

# Definitions for key sustainability performance data for assurance

## Emissions



<b>Total CO<sub>2</sub>-equivalent emissions and net emissions reduction from 2016 baseline (Scope 1 and 2)</b>	<b>ktCO<sub>2</sub>e and percentage</b>	<p>A measure used to compare emissions from various greenhouse gases based on their global warming potential.</p> <p><b>Measurement:</b> The sum of CO<sub>2</sub> emissions (in tonnes) from:</p> <ul style="list-style-type: none"> <li>• <b>Direct Scope 1:</b> Fuel purchased and owned by sites (gas, diesel, petrol, LPG and oxyacetylene) and used on-site in stationary and mobile equipment</li> <li>• <b>Indirect Scope 2:</b> Electricity purchased from third parties (grid or independent power producers) – excluding instances where gas/fuel is owned by site</li> </ul> <p>These indirect GHG emissions are within an organisations value chain, both upstream and downstream.</p>
<b>Total CO<sub>2</sub>-equivalent emissions, Scope 3</b>	<b>ktCO<sub>2</sub>e</b>	<ul style="list-style-type: none"> <li>• <b>Indirect Scope 3:</b> Indirect greenhouse gas (GHG) emissions other than Scope 2 emissions, resulting from activities from assets not owned or controlled by the reporting organisation.</li> </ul> <p>These indirect GHG emissions are within an organisations value chain, both upstream and downstream.</p>
<b>Total CO<sub>2</sub>-equivalent emissions avoided from initiatives</b>	<b>ktCO<sub>2</sub>e</b>	<p>Amount of GHG emissions reductions achieved as a direct result of initiatives to reduce emissions or from energy savings through initiatives.</p>
<b>Reduction of absolute scope 1 and 2 carbon emissions (carbon abatement) through renewable projects</b>	<b>ktCO<sub>2</sub>e</b>	<p>A measure used to compare emissions from various greenhouse gases based on their global warming potential.</p> <p><b>Measurement:</b> The sum of CO<sub>2</sub> emissions (in tonnes) from:</p> <p><b>Direct Scope 1:</b> Fuel purchased and owned by sites (gas, diesel, petrol, LPG and oxyacetylene) and used on-site in stationary and mobile equipment</p> <p><b>Indirect Scope 2:</b> Electricity purchased from third parties (grid or independent power producers) - excluding instances where gas/fuel is owned by site.</p>



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## Energy



<b>Energy consumption</b>	<b>PJ</b>	Total energy consumption within the organisation = Non-renewable fuel consumed + Renewable electricity consumed + Non-renewable electricity consumed.
<b>Total energy saved from initiatives</b>	<b>PJ</b>	The amount of energy saved by implementing energy conservation measures and energy efficiency initiatives.

## Environmental



<b>Number of environmental incidents – Level 1-2 and serious incidents (Level 3-5)</b>	<b>Number of incidents</b>	<p>An environmental incident is an unplanned, unauthorised and unwanted event that may result in an adverse environmental impact. Environmental incidents are classified by type and severity in accordance with the Gold Fields Group Environmental Incident Reporting and Classification Guideline.</p> <p>Environmental Incidents are classified according to severity on a scale of Level 0 - 5:</p> <ul style="list-style-type: none"> <li>• Level 0: Non-conformance to internal procedure or processes</li> <li>• Level 1 and 2: Environmental incident that may results in no or a limited environmental impact that does not exceed compliance obligations</li> <li>• Level 3: Environmental incidents that results in an impact to the environment beyond the immediate approved disturbance footprint</li> <li>• Level 4/5: Significant or Catastrophic environmental incident that results in significant environmental, and other, impacts</li> </ul> <p>Environmental incidents are classified by type as:</p> <ul style="list-style-type: none"> <li>• Unplanned, unauthorised or non-compliant release to air (including noxious gases and dust)</li> <li>• Unplanned, unauthorised or non-compliant loss of containment (including but not limited to releases to surface and / or groundwater)</li> <li>• Unplanned, unauthorised or non-compliant land or heritage site disturbance</li> <li>• Unplanned, unauthorised or non-compliant impact on fauna and flora</li> <li>• Unplanned, unauthorised or non-compliant waste management or disposal</li> <li>• Unplanned, unauthorised or non-compliant noise emission</li> <li>• Unplanned, unauthorised or non-compliant air blast overpressure or ground vibration</li> </ul>
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## Water



<b>Total water withdrawal</b>	<b>GL</b>	Water withdrawal – Water from all sources (including surface water, groundwater, rainwater and municipal water supply)
<b>Total water withdrawal per tonnes processed</b>	<b>L/tonne</b>	Total water withdrawal / tonnes of ore bearing material processed
<b>Freshwater withdrawal</b> <b>(&lt;500 mg/L Total Dissolved Solids and pH: 4 – 10)</b>	<b>GL</b>	Freshwater withdrawal – Freshwater from all sources (including surface water, groundwater and rainwater)
<b>Percentage of water recycled<sup>1</sup> or reused<sup>2</sup></b>	<b>%</b>	Total water recycled or reused / operational water use <sup>3</sup> <sup>1</sup> This refers to processing used water or wastewater. The water or wastewater is treated before being recycled <sup>2</sup> This refers to water or wastewater that is reused without retreatment at the same facility or at another of the reporting organisations facilities <sup>3</sup> Total withdrawal + Total Recycled + Total Reused
<b>Total water consumed (withdrawal – discharge)</b>	<b>GL</b>	Consumption: Describes the volume of water used by the site and not returned to the water environment or a third party. Consumption = Total water withdrawal less discharge
<b>Total water discharged</b>	<b>GL</b>	Discharge: The volume of water removed from a site to the water environment and/or a third party, which was originally taken with the intention of use.



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# Definitions for key sustainability performance data for assurance

## Health



<b>Number of cases of Silicosis reported</b>	<b>Number of cases</b>	Nodulation in the lungs (seen on chest X-ray) resulting from silica dust inhalation. <b>Measurement:</b> Number of cases reported for compensation
<b>Number of cases of Noise Induced Hearing Loss reported (NIHL)</b>	<b>Number of cases</b>	Damage to the nerve that assists in hearing as a result of prolonged exposure to high noise levels.  The Standard D32 Threshold Shift (STS) should not exceed 25dB from the baseline when averaged at 2, 3 and 4kHz in one or both ears and personal hearing loss of 10% from the baseline. <b>Measurement:</b> Number of cases reported for compensation
<b>Number of cases of Malaria tested positive per annum (Ghana only)</b>	<b>Number of positive cases</b>	An intermittent and remittent fever caused by a protozoan parasite, which invades the red blood cells and is transmitted by mosquitoes in many tropical and subtropical regions <b>Measurement:</b> Number of cases tested positive
<b>Number of South African and Ghanaian employees in the HAART programme</b>	<b>Number of employees</b>	Highly Active Anti-Retroviral Therapy (HAART) for those with HIV/Aids <b>Measurement:</b> Number of HIV-positive employees who receive HAART (cumulative)
<b>Percentage of South African and Ghanaian workforce on the voluntary counselling and testing (VCT) programme</b>	<b>Percentage of workforce</b>	The process by which an individual chooses to receive counselling enabling them to make an informed choice about getting tested for HIV. <b>Measurement:</b> Number of employees and contractors who have participated in VCT and who, through this process, have established their HIV status



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# Definitions for key sustainability performance data for assurance

## Safety



<b>Total recordable injury frequency rate (TRIFR): Employees, Contractors, Total</b>	<b>Rate</b>	<p>Frequency rate of Total Recordable Injuries (including all fatalities, lost time injuries, restricted work injuries and medically treated injuries)</p> <p><b>Measurement:</b> Total Recordable Injuries x 1,000,000 / number of hours worked</p>
<b>Serious injuries</b>	<b>Number of serious injuries</b>	<p>A serious injury is an injury that incurs 14 or more days lost and results in:</p> <ul style="list-style-type: none"> <li>• A fracture of any bone (excluding hairline fractures and fractures of fingers, toes or nose)</li> <li>• Internal haemorrhage</li> <li>• Head trauma (including concussion, loss of consciousness) requiring hospitalisation</li> <li>• Loss of all or part of a limb (excluding bone dressing to facilitate medical treatment of injured fingers and toes)</li> <li>• Permanent loss of function and/or permanent disability such as hearing loss or damage to lung function</li> <li>• Permanent disfigurement where the injury has resulted in the appearance of a person being deeply and persistently harmed medically and that is likely to lead to psychosocial problems</li> </ul>
<b>Lost time injury frequency rate (LTIFR): Employees, Contractors, Total</b>	<b>Rate</b>	<p>A Lost Time Injury (LTI) is an injury sustained by a worker whilst at work which incapacitates that worker for a period of one or more calendar days.</p> <p>Lost time Injury Frequency Rate (LTIFR) = Lost-Time Injuries x 1,000,000 / number of hours worked</p>
<b>Near miss incidents</b>	<b>Number of near miss incidents</b>	<p>A 'near miss' is any workplace related incident that did not result in any injury or illness but had the potential to do so.</p>



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# Definitions for key sustainability performance data for assurance

## Social



<b>Total socio-economic development (SED) spend</b>	<b>US\$</b>	<p>Payments made to communities and community investments that are not inherent to the operation's functioning. These may include payments related to infrastructure, health and wellbeing, education and training, local environment, scholarships and donations.</p> <p><b>Measurement:</b> US Dollars</p>
<b>Host community workforce</b>	<b>Number (employees + contractors)</b>	<p>Host communities are defined as a group of people, identified by each mining operation, for the purpose of securing our mining licenses – both legal and social. The communities are directly affected by and have an expectation regarding our activities. They typically include the communities nearest our operations.</p> <p>Host community workforce comprises total host community employees and host community contractors. Host community employment data excludes our corporate and other country offices as well as projects.</p>
<b>Percentage of host community workforce employment of total workforce</b>	<b>Percentage</b>	Number of host community workforce (as defined above) as a percentage of the total workforce at an operation.
<b>Percentage of women employees' representation in total employee workforce</b>	<b>Percentage</b>	<p>Reported as the total percentage of female employees in the business.</p> <p>Female representation is tracked using total women percentage, total women in management (DL, DU, EL, EU, F and G band) and total women in core roles.</p>
<b>Host community procurement spend</b>	<b>US\$</b>	<p>Host community procurement involves the purchasing of goods and services by the mine from approved host community enterprises.</p> <p>Host Community Procurement spend refers to procurement spending by the operation for services or deliverables procured from businesses that provide direct socio-economic benefit to our Host Community (defined above), e.g. jobs (direct impact/measure) and local community sourcing (indirect impact/output measure).</p> <p>Definitions to classify a Mine supplier as a host community supplier is defined by each country as specified in the Host Community Procurement Spend and Job Creation Guidance V1.4.</p>
<b>Host community employee wages</b>	<b>US\$D</b>	Wage bill for host community employees



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# Definitions for key sustainability performance data for assurance

## Social



<b>Group Host Community / Host Community value creation as a % of total national value creation</b>	<b>USD Percentage</b>	<p>Host community value creation is the total investment in host community, which is made up of procurement spend, host community employee wages and SED spend.</p> <p>Total value creation is in accordance with World Gold Council guidelines and comprises all payments to stakeholders in a country. It includes payments to stakeholders including governments (royalties and taxes), business/suppliers (goods and services), capital providers (dividends and interest), employees (salaries and wages) and communities (community investments) by Gold Fields.</p> <p>Host community value creation as a percentage of national value creation</p>
<b>Percentage of host community procurement spend as a % of total procurement spend</b>	<b>Percentage</b>	<p>Host community procurement as a percentage of total procurement spend by a mine</p> <p><math>(\text{Host Community Procurement Spend} / \text{Total Procurement Spend}) \times 100\%</math></p>



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# *Definitions* for key sustainability performance data for assurance

## Mining Charter



The South African Mining Charter (Broad-Based Socio-Economic Empowerment Charter for the Mining and Minerals Industry, 2018) can be found at: [https://www.gov.za/sites/default/files/gcis\\_document/201809/41934gon1002.pdf](https://www.gov.za/sites/default/files/gcis_document/201809/41934gon1002.pdf)



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