers in all instances. During the follow-up assessment, corrective actions conducted by the site were reviewed, including examples of job risk assessment task lists. Out-of-date job risk assessments have been reviewed and updated within the CWS Tracking Tool. The site has established a detailed</p>	<p>Sishen Mine has implemented numerous measures to protect the health and safety of workers, including individual requirements. Specific measures to address point (a) and (b) of the requirement may include:</p> <ol style="list-style-type: none"> 1. Updating Governance and training documentation, 2. Monitoring and measuring the number of visible felt leadership hours in the field, to ensure adequate oversight of work being undertaken.

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			<p>accident or injury to health cannot be ensured by other means;</p> <p>c. Providing workers who have suffered from an injury or illness at the workplace with first aid, and, if necessary, prompt transportation from the workplace and access to appropriate medical facilities;</p> <p>d. Providing, at no cost to workers, training/education and retraining programs and comprehensible instructions on safety and health matters as well as on the work assigned;</p> <p>e. Providing adequate supervision and control on each shift; and</p> <p>f. If relevant, establishing a system to identify and track at any time the probable locations of all persons who are underground.</p>		<p>personal protective equipment specification, procedure, and standard. However, respirator fit testing is currently not a part of this program, and no subsequent documentation was submitted to prove that specific training is being conducted on the fitment of respirators. While on-site, tours were conducted of the emergency response and occupational health and safety facilities available to all employees, and contracted services for advanced patient transport were confirmed. Health and safety training programs were sampled, and adequate supervision of workers was observed during the site tours.</p>	

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3.3	Community Health and Safety	3.3.1.1.	<p>The operating company shall carry out a scoping exercise to identify significant potential risks and impacts to community health and safety from mining-related activities. At minimum, the following sources of potential risks and impacts to community health and/or safety shall be considered:</p> <ul style="list-style-type: none"> a. General mining operations; b. Operation of mine-related equipment or vehicles on public roads; c. Operational accidents; d. Failure of structural elements such as tailings dams, impoundments, waste rock dumps (see also IRMA Chapter 4.1); e. Mining-related impacts on priority ecosystem services (see also IRMA Chapter 4.6); f. Mining-related effects on community demographics, including in-migration of mine workers and others; g. Mining-related impacts on availability of services; h. Hazardous materials and substances that may be released as a result of mining-related activities (see also IRMA Chapter 4.1); and i. Increased prevalence of water- 	Substantially Meets	Documents such as the baseline Workplace Risk Assessment and Control identify sources of risks and impacts associated with sources listed in "a" through "i" of this requirement. The site is in the process of improving the identification of risks and impacts to the community through a scoping research project. However, the on-site assessment found limited evidence of the assessment of mining-related impacts on priority ecosystem services, in particular the impact of dewatering in the Kathu Forest.	As part of the community health and safety, Sishen mine will review the baseline workplace risk assessment to include the mining related impacts on priority ecosystems.

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			borne, water-based, water-related, and vector-borne diseases, and communicable and sexually transmitted diseases (e.g., HIV/AIDs, tuberculosis, malaria, Ebola virus disease) that could occur as a result of the mining project.			
4.1	Waste and Materials Management	4.1.4.1	A risk-based approach to mine waste assessment and management shall be implemented that includes: a. Identification of potential chemical risks (see 4.1.3.2.e) and physical risks (see 4.1.3.3) during the project conception and planning phase of the mine life cycle; b. A rigorous risk assessment to evaluate the potential impacts of mine waste facilities on health, safety, environment and communities early in the life cycle; c. Updating of risk assessments at a frequency commensurate with each facility's risk profile, over the course of the facility's life cycle; and d. Documented risk assessment reports, updated when risks assessments are revised (as per 4.1.4.1.c).	Substantially Meets	<p>The site has developed and implemented a procedure on risk management for the mine. Independent risk assessments are conducted and updated for the tailings facilities. However, the onsite assessment identified that no risk assessments were conducted for any of the other identified waste facilities at the mine.</p> <p>At the follow-up audit, a baseline risk assessment was made available for review and includes environmental, chemical, social, health and safety and physical risks. The "BASELINE RISK ASSESSMENT – Waste & Water" was made available for review.</p> <p>All risks identified in the baseline risk assessment as having a potential impact rating of 5 (i.e., major risks) are taken through issue-based risk assessment processes followed by bowtie analyses. The bowtie analyses process identifies</p>	Sishen Mine will review the procedure to include the frequency of review and the process of updating the risk register.

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					critical controls and other controls that are required to prevent the priority unwanted events. Third-party assessments of waste facilities were available for review. The frequency of review and the process for updating the risk registers was not clear from the documentation supplied.	
4.1	Waste and Materials Management	4.1.5.1.	Mine waste facility design and mitigation of identified risks shall be consistent with best available technologies (BAT) and best available/applicable practices (BAP).	Substantially Meets	<p>The site has considered the best available technologies (BAT) and best available/applicable practices (BAP) in the design of tailings facilities on-site. However, these considerations have not been extended to other waste types. The site is conducting monitoring and updating of risk assessments of tailings facilities, which also inform management at review meetings. The same principles do not apply to all other waste facilities on-site.</p> <p>No further evidence was submitted to show that the site considers the same criteria for all the other on-site waste facilities.</p>	<p>Sishen Mine has implemented the Group-Level standard for Mineral Residue Facilities and Water Management Structure Standard which indicates that the mine is implementing the standard for the design and mitigation of risks at site level. By 2025, Sishen Mine will be expected to comply with the Global Industry Standard on Tailings Management (GISTM) which is considered to be as the best available practice (BAP) and best available technology (BAT) to design and mitigate risks associated with tailings facilities. With regard to other waste facilities, an internal investigation and gap analysis against BAT and BAP for these facilities will be undertaken</p>

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4.1	Waste and Materials Management	4.1.5.6	<p>On a regular basis, the operating company shall evaluate the performance of mine waste facilities to:</p> <ul style="list-style-type: none"> a. Assess whether performance objectives are being met (see 4.1.4.2.a and 4.1.5.5); b. Assess the effectiveness of risk management measures, including critical controls (see 4.1.5.3); c. Inform updates to the risk management process (see 4.1.4.1.c) and the OMS (see 4.1.5.7); and <p>Inform the management review to facilitate continual improvement (see 4.1.5.8).</p>	Substantially Meets	<p>The site is conducting monitoring and updating of risk assessments of tailings facilities which also informs management at review meetings. According to the risk assessment, the tailings facilities, are regarded as the highest risk of all the mine waste facilities.</p> <p>The mine appointed a specialist to assist with developing performance objectives for the mine waste facilities. The mine has scheduled inspections to be performed by internal and external experts.</p> <p>No further evidence was submitted to show that the site considers the same criteria for all the other onsite waste facilities.</p>	Pending receipt

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4.2	Water Management	4.2.4.4.	<p>The operating company shall develop and implement an adaptive management plan for water that:</p> <p>a. Outlines planned actions to mitigate predicted impacts on current and future uses of water and natural resources from changes in surface water and groundwater quality and quantity related to the mining project; and</p> <p>b. Specifies adaptive management actions that will occur if certain outcomes (e.g., specific impacts), indicators, thresholds or trigger levels are reached, and timelines for their completion.</p>	Substantially Meets	<p>An Adaptive Water Management Standard has been developed. However, at the time of the onsite audit, it was still in draft format. The site intends to develop the plan according to the standard once the standard has been approved.</p> <p>During the follow-up assessment the audit team reviewed the additional information provided. The evidence reviewed included the "Kumba Iron Ore Adaptive Water Management Standard", the "Water Management Plan", etc.. Water quality management within the Water Management Plan includes information on the required elements of water quality monitoring, (e.g. potable, surface, and ground water). Monthly, quarterly and annual reporting frequencies have been established. Trigger action response plan (TARP) is referenced under Tailings Water Management but is focused on dam wall failure or loss of containment. Evidence provided for Kolomela included discussion of Site-Specific-Trigger-Values (SSTVs). Additional supporting documentation was presented to the audit team, explaining the relationship between the Water Management Plan, the Kumba Iron Ore Adaptive Water Management Standard, and the Integrated Water and Waste Management Plan. Collectively these plans outline adaptive management actions to mitigate impacts on current and future uses of water and response to changes in water quality and quantity as certain indicators (SSTVs) are reached. The effective implementation of these three key plans for adaptive water management will be an area of focus during the surveillance audit.</p>	<p>Kumba has developed an adaptive water management standard with specific actions to address the finding include:</p> <p>Annual review of the effectiveness of the water management measures in preventing negative changes in the two water quality objectives established in the plan. This can include the update of monitoring points and the TARP based on the SSTVs</p>

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4.6	Biodiversity, Ecosystem Services and Protected Areas	4.6.2.1	New and existing mines shall carry out screening or an equivalent process to establish a preliminary understanding of the impacts on or risks to biodiversity, ecosystem services and protected areas from past and proposed mining-related activities.	Substantially Meets	The site has conducted screening and Environmental Impact Assessments for the location of the western rock dumps, recent relocation of the rail line and for the ongoing expansion of the pit. These assessments highlight sensitive ecosystems, including protected areas like the nearby Kathu Forest, the first protected forest in South Africa. Areas identified and classified include current mining, future expansion, and neighboring farms, residential and wildland areas. The site drafted a management plan in 2019, which includes identifying the need to implement biodiversity and socio-ecological research as a part of the research and monitoring objectives. Sishen is currently evaluating a proposal for research aimed at understanding the possible relationship between Camelthorn tree mortalities and mine-related activities.	Sishen Mine will undertake a study aimed at understanding the possible relationship between Camelthorn tree mortalities and mine related activities.

References

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