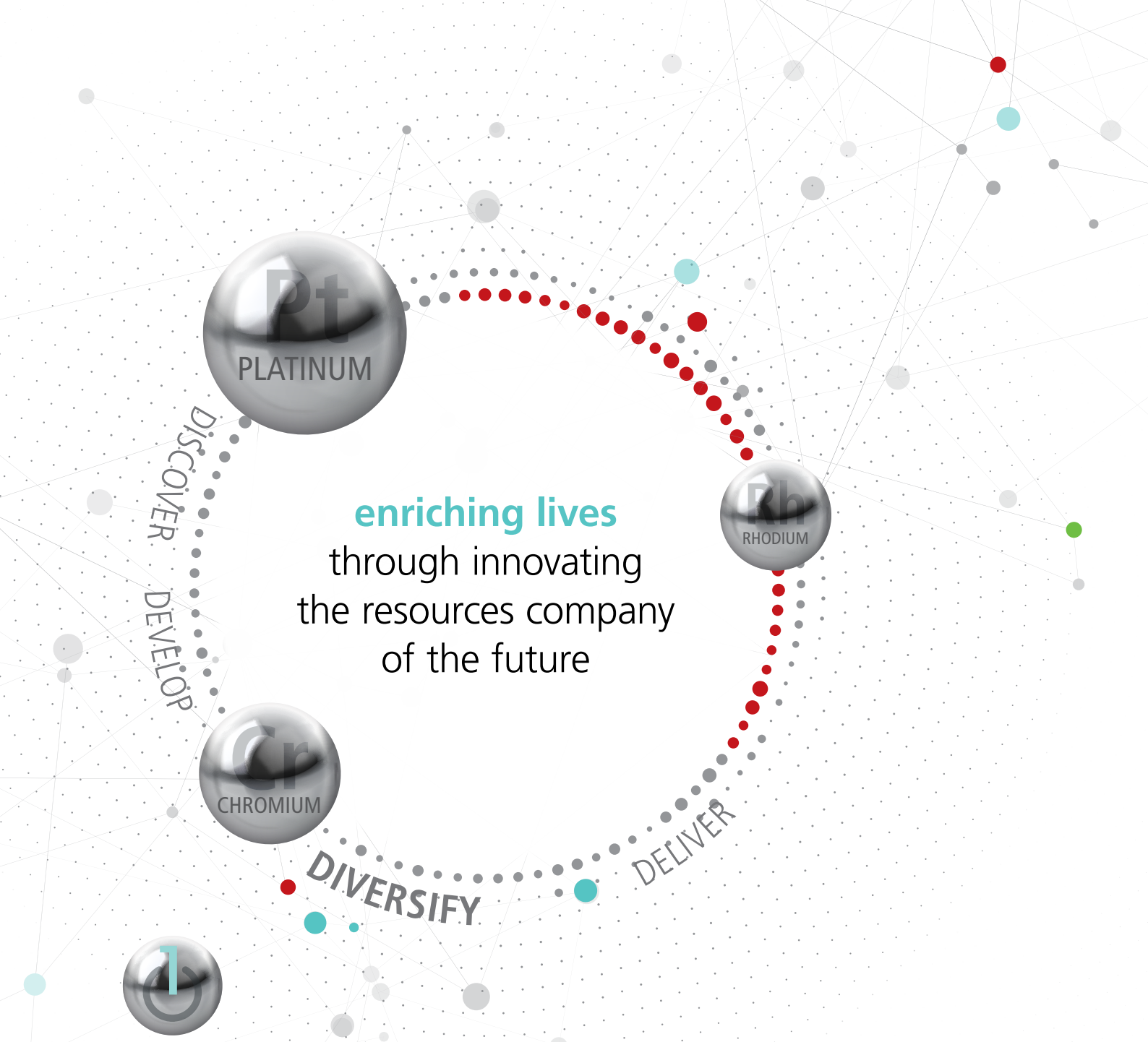

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tharisa

2023 Sustainability

SUSTAINABILITY LETTER

The last year has continued to present both the corporate world and governments with constant challenges. Indeed, the most popular new word in 2022 was 'permacrisis', according to the Collins Dictionary.

This suggests that being in a state of crisis is now a permanent condition, at least for some decades, as we strive to mitigate the effects of climate change to reach net zero by 2050. Too often, in dealing with urgent short-term problems, companies postpone addressing longer-term but critically important issues. Despite commodity price volatility, Tharisa believes that we need to continue to focus on reducing our carbon footprint over the longer term while aligning our business to thrive in a decarbonised world for our stakeholders' benefit.

We have previously announced our intention to reduce our carbon emissions by 30% by 2030 and I am happy to report that plans to deliver this are well underway. More importantly, we have a role to play in producing the metals that are vital for the energy transition away from fossil fuels, which is essential to achieving a sustainable future for the planet.

Dr Carol Bell
Non-executive Director

The most advanced of our projects to reduce our carbon footprint by 30% by 2030 is a solar power generation project, on which we are working in conjunction with Chariot Transitional Power and Total Energies. The necessary consents have been received and construction is expected to commence in the second quarter of 2024. This will create jobs for about 200 people, mainly from local communities. The project will generate up to 40 MW of photovoltaic (PV) electricity to supply the Tharisa Mine. This will reduce our dependence on Eskom, which mainly produces electricity at coal-fired power stations, from 100% to 69%.

Chariot Transitional Power is also a partner of our subsidiary Karo Platinum in Zimbabwe, where a similar approach to renewable power generation is being deployed.

From mine to megawatt

As a precious metal miner, innovation has always been a core driver at Tharisa to optimise PGM metal recovery. This culture of continuous innovation has enabled us to research a new concept in battery storage for the electricity that cannot be used immediately from our solar farm development at the Tharisa Mine. Over the past four years, we have developed a redox flow battery solution within a recently formed subsidiary, Redox One.

Redox One has pioneered a low-cost electrolyte using chrome – a product of the Tharisa Mine – that is safe, stable, and environmentally friendly. This will be deployed initially at the Tharisa Mine but may potentially be marketed to other users.

Embedding sustainability across our business

Over the year, we have made considerable strides in implementing systems and procedures across our operations to have greater control over the ESG factors that affect our daily business. For a second year, our data has been assured by IBIS as we align our disclosure to best practice. We continue to be acutely aware of our role beyond the mine gate within local communities. Many of our skilled workforce come from these communities and we aim to strike a fair balance between the economic benefits brought by our activities and the impact of our operations on the broader community. A community engagement process is underway with the community members most affected by our mining operations.

Our expenditure through procurement in the area of influence around the Tharisa Mine over the year was ZAR18.9 million, which positively impacts on the community. We have taken a similar approach with respect to the development of the Karo Mine in Zimbabwe, where as much as possible is being procured locally. Furthermore, by the year end we were employing over 1 100 people on site at the Karo Platinum Project, of which 21% were female.

In conclusion, the mining industry has a great deal to contribute to a more sustainable world not only as a supplier of the required metals but also as a source of employment and broader economic benefits for the communities in which it operates. I am delighted to report that our initial promises to address climate change are now turning into concrete plans and attractive investment opportunities. Moreover, how we gather information to measure our progress on this path has been embedded in our operations, enabling better decision making. What has been achieved over the past year shows real evidence of the commitment Tharisa has to a just transition away from fossil fuels, which through continuous innovation, has the potential to contribute beyond the decarbonisation of its own activities.

Dr Carol Bell
Chairman of the Climate Change and Sustainability Committee and Lead Independent Non-Executive Director

Climate change

- Investment in solar power and Redox One battery technology will improve the sustainability of our operations
- Proposed 30 MW PV solar plant to supply energy to the mine thereby ensuring a 30% reduction in emissions by 2030
- The future energy plan for Tharisa is proposed as:
  - FY2023 – 100% Eskom power
  - FY2024 Q4 – 63% Eskom and 37% solar
  - FY2025 Q4 – 9% Eskom, 37% solar and 53% wheeled

Water management

- As part of the water conservation strategy for the operations, a reverse osmosis (RO) water plant has been constructed in FY2022 supplying the mining changing facilities instead of using municipal lines
- The project for installation of flow meters to ensure we can account for and report on water used and reused volumes accurately, started in FY2022 and is in progress

Extraction and land management

- Alien invasive plant (AIP) management through chemical and mechanical means by an independent service provider who employs locally to identify and remove AIPs. This AIP management promotes natural vegetation establishment as well as stimulating local employment

Stakeholder

- Tharisa Community Trust is a shareholder in Tharisa plc with dividends to the Trust derived from all group activities
- US$2.3 million spent on skills development training

Governance and taxes

- Board controlled by majority independent non-executive directors
- Board compliant with Cyprus, South African and UK governance guidelines
- Currency inflows into South Africa (direct and indirect) US$451.6 million
- Global direct taxes, indirect taxes and royalties paid of US$64.2 million

Why Global Reporting Initiatives ('GRI') standards?

Over the last 25 years, sustainability reporting has evolved from a 'nice to have publication' into a reporting standard used to attract investors and customers while creating value for companies like ourselves. Since then, the GRI standards remain the most widely used sustainability reporting standards globally, merging elements of the Sustainability Accounting Standards Board (SABS), Sustainable Development Goals (SDGs), United Nations Environmental Protection Agency (UNEPA) and the United Nations Global Compact (UNGC) which has motivated us to report against GRI standards.

Sustainability is not a tick-box exercise but a fundamental part of our business. We see it as the key ingredient, like sugar in a cake or lemon in lemonade, that brings long-term economic success. By reporting against GRI, we can achieve the following benefits:

1. Improve our sustainability performance.
2. Improve our risk management and investor communications.
3. Engagement with stakeholders and improved relations.
4. Motivate and engage employees.
5. Stronger credibility as committed corporate citizens.
6. Improved sustainability strategy and selection of performance indicators and targets.
7. A means to benchmark sustainability performance against self and others.

Our organisation is listed on two stock exchanges, the Johannesburg Stock Exchange and the London Stock Exchange. As a global group, we continue to operate with honesty, integrity, transparency and flexibility. As an organisation, we acknowledge that impact reporting is not only the right thing to do but is critical to our ongoing success and the ultimate sustainability of our business through multiple generations. Over the years, we have made progress towards fulfilling the SDGs and objectives, which will be reflected in this report.

All the data in this report was collated in accordance with guidelines and definitions based on the GRI standards unless stated otherwise.

Assurance

An independent external assurer has assured sustainability data used in this report (see page 80).

Environment

Governance

Social

Safety

Key data

Safety

Fatalities

1
(2022: 0)

LTIFR (Tharisa Minerals)

0.13
(2022: 0.41)

Environment

Total energy consumption GJ

2 241 328
(2022: 2 238 622)

Total CO_2 emission (Scope 1) tCO_2e

123 555
(2022: 135 077)

Diesel used (M litres)

42
(2022: 40)

Tailings volume (Mm^3)

1.15
(2022: 1.37)

Health

Number of employees and contractors who underwent hearing tests (via medical surveillance programme)

7 934
(2022: 8 281)

Number of employees screened for TB/silicosis (via medical surveillance programme)

3 094
(2022: 3 014)

Occupational diseases (number of new silicosis/TB and NIHL)

0
(2022: 0)

Number of employees and contractors voluntarily tested for HIV/AIDS

3 876
(2022: 3 432)

Social

Employees who received learnerships, bursaries, internships and skills and enterprise development training

75
(2022: 127)

Total amount spent on SLP

ZAR18.5m
(2022: ZAR13.1m)

Total amount spent on procurement from HDP, women and B-BBEE compliant companies

ZAR2.27bn

Total spent on local/host community suppliers

ZAR18.9m

ESG framework

Integrating sustainability into our business and investment decision making has been a feature at Tharisa for some time and we have always sought to improve our employees' lives and those of the communities in which we operate.

In recent years, we have put more focus on the measurement of environmental data in recognition of the need to reduce our carbon footprint and impact on the natural environment in a way that is documented comprehensively.

Our purpose is to minimise our impact on the landscape in order to benefit the community's sustainability when our operations cease.

By now, as a company, we can demonstrate how embedding ESG and sustainability within our strategy makes a difference. This report builds on the ESG disclosures we have provided in the past and ensures that all our stakeholders are informed in a timely and transparent way. It also illuminates the pathway towards our 2030 and 2050 goals with respect to our decarbonisation pathway using renewable energy and our internal innovation capabilities.

ESG commitment and accountability

As a global player in PGM and chrome supply we continue to operate with honesty, integrity, transparency and flexibility. As an organisation, we acknowledge that impact reporting is not only the right thing to do but will underpin our progress towards ensuring multigenerational sustainability of Tharisa. Over the years we have made progress towards fulfilling the Sustainable Development Goals (SDGs) and objectives, and this will be reflected in this report. IBIS Consulting is Tharisa's sustainability assurance provider for FY2023.

ESG principles and commitments

Principles	Commitments
1. New business cases and investments within the Group will be evaluated against ESG principles	• Conduct ESG due diligence and assessment of ESG risk for existing investments and new businesses. • Establish internal capacity to implement the ESG framework and deliver on the commitments effectively. • Integrate ESG framework within Tharisa's day-to-day business and operations.
2. Adherence to governance and promotion of ethical practice across the Group	• Make decisions in line with the existing governance framework. • Report the Group's ESG performance half-yearly and annually in line with GRI standards.
3. Encourage and promote engagement on ESG issues with stakeholders	• Engage with local (host) communities on all relevant ESG issues in collaboration with dedicated departments at operations. • Create and maintain a good relationship with state organs and regulators.
4. Adoption of new technology solutions to assist in the transition to a low-carbon economy	• Ongoing strategic partnership engagements on adopting cutting-edge technology in the field of Mining machinery. • Integration of role-players in the process of asset replacements within operations to provide an opportunity to endorse ideas on low-carbon economy solutions within our mining value chain.
5. Achieve a 30% carbon reduction by 2030	• We are transitioning to renewable energy and the consortium is committing to invest circa ZAR1 billion towards a solar energy project to supply Tharisa Mine by Q1 2025. • Offsetting where applicable to reduce Scope 1 and 2 emissions.
6. Achieve carbon neutrality by 2050	• Our research and facility unit is currently trialling carbon neutralisation projects.
7. Environmental stewardship	• Create biodiversity management plans to offset our impacts on sensitive areas and all new developments. • Improve our water usage at all operations. • Align to good international industry practice on environmental principles for stewardship.

Environment and social risks linked to SDGs

Tharisa's critical environment and social risks and commitments to achieving SDGs

Tharisa's disclosure of environmental and social risks and commitment to achieving the SDGs applicable to the business is critically important due to our impact on various environmental and social aspects. Adequate understanding and management of these risks from a business perspective is essential to ensuring the continuation and growth of the business and commitment to the SDGs. The critical risks identified for the Tharisa business, which are linked to the SDGs, have been highlighted below, along with our commitments to reducing these risks on society and the environment.

Our contribution towards achieving sustainable development goals

We strive for:

- Building adaptable communities
- Environmental stewardship
- Thriving through climate change

As a global player, we acknowledge the importance of creating an economically, socially sustainable, and resilient environment worldwide; motivating us to align, adhere and surpass the SDGs. Our developmental initiatives have inherent risks and impacts, which drives us to ensure that we remain committed to the SDGs.

Our sustainability vision is to create long-term value for all our stakeholders.

United Nations SDGs	Environment/ social aspects	Environment/ social risks	Commitments made to reducing our risk	Our status
 NO POVERTY	Food security	• Hunger and malnutrition • Food insecurity	• Create sustainable jobs directly and indirectly enables people to purchase food. • Food parcels for matric winter school in partnership with Engen. • Food donations.	✓
 GOOD HEALTH AND WELL-BEING	Health	• Spread of communicable and non-communicable diseases.	• Providing holistic wellbeing for our employees for free. • Conducting annual medical assessment for all employees and contractors. • Annual medical assessments and lifestyle diseases assessment • Providing employees with relevant medication and counselling. • Health campaigns over the year.	✓
 GENDER EQUALITY	Equality	• Gender-based violence. • Discrimination and harassment. • Alienating people-based gender, sexual orientation, marital or civil partner status, gender reassignment, race, religion or belief, colour, nationality, ethnic or national origins, disability and age.	• We continue to attract women into management positions and promote women in mining. • Diversity and inclusion are celebrated and promoted at Tharisa, and women occupy decision-making authorities. • We also have strong anti-discrimination policies that enforce compliance. • We conduct campaigns and raise awereness on the ending of GBV.	✓
 CLEAN WATER AND SANITATION	Water	• Contamination of the water resource. • Overconsumption of water from a water scares country, resulting in reduced water available to the surrounding communities.	• Monitor water quality and quantity and input information into water models to proactively identify potential pollution sources and ensure adequate mitigation. • Reduce water consumption and discharge to conserve and protect depleting water resources by reusing processed water. • Development and implementation of a salt and water balance and installation of water meters for accurate data collection from meter readings. • Maintenance of stormwater management infrastructure to ensure full compliance with GN704 Regulations.	✓
 AFFORDABLE AND CLEAN ENERGY	Power usage	• Exploitation of non-renewable resources. • Overconsumption of electricity and increase the strain on the national grid.	• Reduced dependence on coal-generated electricity or even diesel fuel generators. • Proposed 30 MW PV solar plant to supply energy to the mine thereby ensuring a 30% reduction in emissions by 2030. • Implement energy-saving initiatives. At this stage, our initiatives included the installation of LED lights, solar geysers and solar-powered systems (control room). • Progressive installation of green energy fuel equipment forms part of our targets and objects to ensure all effective opportunities are exploited.	✓

United Nations SDGs	Environment/ social aspects	Environment/ social risks	Commitments made to reducing our risk	Our status
 DECENT WORK AND ECONOMIC GROWTH	Employment	• Exploitation forced or child labour. • Increased unemployment, poor quality jobs, unsafe work conditions and insecure income.	• We comply with the Labour Relations Act and associated legal statutes governing the industry. • We create sustainable work opportunities for young people, host communities and historically disadvantaged individuals. • Our remuneration and benefits are competitive.	✓
 RESPONSIBLE CONSUMPTION AND PRODUCTION	Waste	• Contamination of soil, water and natural resources. • Inadequate available disposal space due to incorrect waste management.	• Significant waste reduction, increased recycling and reuse. • Effective engineering-designed waste rock dumps ('WRDs') and tailings storage facilities ('TSFs') to prevent contamination. • Safe disposal of waste (general and hazardous) to landfill sites if not able to be recycled. • Effective mining methods utilised to reduce waste generation and increase ROM production.	✓
 CLIMATE ACTION	Climate change	• Release of increased greenhouse gases (GHG) to the environment.	• Energy reduction and use of alternative renewable energy systems. • Waste recycling and reduction. • Monitoring GHG inventory and compliance with our annual regulatory reporting requirements to the Department of Forestry, Fisheries and the Environment via the South African Greenhouse Gas Emissions Reporting System (SAGERS).	✓
 LIFE ON LAND	Biodiversity	• Loss of protected species. • Alien invasive species encroachment. • Loss of natural biodiversity (fauna and flora).	• Eradication of alien invasive species. • Rehabilitation of areas impacted and no longer in use. • Ensuring provision is made available for post-closure.	✓
 PEACE, JUSTICE AND STRONG INSTITUTIONS	Legal compliance	• Fine and penalties given by authorities. • Reputational risk. • Lack of environmental protection.	• Acquire all applicable legislative permits and authorisations. • Undertake environmental and legal audits to continuously assess and analyse the relevance of all Tharisa-approved EMPr and associated authorisation to all applicable legislation, including but not limited to the Mineral and Petroleum Resources Development Act No 28 of 2002 (MPRDA), National Environmental Management Act No 107 of 1998 (NEMA) and National Water Act No 36 of 1998 (NWA). • All new activities must obtain approval from Competent Authorities prior to implementation.	✓

* *Unless otherwise indicated the data refers to Tharisa Minerals as Karo is still in development*

Environment

Environmental management

In the broader sense, sustainability refers to the ability to continuously maintain or support a process over time. In business, sustainability seeks to prevent the depletion of natural or physical resources so that they will remain available for future generations. Tharisa is thus committed to incorporating sustainability ideology into our ethos and overall Company values.

Tharisa utilises the Harvard Business School theory to measure our sustainable business practices by understanding the effect a business has on the environment and on society, with the goal of sustainable practice being to positively impact at least one of those areas. Tharisa encourages a balance between long-term benefits with immediate returns and the goal of pursuing inclusive and environmentally sound objectives. In doing this, Tharisa is committed to cutting emissions, lowering energy usage, sourcing products from fair-trade organisations, and ensuring their physical waste is disposed of properly and with a lower carbon footprint.

The SDGs represent a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. Of the 17 SDGs from an environmental perspective, Tharisa focuses on SDG 6 (Clean Water and Sanitation), SDG 7 (Affordable and Clean Energy), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Actions), SDG 15 (Life and Land) and SDG 16 (Peace, Justice and Strong Institutions). Stewardship is our strategic approach to promoting SDGs and directly driving sustainability initiatives as part of our 2030 and 2050 climate commitments.

Environmental performance indicators (2022 vs 2023)

Indicators	FY2023	FY2022
Total water consumption	**1 776 553 m³**	3 485 152 m³
Total electricity consumed	**213 390 MWh**	208 750 MWh
Total energy consumption	**2 241 328 GJ**	2 238 622 GJ
Total CO_2 emissions	**5 542 515 tCO_2e**	5 389 848 tCO_2e
Total fuel purchased	**41 M litres**	42 M litres
Total waste generated	**3 163 tonnes**	4 079 tonnes

Environmental performance

Waste management

Tharisa places emphasis on ensuring that the waste management hierarchy of controls is always applied, where the most desirable objective is the generation of the least amount of waste. In contrast, waste disposal is the last resort after management control. However, the waste management procedure at Tharisa is such that waste is generated, separated at source, stored in suitable waste containers according to a colour coding system, thus allowing for recycling and reusing where applicable, thereby reducing volumes disposed of.

	FY2023	FY2022
Total non-hazardous waste generated	**1 768.53 tonnes domestic and industrial**	1 974.35 tonnes domestic and industrial
Total hazardous waste generated (solid)	**2 488.83 tonnes solid**	2 107.28 tonnes solid
Total hazardous waste generated (liquid)	**9 156 Kℓ**	8 937 Kℓ
Production waste generated	**14.50 Mm³ waste rock**	19.38 Mm³ waste rock
Tailings waste generated	**1.15 Mm³ tailings volume**	1.37 Mm³ tailings volume

Several waste management initiatives were implemented to reduce the overall waste generation and where waste was generated to ensure acceptable recycling initiatives were implemented. An overall reduction of 10% occurred between FY2022 and FY2023. 60% of the non-hazardous waste generated by the mine was recycled, which increased from FY2022 by 4%. The types of non-hazardous waste recycled at Tharisa include scrap metal (69%), timber/wood (4%), rubber (recyclable) (15%), HDPE piping (11%) and conveyor belts (1%). In total, 38% of the domestic waste was sent to landfills and 62% of industrial waste was reused/recycled.

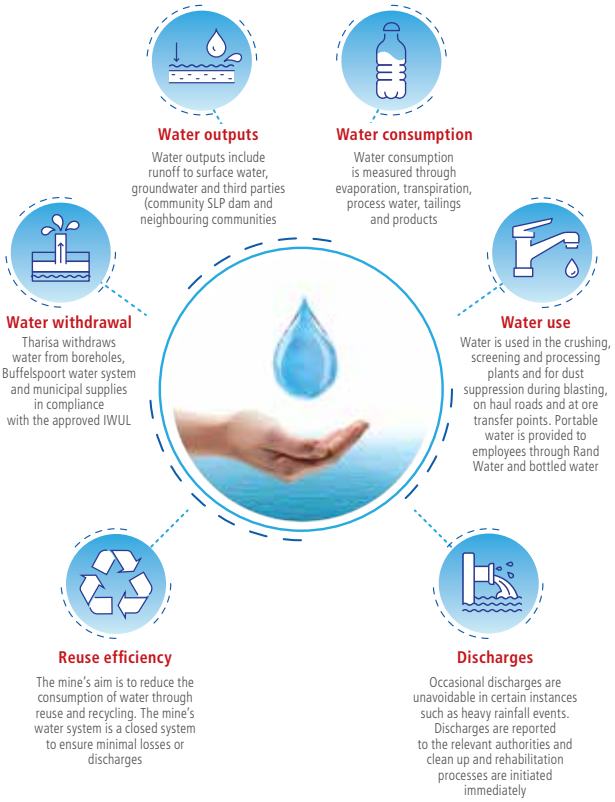
Critical to managing waste is also ensuring that hazardous waste generated by the mine does not have cumulative environmental impacts. Tharisa aims to ensure that hazardous waste storage and management areas, including WRDs and TSFs have adequate controls, such as bund walls and effective design liners, have collection systems (sumps, silt traps or oil traps) and are correctly operated and maintained. Tharisa is also committed to ensuring where hazardous waste can be recycled, it is implemented, therefore, Tharisa has recycled 100% of its hazardous liquid waste generated which amounts to 79% of the overall hazardous waste generated by the mine being recycled. The hazardous waste is reused or treated through incineration offsite (used oil, contaminated water) and recycling (sewage: wastewater treatment plant). Empty hazardous waste containers, including empty drums, empty IBC/flow bins, dust buckets (20/25L), paint tins, batteries and fluorescent tube boxes are also recycled.

Water management

A total of 1 776 553 m³ of water was consumed in FY2023. This is in part attributed to the reduced volume of water needing to be dewatered from the pits.

Water usage is among the resources that are closely monitored and preserved, given our setting within a water-scarce region. The water used by the mine is mainly abstracted from the boreholes (52%), Buffelspoort water supply system (0.3%), Rand Water/potable water (14.9%), purchased water bottles (5.8%) and water used for dust suppression (27%).

As part of the water conservation strategy for the operations, an RO water plant has been constructed in FY2022 and is fully operational. Water from the RO plant supplies the mining changing facilities instead of using municipal lines. Limited water has been abstracted from the Buffelspoort Dam due to a positive water balance for most of the year.



Wastewater management

Pollution control dams ('PCDs') are essential for surface water management, particularly water considered contaminated, dirty or polluted. Our PCDs ensure that wastewater is contained through dirty water channels and pipelines and reused in our processes. The separation of dirty and clean water is critical for compliance with GN704 Regulations. Therefore, Tharisa aims to ensure stormwater management facilities are operated and maintained at optimal capacity. Process effluent water is collected in the lined TSFs to prevent seepage into groundwater.

Wastewater generated from sanitation purposes is channelled back to the sewerage treatment plant where the chemical and biological treatment of the water is undertaken, resulting in treated water being pumped to the process water dam for reuse in our processes.

Water recycling

Water recycling is a critical performance indicator, given the amount of water needed to operate the three processing plants. Therefore, recycling initiatives form part of our water conservation strategy, which is in line with SDG 6:

- Water from the east, west and far west pits is pumped through an authorised process known as pit dewatering into the Hernic Quarry and is subsequently pumped back into the system to be reused;
- Clean and dirty water is separated through the stormwater management system and routed to the stormwater dam through various channels in compliance with GN704 Regulations;
- Return water from the tailings storage facility ('TSF') drains into the solution trenches, routed to a drain sump, pumped to a dissipator dam and then to a licensed PCD for reuse in the plants; and
- The water management system acts as a closed circuit to prevent the loss of water and discharge or seepage to the environment. All water management systems are regularly maintained.

The commissioned expanded wastewater treatment facility allows wastewater to be treated and reused within the mine circuits, including water from the change house facilities. In our sustained efforts to continuously improve, our inaugural salt and water balance report was developed in February 2022 and updated as per the IWUL requirement in 2023. These updates are envisaged to occur annually, and the recommendations therein assist in implementing measures that will contribute towards water conservation, demand management and reuse.

Environmental awareness initiatives through induction and monthly talk topics are continuously implemented to reiterate the importance of water conservation to our employees and contractors.

Water metering is a critical aspect in terms of monitoring inflows and outflows accounting for volumes received, used and recycled. This is a focal area for the organisation. The project for installation of flow meters, to comply with regulatory requirements and to ensure that we can account for and report on water used and reused volumes accurately, started in FY2022 and is in progress.

Energy management

The efficient use of electricity is critical to the successful operation of the mine and processing plants. Electricity is utilised to run the processing plants, while diesel is used for the operation of all mining machinery. This results in energy consumption with the key aim of reducing the mines' dependency on non-renewable resources and focusing attention on renewable power generation. Purchased fuel for FY2023 amounted to 41 497.96 m^3 which increased by 0.26% and electricity amounted to 213 390.04 MWh, which increased by 3% compared to FY2022.

Tharisa recognises the need to align with the SDGs, particularly our stated reduction of 30% carbon footprint by 2030 and pathway to carbon net neutrality by 2050. Therefore, powering the mine with alternative green energy is essential in attaining these objectives.

FY2023 initiatives included:

- Undertaking a feasibility study on using Moringa trees to produce biodiesel. Should the results of this study prove to be favourable, further investigation into the use of biodiesel will be undertaken.

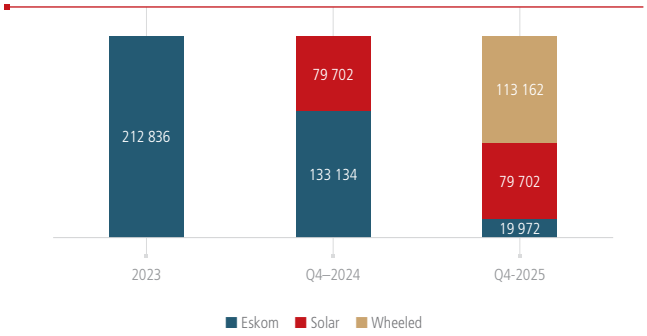
- Construction of a 30 MWh solar farm to provide renewable energy to the mine. The solar farm was granted environmental authorisation (EA) in May 2023, with the water IWUL application approved in November 2023. Should all the applicable authorisations and permits be approved, it is anticipated that the solar farm will begin construction in CY2024 and be operational by Q1 of CY2025.
- Where solar power generated is not sustainable to power the mine, specifically at night and in winter or cloudy/rainy weather, an electricity wheeling arrangement from renewable energy sources is being investigated, with the service provider potentially being able to supply the mine with renewable energy of up to 250 MWh.

The future energy plan for Tharisa is detailed below:

- FY2023 – 100% Eskom power
- FY2024 Q4 - 63% Eskom and 37% solar
- FY2025 Q4 - 9% Eskom, 37% solar and 53% wheeled

Future energy plan

(%)



Climate change

SDG 13 requires that climate action is taken and efforts are made towards the global transition change to a low-carbon economy. Tharisa acknowledges the importance of mitigating and reducing our GHG emissions and identifying climate change risks and opportunities. Since 2016, we have calculated our GHG inventory and have ensured that we comply with our annual regulatory reporting requirements to the DFFE via South African Greenhouse Gas Emissions Reporting System (SAGERS). Furthermore, our carbon footprint results are presented following the GHG Protocol and the ISO 14064-1 2018 reporting standard which is the dominant guidance for Company reporting.

	FY2022	**FY2023**
Direct (Scope 1) GHG emissions	135 077 tCO_2e	**123 555 tCO_2e**
Energy indirect (Scope 2) GHG emissions	221 275 tCO_2e	**221 926 tCO_2e**
Other indirect (Scope 3) GHG emissions	5 071 106 tCO_2e	**5 197 034 tCO_2e**

Direct GHG emissions (Scope 1): Represent emissions generated by sources owned and controlled by Tharisa. Diesel contributed over 90% of the Scope 1 GHG emissions for FY2023.

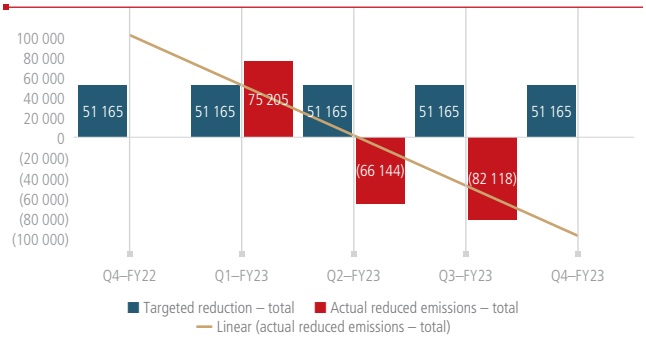
Energy indirect emissions (Scope 2): Represent emissions that result from the electricity purchased from the national grid and consumed by Tharisa. Therefore, it is the sole emitter of 221 926 tCO_2e.

Other indirect GHG emissions (Scope 3): Represents emission from sources activated by the mine's activities. However, they are owned and controlled by subcontracting or value-adding chain companies.

These emissions are further categorised upstream and downstream. Upstream focuses on acquired goods and services, whereas downstream pertains to sold goods and services.

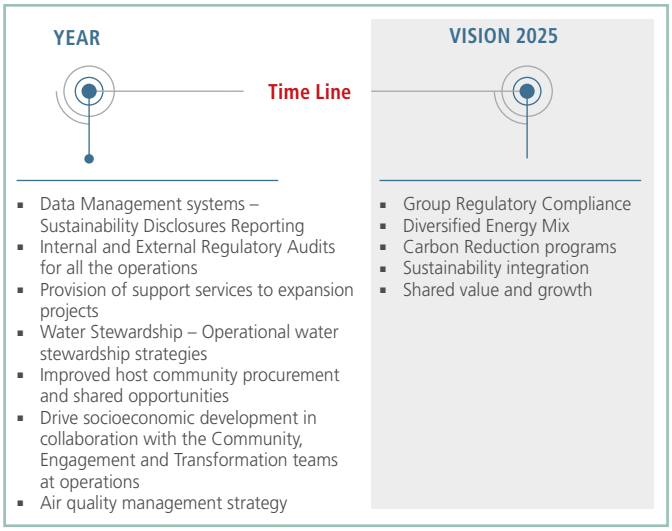
FY23 quarterly reduction

(tCO_2e)



Tharisa's FY2022 carbon emission performance indicated an increase in emissions, mostly due to the commissioning of the Vulcan Plant. Consequently, the carbon emission and reduction targets for FY2023 were reviewed to ensure that we achieved the set carbon reduction targets. The diagram above illustrates the total actual emissions versus the target emissions.

Tharisa is committed to undertaking projects focusing on climate change. An R&D centre in Buffelspoort across from the mine has been commissioned. The facility will be focused on piloting and testing renewable energy projects for future implementation in our operations.



To support and complement our decarbonisation pathways and deliver on our long-term ambition, we commit to:

- Work collectively;
- Secure financial and technical support;
- Engage with suppliers to ensure the availability of feasible decarbonisation technologies;
- Collaborate to determine the most appropriate role we can play in contributing to carbon neutrality; and
- Engage with our partners to get buy-in and ensure alignment with their commitments, provided these align with our overall level of ambition.

Biodiversity

Biodiversity is the variability among living organisms within all ecosystems and their ecological complexes. It is the variation of life seen on land, water and in the atmosphere. The maintenance of diversity in the biological and physical elements is crucial for the preservation of life. While mining may result in the degradation of habitats and several biological features, Tharisa believes that more can still be done within and outside the boundaries of the mine to reduce ecological degradation.

AIP management is critical to the mine and our overall rehabilitation success. AIPs are removed through chemical and mechanical means by an independent service provider who employs locally to identify and remove AIPs. This AIP management promotes natural vegetation establishment as well as stimulating local employment. Continual monitoring of AIPs along mine-impacted areas and in the vicinity of rehabilitated areas is then implemented until the vegetation units are considered stable. Thereafter, surveillance monitoring is undertaken periodically to monitor success and stability of the vegetation. Tharisa is in the process of removing AIPs along the Sterkstroom River riparian area.

AIP management

As part of the mining process, vegetation is cleared, topsoil is stripped and stockpiled for later use during rehabilitation. Where possible, indigenous protected trees, removed during vegetation clearing, are transplanted to other areas around the mine to ensure the preservation of our natural biodiversity. In 2008 when mining commenced at Tharisa, a biodiversity study was conducted where indigenous protected tree species were identified to preserve the indigenous vegetation of the area. The tree species selected for translocation included *Celtis africana burm* (White stinkwood), *Schotia brachypetala* (Weeping boer-bean), *Erythrina caffra* (African coral tree) and *Cussonia spicata thunb* (common cabbage tree) to name a few.

Schotia brachypetala
(Weeping boer-bean)

Erythrina caffra
(African coral tree)

Celtis africana burm
(White stinkwood)

Cussonia spicata thunb
(common cabbage tree)

The planting of trees aids the mine and surrounding communities in the following ways:

- Act as windbreaks;
- Dust mitigation;
- Noise and visual screening;
- Carbon footprint offsetting; and
- Provide shade during hot climatic conditions.

The translocated trees have been planted within the mine office space and parking lot, along the PCD, to enhance the current topsoil berm (noise, visual and dust abatement measures) and to cover patches of historically degraded land created by farming activities prior to mining activities.

Areas proposed to be cleared, such as the solar farm and new mining areas, will aim to ensure minimal vegetation clearance as well as maximise the preservation of indigenous vegetation.

Area rehabilitated by Tharisa previously impacted by a third-party pre-mining

Trees were recently relocated and planted along PCD to construct a mitigation measure berm

Patrick Sibuyi – Environmental Coordinator

TSF

Once ROM is extracted from the opencast pits, it is transported to the processing plant where the ore is finely ground and mixed with water and chemicals to separate the minerals from waste. Tailings (or slurry) is the waste remaining after the usable ore has been extracted. The tailings (consisting of waste and water) is then pumped to the TSF for permanent disposal.

Poorly managed TSFs can result in potential groundwater pollution. Recent international catastrophic incidents highlighted the significant impact that TSF failures can have on the people and environment downstream from these facilities. Responsible TSF management is, therefore, a significant focus for investors, NGOs and other stakeholders, as well as a strategic issue with major financial and reputational value.

Tharisa is committed to TSF management and standards that align with national and global good practices for the preservation of health, safety and the environment in all phases of the mining lifecycle.

Tharisa has two mine residue disposal facilities (MRDFs). MRDF1 comprises TSF 1 and TSF 1 expansion. Mine residue disposal facilities ('MRDF') 2 includes TSF 2 phase 1 and TSF 2 phase 2. TSFs are constructed using waste rock where the tailings from the plant are deposited into the basin of containment dams through open-ended pipes to ensure that TSFs are satisfactorily managed. Tharisa conducts seepage and slope stability analyses. Reports on MRDF 1 and 2 which are submitted to the DMRE in compliance with the EMPr conditions.

This review allows for continuous monitoring of the integrity of the structures and thus allows for the timely identification of potential environmental issues.

Mitigation measures to minimise the impact of these facilities include:

- Intercepting solution trenches as deep as 1.5 metres to collect seepage, preventing environmental release.
- Stormwater diversion trenches are maintained by removing vegetation and silt to ensure effective water diversion.
- Water quality and groundwater levels are monitored by an independent service provider through the monitoring of various locations via boreholes surrounding the TSFs, which can detect and flag potential seepage.
- As the TSF's waste rock containment walls exceed the tailings level, stormwater is stored on the tailings dams, recirculated to the plant as makeup water and used when needed.
- Growth of vegetation occurs on the tailings beach to reduce dust generation.

To learn more about Patrick Sibuyi's work and our rehabilitation initiatives, click here

EPOCH

Reference No: 144-001 **Date:** 3 December 2023

Tharisa Minerals

372 Main Road
Bryanston
Johannesburg
2191

Attention: Messrs. Jonathan Smit & Ilja Graulich

THARISA (PTY) LTD - TAILINGS MANAGEMENT STRATEGY AND PERFORMANCE

1. Introduction

Tharisa Minerals Mine and Karo Platinum Mine are subsidiaries of Tharisa PLC (*Tharisa*). This letter serves to describe Tharisa's overall tailings management strategy, as well as provide a brief overview of each mine's progress in compliance with the Global Industry Standard on Tailings Management.

Tharisa Minerals Mine (*TMM*) is located in the Marikana district on the North-West Province of South Africa. The mine currently has 4 Mine Residue Disposal Facilities (MRDFs) of which 2 are dormant and 2 are actively receiving tailings. The design of TMM's fifth MRDF has been submitted for approval to the South African Department of Minerals Resources and Energy and the South African Department of Water and Sanitation, the outcome of which will be communicated to TMM by the end of 2023.

Karo Platinum Mine (*KPM*) is located in the Midlands Province of Zimbabwe. The mine is in the development phase. The construction of the initial MRDF is to commence in October 2023, with the aim of commissioning the facility in July 2024.

Epoch Resources have undertaken the design and construction supervision of all TMM MRDFs and have completed the design of the KPM MRDF. Epoch have also been appointed as the Engineer of Record (*EoR*) for both mines.

2. MRDFs description

The TMM and KPM MRDFs were designed as full containment facilities with rockfill embankments and with foundation keys extending down to competent material following a downstream method of construction. Waste rock generated from the open cast operations and tailings from the processing of ore is integrated into sustainable final landforms with notable benefits in terms of rehabilitation and maintenance. Furthermore, this method of construction provides an engineered, quality assured compacted rockfill impoundment that is inherently more stable in the long term than the conventional upstream self-raised method. The industry is definitively moving away from the upstream self-raised method, with this method being prohibited in various countries, including Chile, Brazil, and Peru.

The design approach for the TMM and KPM MRDFs includes the use of waste rock to construct robust containment walls. It significantly reduces the susceptibility of the facilities to static and transient load-induced liquefaction flow slides by proving an engineered, quality assured compacted rockfill impoundment, making the facilities inherently more stable throughout their life cycle. This is a major departure from the conventional upstream method which relies on the strength of consolidated tailings for the containment of tailings.

Drains and seepage cut-off trenches are included to manage seepage originating from the supernatant pond through controlled outlet points. An added benefit of the full containment methodology is that it provides additional freeboard above that which is created by the sloped tailings beach, significantly reducing the risk of overtopping even during extreme storm events.

TMM is located in a relatively dry region and thus conservation of water is a high priority. The MRDFs are therefore being operated with minimal amounts of supernatant water stored in the facilities. Critical controls and performance objectives have been successfully implemented to ensure the MRDFs embankments remain stable throughout the wet and dry seasons and over the life of the facilities. The process plant and tailings management teams continue to implement and maintain good operational performance and best practice guidelines. The MRDFs are monitored frequently, consisting of:

- Daily inspections.
- Monthly MRDF managing reports and stage capacity curve confirmation.
- Quarterly inspections by the Engineer of Records (EoR) representative.
- Annual review reports by the EoR.

The monitoring approach also ensures that assumptions made during the design phase align with observations made during the operational phase of the facilities while informing TMM of future tailings storage requirements.

The operating and monitoring strategy employed at TMM will be implemented at KPM.

3. Global Industry Standard on Tailings Management

A new standard relating to tailings management was released on 5 August 2020, titled: "Global Industry Standard on Tailings Management" or *GISTM*. The standard was compiled by an independent panel consisting of ICMM members, the UN Environment Program, and the UN Principles for Responsible Investment to reinforce existing industry practices and incorporates social, environmental, local economic, and technological issues. The standard covers the whole MRDF lifecycle, from project conception through project conclusion.

Over the past three years, Tharisa Minerals has achieved remarkable advancements in aligning with GISTM. These efforts build upon TMM's already robust technical standards, demonstrating commitment to responsible tailings management practices.

Tharisa Minerals' MRDFs exhibit robust structural integrity, which not only meet but exceed regulatory requirements and demonstrates Tharisa's commitment to continuous improvement in safety and compliance.

3.1 TMM compliance with GISTM requirements

A Failure Mode and Effects Analysis (*FMEA*) was undertaken by TMM in 2022, facilitated by Tetra Tech (Colorado, USA), to identify Credible Failure Modes (*CFM*) that could lead to the release of contaminants from the MRDFs. The analyses concluded that no credible failure modes exist that would lead to a catastrophic release of contaminants from the MRDFs and that no credible failure modes exist that would lead to a flow-slide failure for any of the MRDFs.

The TMM MRDFs were assessed for their ability to withstand flood and seismic events having an annual exceedance probability of 1 in 10 000 (maximum design criteria stipulated by GISTM) and were all found to meet the GISTM requirements for all stages in their life cycle.

TMM is in the process of updating their Emergency Preparedness and Response Plan (EPRP) in line with GISTM requirements. An Independent Senior Technical Reviewer has been appointed who has undertaken the review of the designs, operations and closure requirements of the MRDFs in 2023.

The TMM MRDFs have an extremely low probability of experiencing a catastrophic flow slide event due to the conservative design measures and stringent monitoring approach outlined above. This is further supported by the MRDFs compliance with the GISTM maximum design criteria and FMEA results.

3.2 KPM compliance with GISTM requirements

A Failure Mode and Effects Analysis was undertaken by KPM in 2023, facilitated by Tetra Tech, to assess the design of the MRDF. The key purpose of the analysis was to identify any shortcoming in the design which could be rectified prior to the construction of the facility. The analysis concluded that no credible failure modes exist that would lead to a catastrophic release of contaminants and that no credible failure modes exist that would lead to a flow-slide failure, based on the current design. The construction and operation of the facility will need to be undertaken as per the design specifications to ensure that these findings are applicable to all phases of the life of the facility.

The design was undertaken with GISTM principles in consideration, and as such, the facility has been designed to withstand storm and seismic events in accordance with the maximum GISTM design criteria. Independent reviews of the design have been conducted throughout the design process.

KPM is actively developing an Emergency Preparedness and Response Plan and finalizing their tailings management structure in line with GISTM requirements, which they aim to have in place prior to the commissioning of the mine.

Sent electronically.

Senior Design Engineer – TMM

Stephan Barkhuizen
B Eng. (Civil) (Hons)

Senior Design Engineer - KPM

Georgia Wills-Vagis,
BSc Eng (Civil), MSc Eng (Civil)

Project Manager/Director

Andreas C Savvas EUR ING
BSc Eng (Civil), MSc Eng (Civil)
MSAICE, M.ASCE, MIMMM, MSAIMM

Reviewer/Director

Guy J Wiid PrEng
BSc Eng (Civil), MSc Eng (Civil)
M SAICE, M.ASCE, MSAIMM

For and on behalf of Epoch Resources (Pty) Ltd

Financial provision

Tharisa was granted a Mining Right and EA, which permits Tharisa to extract PGMs and Chrome from the approved mining reserve. In doing so, Tharisa is committed to ensuring that once the resource has been extracted, the land is rehabilitated in such a manner that preserves the use of the land for future generations.

Tharisa is thus committed to continual and, where applicable, concurrent rehabilitation efforts to ensure a better and sustainable tomorrow.

The FY2023 financial closure liability for the Tharisa Mine as of 30 September 2023 is R376 265 430.99 (including VAT), which is made up as follows:

- R297 122 140.25 for the East Mine area; and
- R79 143 290.74 for the West Mine area.

This provision is calculated independently on an annual basis to ensure sufficient funding is made available for the rehabilitation at the mine.

Rehabilitation

Where infrastructure such as TSFs are proposed to remain for the LOM and become dormant, the sidewalls of these facilities are topsoiled to allow vegetation growth. TSF 1 phase 1 northern sidewall was topsoiled between 2014 and 2015 and natural vegetation allowed to regrow. TSF 2 phase 1 was topsoiled between 2021 – 2022 and vegetation growth is slowly establishing. Where vegetation does not occur naturally, additional measures as prescribed in the mine's EMPr will be implemented.

TSF 1 phase 1 – No longer operational and has been rehabilitated

TSF 2 phase 1 – Topsoil and revegetation in progress

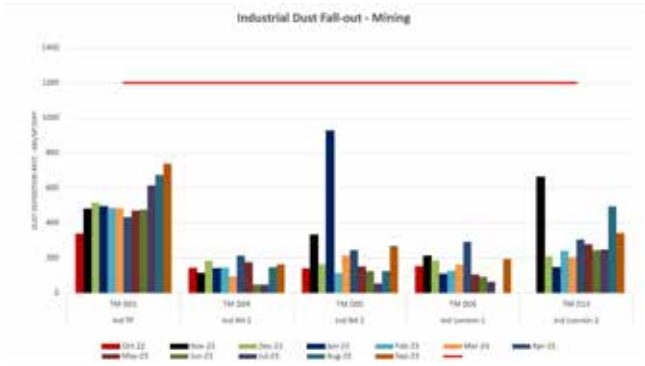
Air quality

The atmosphere is the earth's largest single shared resource, which protects and supports life by absorbing ultraviolet solar radiation, warming the surface and regulating temperature. These vital roles are under threat due to human-driven activities that result in the introduction of pollutants into the atmosphere. It is, therefore, Tharisa's responsibility to ensure that our emissions are managed accordingly, which does not result in significant negative impacts on the environment and our surrounding neighbours. Identifying sources of emissions ensures that we develop, execute, monitor and maintain our air quality management plan.

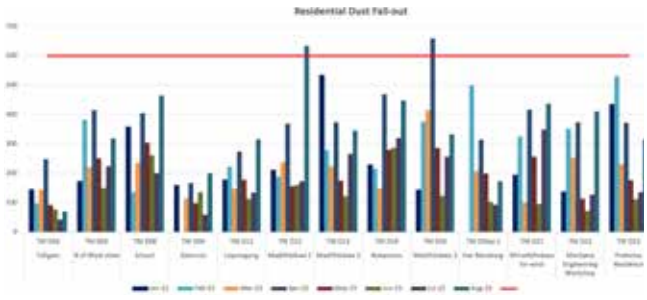
Dust monitoring

Monitoring programmes play a strategic significant role in ensuring that potential air quality impacts are quantified to assist with the continued improvement of control measures. Monthly dust fall-out monitoring is being carried out at 18 strategic locations around the mine. The main dust-generating sources at Tharisa include drilling, blasting, materials handling, ore crushing and screening, vehicles travelling on unpaved roads and wind erosion. The dust monitoring locations are shown below.

Our monitoring programme consists of networks of dust deposition gauges. Results from these monitoring networks will be used to assess compliance with the criteria/limits as per the dust fall-out guidelines for dust deposition and National Ambient Air Quality Standards (NAAQS) with reference to the concentrations of particulate matter. The graph depicts the dust fall-out results for the financial year.



Industrial dust fall-out results for the FY2023



Residential dust fall-out results for the FY2023

To mitigate the dust impact experienced, a site-specific air quality management plan was developed and executed. Air quality management at Tharisa will continue to involve a combination of proactive and reactive management strategies, as well as at-source control measures. These measures will continue to be supported by a network of dust monitoring stations. Current mitigation measures at the mine include:

- Drilling with water.
- Water sprinkler systems along conveyor belts.
- Water sprinkler systems within the crushing and screening plant.
- Dust suppression within the processing plant.
- Dust suppression on mine haul roads using water trucks and stationary water cannons.

For FY2023, 480 662 m^3 of water was utilised for dust suppression.

Tharisa started with a dust suppression project for TSF1 extension (dormant) in December 2018, where different suppliers were engaged in suitable options for the mine. Tharisa opted to trial different options to find the best solution. During the trial Tharisa investigated the following options:

- Netting/dust curtains
- Planting of grass
- Usage of Bedim, a chemical dust suppressant
- Other dust suppressants

A site-specific risk assessment was conducted to determine the best means of reducing the generation of dust. The results indicated that utilising dust suppressants provided a positive short-term to medium-term results.

The dust suppressant on TSF 1 has since been applied and is reapplied every winter. Additionally harvesting natural grass growth on the TSF 1 to vegetate the entire tailings dam has also minimised the generation of dust. Tharisa has also erected netting on the northern side of TSF 1 that acts as a wind barrier.

Passive monitoring

The air quality monitoring programme also includes passive monitoring that commenced in 2013. Skyside conducts the monitoring by quantifying concentrations of sulphur dioxide (SO_2) and nitrogen dioxide (NO_2) that emanate from mining activities such as blasting. The diffusive sampling method, is ideal as it requires no supervision, is noiseless, and can be used in potentially hazardous environments. It also accommodates sampling at multiple locations and thus determines long-term data trends in a specific geographical area. The three locations within surrounding communities including Lapologang, Glenross Farmhouse and Swanepoel are used. The NAAQS provides the limit concentrations at various averaging periods.

Noise management

Noise pollution is energy pollution in which distracting, irritating, or damaging sounds are freely audible. In the narrowest sense, sounds are considered noise pollution if they adversely affect wildlife, human activity, or can damage physical structures on a regular, repeating basis.

The prevailing source of artificial noise pollution within the local area is from the Tharisa mining operations, specifically from the crushing and processing plant, scheduled periodic blasting (daytime), loading and hauling of material, earth-moving equipment (grader), packer machine and public transportation on the N4 highway.

As Tharisa does contribute to the noise levels in the environment, monthly noise monitoring is being undertaken to ensure the noise generated by the mine is mitigated as much as possible. The locations of the noise sampling points are shown below.

Tharisa's nearby residential district can be classified as an urban district with one or more of the following: workshops, business premises and main road areas with most ambient noise levels emanating from surrounding mine operations, N4 highway, agricultural activities, natural and anthropogenic sources (e.g., vehicular movements and existing operations). According to SANS 10103:2008, the noise rating levels for urban districts with one or more of the following: workshop; business premises and main roads must comply with the noise rating level of 60 dB(A) daytime and 50dB(A) night-time.

From the monitoring results, it may be concluded that the impact from blasting on the environmental noise is not more significant than the impact by other sources (road traffic from the N4 highway, other mining operations and plant activities).

It may also be concluded that the noise climate in the area surrounding Tharisa is not in compliance with the standard guideline based on the baseline results and that the mining activities have no significant impact on the noise climate. However, several mitigation measures have been proposed and will be implemented to reduce the noise generated specifically from the mine, where possible.

Nathuael Shoagoane – Bus Driver

Governance

Environmental compliance and management systems

As the mine is ever-evolving, continued upgrades to the mine are required. Every upgrade or change may require further environmental authorisation. Tharisa is committed to ensuring that no activities take place without the required environmental authorisations and permits, where required.

Approved authorisations

The following licences have been issued to Tharisa from 2008 to date. In FY2023, two new environmental authorisations were approved.

Approval	Reference	Approval date
Approval of Environmental Management Programme for the Mining Right in respect of various portions of the various farms K/Kraal 342 JQ and Rooikoppies 297 JQ situated in the Magisterial District of Rustenburg (North West regions) Tharisa Minerals (Pty) Ltd	DMRE ROD reference number: (NW) 30/5/1/2/3/2/1/358EM	19 September 2008
Environmental Impact Assessment Report and Environmental Management Programme (EMPr)	DMRE reference number: NW30/5/1/2/3/2/1/358	13 August 2009
Environmental authorisation for Tharisa opencast mine on the farms K/Kraal 342 JQ, Rooikoppies 297 JQ and possibly Elandsdrift 467 JQ near the town Marikana, listed activities 1(b), 1(m), 1(n), 1(p), 1(q), 1(s), 7, 12, 12, 14, 15 in Government Notice number R. 386, including listed activities 1(c), 1€, 1(h), 1(j), 1(p), 2, 5, 6 and 10 in Government Notice number R. 387, within Rustenburg Local Municipality, North West province (NWP/EIA/159/2006)	DACE ROD reference number: NWP/ EIA/159/2007	23 October 2009
Environmental Impact Assessment Report and Environmental Management Programme (EMPr) Amendment 1: Inclusion of portions 96, 183 and 286 of the Farm K/Kraal 342 JQ Rustenburg Local Municipality	DMRE reference number: NW30/5/1/2/3/2/1/358	14 July 2011
Environmental authorisation for the diversion of an existing 275kV powerline and associated infrastructure at Tharisa Mine, within the Rustenburg Local Municipality, North West province	DEA ROD reference number: 14/12/16/3/3/3/408	15 November 2012
Environmental authorisation for the construction and operation of a chrome sand drying plant, storage fuel, changes in footprint, size and design of the TSF and waste rock dumps, construction and operation of a new waste rock dump and disturbance of waste causes at Tharisa Mine on the Farms K/Kraal 342 JQ and Elandsdrift 467 JQ near Marikana, listed activities number 11(xi), 13 and 18 in GN No. R.544, listed activities number 5, 15 and 26 in GN No. R545 and listed activity number 14 in GN No. R546, Rustenburg and Madibeng Local Municipality, North West province	READ reference number: NWP/ EIA/50/2011	29 April 2015
Environmental Management Programme (EMPr) Amendment 2: Construction of [1] Genesis Plant 4th state crusher circuit [2] Vulcan optimisation circuit	DMRE reference number: NW20/5/1/2/3/2/1/358	24 June 2015
Approval of addendum to the approved Environmental Impact Assessment/Environmental Management Programme (EIA/EMPr) to include changes to the pit, tailings dam and waste rock facilities, a chrome sand drying plant in respect of various properties, situated in the magisterial district of Rustenburg	DMRE reference number: (NW) 30/5/1/2/3/2/1/358EM	24 June 2015
Integrated Water Use Licence	DWS reference number: 03/A21K/ ABCGIJ/1468	16 July 2012
Amendment of an environmental authorisation in respect of the upgrade of the existing wastewater treatment plant in respect of the Farm Rooikoppies JQ 297, Elandsdrift JQ 467 and K/kraal JQ 342 JQ within the magisterial district of Rustenburg North West province	DMRE ROD reference number: NW 30/5/1/2/3/2/1/358EM	14 August 2020

Environmental compliance and management systems continued

Approval	Reference	Approval date
Environmental Impact Assessment Report and Environmental Management Programme (EMPr) Amendment 3: Inclusion of Portion 113 of the Farm K/Kraal 342 JQ and increase of waste rock quantities	DMRE reference number: NW30/5/1/2/3/2/1/358	1 September 2020
Integrated Water Use Licence amendment	DWS reference number: 03/A21K/ ABCGIJ/1468	12 November 2020
Amendment of Tharisa Mine Impact Assessment Report and Environment Management Programme	DMRE reference number: NW30/5/1/2/2/1358 and DEDECT reference number: NWP/ EIA/50/2011	3 August 2021
Amendment of environmental authorisation in respect of the application for environmental authorisation together with a waste licence for increase storage capacity of tailings facility and waste rock dump and increase the authorised fuel storage capacity in respect of Farm Rooikoppies JQ 297, Elandsdrift JQ 467 and K/kraal JQ 342, within the magisterial district of Bojanala, North West province	DMRE reference number: NW 30/5/1/2/3/2/1/358EM	3 August 2021
Rectification of an unlawful commencement with a listed activity as contemplated in section 24G of the National Environmental Management Act, 1998 (Act No. 107 of 1998) as Amended Listing Notice 1 activity number 14 'the development and related operation of facilities or infrastructure, for the storage, or for the storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres	DMRE reference number: NW 30/5/1/2/3/2/1 (358) EM	10 August 2021
Environmental authorisation for the establishment of a mixed-use township development on portion 149 of the Farm Rooikoppies 297, Rustenburg Local Municipality	DEDECT reference number: NWP-EIA-60-2022 EA	25 April 2023
Amendment of an environmental authorisation in terms of the National Environmental Management Act, 1998 (NEMA) as amended, and the Environmental Impact Assessment (EIA) regulations, 2013 in respect of the application for environmental authorisation together with a waste licence for the expansion of the existing and approved far west waste rock dump 1 by a footprint of 109 HA and the establishment of a waste rock dump on backfilled portions of the east pit by a footprint of 72 ha	DMRE reference number: NW 30/5/1/2/3/2/1/358EM	31 May 2023

New applications

The following new projects have been commissioned and the environmental authorisation processes are in progress.

Project	Responsible Competent Authority	Status
Rehabilitation and closure strategy application	DMRE	Application awaiting final decision
Tharisa IWUL application	DWS	Licence declined in July 2023 IWUL re-application is in progress
Additional Waste rock storage – TSF 3 WRD Extension 1	DMRE	Application and final scoping report submitted to the Competent Authority for decision making on whether the application can proceed to the ESIA phase
Increase of TSF 2 storage capacity (lifting of TSF 2 walls)	DMRE	Final EIA submitted to Competent Authority for decision making
Expansion of the mine into the underground workings	DMRE	Environmental application in progress
Arxo smelter environmental authorisation	DEDECT and Bojanala Platinum District	Application submitted to the Competent Authority. Draft scoping report out for public review
Arxo Metals AEL application	Bojanala Platinum District	Awaiting final decision by district municipality

Environmental audit results

Environmental Management Programme report (EMPr)

In February 2022, Tharisa conducted its external biennial EMPr audit. The audit outlined Tharisa's operational compliance in terms of the approved EMPr (2008) and the various amendments. Tharisa scored a compliance of 79.74%:

Implementation of stormwater management, policy updates, meeting procedural requirements, stream diversions management, addressing noise and dust exceedances, and hazardous substances management are the environmental aspects that require great focus and improvement.

To address these concerns the following measures have been implemented during FY2023:

- The construction of stormwater settlement/silt trap and V-drains facilities was completed in the third quarter of FY2023. Additional V-drains are being constructed to separate clean and dirty water systems and ensure no 'dirty water' emanating from operational areas is released into the environment.
- Non-conformances with site-specific procedures are addressed through monthly internal audits/inspections with regular follow-ups on recommended corrective measures in line with legislative and procedural requirements.
- A rehabilitation programme has been implemented along the Sterkstroom River, specifically focusing on removing AIPs.
- Concrete barricading, which was impeding the flow at the Sterkstroom River crossing, has been removed.
- Following sequential exceedances of air quality limits, an air quality management plan, which includes corrective and preventative measures was compiled and has been implemented.
  - Additional water bowsers have been sourced, and additional dust fall-out monitoring buckets have been recently added to the monitoring network.
- Specific improvements have been undertaken towards hazardous waste management at the dozer yard, hazardous waste storage area, truck service area, and the new assembly yard.

The next external biennial EMPr Audit will be conducted in early 2024 and should reflect the significant progress and improvements made to address the non-compliances identified above.

Environmental authorisation compliance audits

Annual EA audits are conducted to assess Tharisa's compliance with the conditions stipulated in the various EAs that have been issued since 2008 to 2023. The scope of the latest external audit covered the 10 EAs issued to Tharisa since its commissioning.

Tharisa is 99% compliant with the conditions of the various EAs. Tharisa will continue implementing mitigation measures and monitoring their effectiveness within the mine to maintain its compliance score.

IWUL audits

In compliance with the NWA, the DWS issued Tharisa with an IWUL on 16 July 2012. Several amendments in terms of the conditions listed in the IWUL were requested from the DWS in 2013. On 12 November 2020, the DWS issued Tharisa an amendment licence in terms of Section 50 of the NWA. This amended licence supersedes the licence issued to Tharisa on 16 July 2012.

The external annual IWUL audit was conducted in February 2023 by an independent service provider. From the audit findings, it was concluded that Tharisa is 72% compliant with its IWUL conditions. The improvements noted from the audit included ensuring that the upgrades to the stormwater management systems are being conducted.

Environmental awareness

The mine undertakes monthly environmental awareness campaigns to ensure all employees and contractors are made aware of the importance of environmental protection. The environmental talk topics for 2023 are presented below.

Months	Monthly talk topic 2023	Seasonal campaigns
January	Environmental aspects and impacts	
February	Good air quality is a human right	Air quality
March	Mining impacts on air quality and the mitigation measures thereof.	
April	Conservation of water resources	Water
May	Tharisa Minerals' authorised water uses	
June	Impacts of mining activities on water quality	
July	Causes of sedimentation in mining	Sedimentation
August	Impacts of sedimentation on the environment	
September	Preventing sedimentation	
October	Impacts of wasting energy	Energy
November	Reducing energy consumption	
December	Promoting green energy	

Social

Safety

My health is my wealth

At Tharisa, the holistic wellbeing of our employees is a priority to us, and good health goes beyond the physical. Tharisa takes mental health and social wellbeing very seriously. To achieve this state of holistic wellbeing, we conduct annual medical assessments via our medical surveillance programme that helps us screen the physical health of our employees and their ability to perform their roles and provide appropriate treatment where needed. In an effort to raise the importance of overall health, we have established an EAP within our wellness department with dedicated professional therapists and social workers who are trained to service and support the mental and emotional health of Tharisa Minerals employees and immediate family members because a healthy body is equivalent to a healthy mind.

Furthermore, we have dedicated Wednesdays to wellness, dubbed 'Wellness Wednesday', where various wellness topics are deciphered and circulated through our communication channels.

Wellness Team raising awareness on breast cancer detection and treatment for women

Cancer awareness campaign at MetQ

Each of us is responsible for returning home safely to our families and loved ones. This is why we have encouraged the focus on shaping a leading health and safety culture fully embedded in our working methods, counting on everyone's leadership, engagement and participation. Tharisa is committed to methods that reduce harm to employees and non-employees, to fulfil our commitment we have a safety, health, and environment management system, which assesses existing and new risks through policies and procedures.

Tharisa SHE management system

At Tharisa, we maintain a safe work environment for our employees and provide appropriate information and regular training to promote SHE awareness. However, the fundamental responsibility and duty lie with all employees to address SHE risks at work. The business relies on sound SHE monitoring systems, procedures, along with a competent and trained workforce. We are committed to constantly assessing our SHE performance and measuring our progress through detailed SHE performance indicators, while also committing to implementing international good practice.

Reaching safety milestones

Our people are our greatest assets and keeping them safe and healthy is our core value. The Group applies a safety management system which requires all assets under our operational control to have an effective safety management system. Continuous risk assessments are conducted to identify appropriate control measures for risk mitigation. Assessments of this nature can inform whether current standards, procedures, operating checklists and training lesson plans need to be updated.

To ensure compliance, we include a system of 'over-inspection' by supervisors and safety staff, followed by planned task observations to ensure employees are familiar with procedures and well-trained in executing their tasks. Further mitigation measures include visible leadership, leadership safety pledges, audits, ongoing training and on-the-job coaching. All the mandatory codes of good practice are adopted and implemented as part of our safety standards procedures. Scheduled and random SHE internal audits are conducted, and the findings from those audits help us pay attention to areas we might be lacking in and develop corrective action plans.

The following safety statistics were accomplished this reporting year through interventions and continuous monitoring of safety indicators:

FY23		FY22	
LTI	7	LTI	15
LTIFR	0.13	LTIFR	0.29

SafeTharisa – safe season trumps silly season

The health and safety of our people is a core value, where we strive towards attaining zero harm. This is supported by our SHE management system, which defines standards, codes, and tools to ensure that every employee is aware of their responsibilities. Leadership takes safety seriously. They lead by example and keeping the ethos of safety a priority.

The newly introduced SafeTharisa is an initiative aimed at focusing its operations and projects, including all managers, employees and contractors, on elimination of fatalities and serious injuries. The SafeLife Behaviours and fatal hazard codes are fundamental components of SafeTharisa.

Tharisa identified fatal hazard codes which were designed to address common causes of serious injuries and fatalities in the mining sector. The fatal hazard codes are implemented by order of priority, and when they are implemented and managed effectively, fatal and serious injuries can be eliminated from the operations.

At Tharisa, we have identified Safe Life Tools which will ensure zero harm to employees, contractors, visitors and the community.

SafeLife Behaviours

SafeLife Behaviours are designed to prevent fatalities by promoting safety practices that are based on past incidents. Violations of these behaviours are considered serious and involve intentionally committing unsafe acts while fully aware of the potential risks to oneself, others, or the Company.

Tharisa takes a proactive approach to preventing fatalities and protecting employees by taking severe disciplinary action for willful violations of the SafeLife Behaviours. This approach, implemented fairly and consistently, encourages everyone to prioritise safety and protects both employees and Company assets. These behaviours apply to all Tharisa employees, temporary employees, contractors, and visitors on Tharisa-operated sites.

Employees who violate these behaviours willfully will face disciplinary proceedings,. however, the severity of the penalty will be determined through a fair treatment process.

The ultimate goal of the SafeLife Behaviours is to ensure that everyone at Tharisa can work in a safe environment.

- Safety must not only be implemented in the workplace, but also at home.
- Systems – Environment – Equipment – People is interlinked to Stop-Look-Assess-Manage ('SLAM'). To ensure that all potential hazards are considered during the hazard assessment process, SEEP can be utilised. This will enable effective management and control of any unwanted events.

Visible coaching leadership

- Visible coaching leaders set a positive example by demonstrating the desired behaviours, work ethic and commitment to safety. They represent the values and expectations of the organisation and inspire employees to align their actions with those principles.
- Benefits include increased employee engagement, improved. safety performance, enhanced productivity, and the development of a strong and motivated workforce. By actively coaching and supporting their teams, leaders create a culture of collaboration, continuous learning, and shared accountability, which leads to long-term success.

Other tools we utilise at Tharisa include:

- T-Connect or Tharisa connect – An integral component of the Health and Safety management system.
- Incident cause analysis method ('ICAM') - A holistic systemic safety investigation analysis method.
- ISOMETRIX – This is an electronic management system that enhances document organisation, improves collaboration and communication among teams and departments, provides enhanced version control and audit trail, increases data security, access control and streamlines workflow to improve efficiency.
- Level 1 risk assessment – the SLAM technique is utilised to prompt employees to STOP work in case they perceive a potential threat to their health and safety.

Human capital

Talent management and retention

At Tharisa, our people are one of our biggest assets; they keep the wheel spinning – they are Tharisa. We embed our values and goals into a structured performance management system that allows for a link between the organisation's goals and individual departmental plans ('IDPs') and goals to exist. As a core value of care for our people, we believe in recognising and appreciating value add. The performance management system, in conjunction with various talent management tools, assists management in identifying a talent pool that will equip the organisation to grow and promote talent from within the organisation. Identified talent enter a mentoring relationship that provides them with additional support.

Our people development philosophy fosters a rich and diverse culture focusing on self-development, leadership development, performance and creating a pipeline of future leaders for Tharisa. We commit to creating a learning culture that drives engagement in ongoing professional development.

Our talent management framework boasts a high level of focus on high potentials through our vigorous talent mapping processes. We aim to ensure a talent pipeline is created for our people with targeted development opportunities and retention of our scarce and critical skills within Tharisa.

At Tharisa, we believe every employee is equally important. Therefore, we have structured developmental programmes that can assist all employees irrespective of their level of education. All educational assistance and development programmes are linked to career paths in various fields across Tharisa. Employees have an opportunity to complete an IDP, which helps them track their development. Key offerings that are provided at Tharisa are:

- Legal/compliance training including licences – job training and SOP training.
- Original-equipment manufacturers ('OEM') technical training – adult basic education.
- Mathematics and Science upgrade for Grade 12.
- Educational assistance (academic/technical qualifications).
- Mentoring and coaching.
- Learnerships.
- Management fundamentals – supervisory upskilling.

Breaking Stereotypes – Tharisa Women in Mining

Compensation and benefits

Tharisa offers competitive benefits through provident funds and medical aid options.

Tharisa also recognises that people work for more than monetary rewards. Therefore, the reward approach must integrate all the reward elements i.e., total reward. The cornerstones of the approach to monetary reward are competitive reward and pay for performance.

Beyond monetary reward, emphasis is placed on recognition through the culture and values programme. The programme focuses on recognising the efforts of individuals and business teams in meeting business goals and reinforces the behaviours aligned with our values and leadership principles.

Our core principles are to:

- Enable the attraction, retention and engagement of high-performing employees.
- Inspire and motivate people to outperform against the business strategy, goals and targets.
- Drive, reward and recognise performance excellence and innovation by significantly differentiating rewards for top performers i.e., pay for performance.
- Give effect to the Remuneration Committee's direction on fair, responsible and transparent remuneration.
- Support the vision by empowering the attraction and retention of the right talent.
- Correlate directly with the growth plans, financial and overall performance of the business.
- Review and benchmark salary scales by professional in-country service providers to ensure the Company remains competitive in diverse markets.

Diversity and inclusion the Tharisa way

Diversity and inclusion are celebrated and promoted at Tharisa. Differences such as life experiences, gender, sexual orientation, marital or civil partner status, gender reassignment, race, religion or belief, colour, nationality, ethnic or national origins, disability, age and upbringing unite us with one another underpinning our diverse workforce.

In this modern society diversity and inclusivity within any sector is important, and more particularly in the mining sector. Tharisa prides itself on its diverse culture and inclusive nature, and this is supported by our policies such as:

- Diversity and Inclusion Policy Statement; and
- Employment Equity Policy and Procedure.

At Tharisa, we focus on our similarities more than our differences – we are family. We believe that our differences tighten the bonds between our employees and customers. This uniqueness enables us to offer the business and our customers different skills, ideas, approaches and expertise. To support this, Tharisa strives to create an inclusive environment where our people are involved, respected, connected, encouraged, cared for and welcomed. We want every unique person working for Tharisa to feel they have a valued contribution to make a success of the business.

We thrive through our diversity

Harmony and unity at Tharisa

Among other things, we achieve harmony and unity through the following:

- We create an environment where people feel involved, respected, valued, trusted, connected and empowered.
- All our people have opportunities for growth and development.
- We create relationships of mutual trust and respect.
- We respect and celebrate the variety of local cultures, people and ideas in Tharisa.
- We leverage our differences to achieve better business results.

- Our workforce will reflect our customer base and the communities in which we work.
- We are proud to work for Tharisa.

Holistic Wellness

At Tharisa, people are our greatest asset. Therefore, we aim to assist and care for our fellow employees with a clear wellness strategy. A well-established referral structure and allocating the necessary resources for employees to feel valued, supported, heard, safe and taken care of.

As part of the Wellness department's support structure, we have registered professionals on site and an external company whom we partner with to support our employees through EAP and counselling services. The need and value of this platform is supported by the numbers, a total of 634 sessions were held with employees and contractors during the financial year.

Our EAP services include:
- Anxiety and stress.
- Grief and bereavement.
- Child-related concerns.
- Suicidal ideology due to depression.
- Domestic violence, abuse and gender-based violence.
- Family and marital concerns.
- Financial planning and guidance.
- Illness-related concerns.
- Sexual assault.

Sleeping disorders.
- Substance and/or alcohol abuse.
- Traumatic events.
- Work-related concerns.
- Life after employment.
- Personal wellbeing.

Social Stewardship

Tharisa is committed to the socioeconomic upliftment of our employees and communities in which the mine operates. We understand the importance of building trust and being transparent helps us attain and maintain our social licence to operate.

We strive to minimise potential negative social impacts while encouraging opportunities for the local communities we operate within. Tharisa will continue its commitment to community initiatives through its SLP and CSI to address unemployment, alleviate poverty, provide basic infrastructure, education and development needs – bridging the backlog of government initiatives.

A chance to get to know our communities

Tharisa Minerals is situated in the Bojanala District Municipality within the Rustenburg Local Municipality, close to the small town of Marikana. The mine's immediate neighbour is the community of Mmaditlhokwa. Approximately one-third of the employees at Tharisa Minerals and the mining contractors are from this community.

Our strategy for host communities' social and economic progression is aligned and informed by the local municipality's integrated development plan ('IDP'). It is translated into action through local initiatives incorporated into our SLP.

Key municipal initiatives include:
- Local economic development projects.
- Bursary awards to local qualifying Grade 12 students.
- Internships and bursaries.
- Work-integrated learning opportunities.
- Apprenticeship and 'vac' work opportunities for the local youth.

Total SLP/CSI spend

Total amount spent on SLP	R18 561 202
CSI spent	R8 501 663
Infrastructure development	R9 502 487

We stay connected to our communities (partners)

Tharisa Minerals prefers to work directly with its host communities rather than through charitable organisations. In this way, the Company engages meaningfully, directly and intimately with these communities.

Within Ward 32, the municipal area where the mine operates, there are several villages and small holdings. This has resulted in a diverse range of stakeholders, from employee families to farmers. The Group participates in structured engagement with small farm owners, and these engagements are hosted separately due to their differences and diverse needs and cultures.

Since its establishment, the task team has been able to compile feedback and presentations to the DMRE on risk assessment within the community, with wide community participation. Community commitment and support are key as local stakeholders know the issues in their community and how best to address them while accounting for our social licence to operate. People and community remain at the heart of our values. We are open to engaging with our community to help secure academic and economic empowerment.

Social labour plans and community social initiatives

This past financial year, our focus was on education, portable skills training, telecommunication, healthy living, and taking care of vulnerable people. The table below summarises our input towards the education system and reduces the literacy gap.

Community Initiatives	FY23		FY22	
	Beneficiaries	Status	Beneficiaries	Status
AET	51	Completed	116	Completed
Learnership	7	In progress	20	In progress
Bursaries	6	In progress	2	In progress
Internships (external)	18	In progress	42	In progress
Portable skills	25	Completed	45	Completed
Enterprise development	19	In progress	18	Completed
Total	126		243	

Tharisa aims to recruit from the local communities and surrounding areas where possible. To this end, several programmes have been implemented to train the youth in the communities to provide the necessary skills to make them employable, not only by Tharisa Minerals but also by other mines in the area.

During FY2023, many community members benefitted from basic numeracy and literacy training provided by Tharisa Minerals at no cost.

Upon completing their training, these learners will qualify as fully fledged artisans. The interns are recently qualified graduates who require workplace experience before entering the job market, and Tharisa can offer coaching advice for job seeking and interviews.

Being a highly mechanised operation, the Tharisa Mine is not labour-intensive, making it impossible for Tharisa Minerals alone to meet all the employment needs of the local communities. A database from which people are identified for recruitment and training interventions has been established by Tharisa Minerals in collaboration with the local communities and is continuously updated.

Our procurement traditions

Mining Charter Compliance

At Tharisa, we treasure our suppliers and partners who provide their goods and services to support the successful functioning of our operations. We also pride ourselves on inclusive procurement because charity does begin at home. We, as Tharisa, ensure our continued compliance with relevant South African legislation and the Mining Charter. To proving our commitment to equality and inclusion, a total of R2 270 986 010 was spent on HDP, Women and B-BEE Compliant companies.

Mining goods

Category	Spend value		Spend target	Spend target vs. actual		Variance (2023)
	2023	2022		2023	2022	
HDP	**R671 428 665**	R1 210 465 707	21%	**30%**	50%	**9%**
Women	**R240 179 892**	R459 789 752	5%	**11%**	19%	**6%**
B-BBEE compliant	**R1 569 420 907**	R1 940 657 371	44%	**69%**	81%	**25%**
Total spend	**R2 270 986 010**	R2 408 563 589	70%	**109%**	–	**–**

Although we did not meet all our service good targets during FY2023, the variation is minimal. To remediate this in the coming years, we have invested in providing access to quality higher education to the youth in our host communities and provide skills training to our existing employees.

Service goods

Category	Spend value		Spend target	Spend target vs. actual		Variance (2023)
	2023	2022		2023	2022	
HDP	**R1 132 439 820**	R1 100 586 650	50%	**48%**	47%	(2%)
Women	**R239 967 970**	R278 273 276	15%	**10%**	11%	(5%)
Youth	**R74 773 328**	R46 077 506	5%	**30%**	6%	(2%)
B-BBEE compliant	**R2 046 938 994**	R2 321 856 257	10%	**86%**	98%	76%
Total spend	**R2 378 193 794**	R2 377 975 733	80%	**–**	–	–

Enterprise and supplier development spend with community

The primary purpose of the B-BBEE Act and the Codes of Good Practice is to address the legacy of the past and enhance the current and future economic participation of black people in the South African economy. Enterprise and supplier development (ESD) is one of the five B-BBEE scorecard elements and codes. ESD is a component of preferential procurement which seeks to strengthen and diversify organisation's supply chain, while stimulating economic transformation.

At Tharisa, we spent a total of R18 977 020 acquiring supplies from 19 black-owned companies in FY2023.

The case studies depict some of the initiatives undertaken during FY2023

These shoes were made for walking…to school

As the schooling calendar kicked off this year, Tharisa's SLP and Transformation department accompanied by ward 32 councillor and the Marikana South Africa Police Service (SAPS), embarked on a school visit to hand over school shoes to learners in Marikana Full- Service Primary and Areaganeng Secondary Schools in Marikana West.

One of Tharisa's core values is 'care', this being demonstrated by ensuring that the learners of 2023 receive the care their feet need. The donation comprised 99 pairs for the primary and 48 pairs for the secondary school.

Both Principals of the schools conveyed a message of gratitude to Tharisa for the generous donation and implored them never to stop the good work of supporting the local communities. They also emphasised how this donation will help reinstate confidence in its learners and it will push them to attend classes.

In the remarks, Tharisa emphasised the importance of the culture of learning and reiterated how delighted it is to contribute to the empowerment of these learners and hope this donation will improve their self-esteem.

Mining is finite – that is why we priorities portable skills

Mining is finite, at some point the ore will deplete and the mine will cease to exist. In our effort to not leave our host communities as ghost towns, we take steps to alleviate this by providing portable skills training to our employees. Portable skills training equips employees and communities with skills that are outside the mining industry. Skills development remains an integral part of Tharisa, and the dedicated SLP team strives to meet commitments.

In total, 11 employees recently attended hospitality training for two weeks at the Tharisa conference centre. The training entailed food handling, maintaining proper hygiene, baking and basic legislation aligned with hospitality. All the candidates completed the training and were awarded certificates in a closing ceremony.

Two generations of Tharisa

Liana Omphile Masilo is a 23-year-old Electrical Engineer from the Maditlhokwa community in Marikana. She graduated in September 2023 from the Vaal University of Technology.

Her mother was a Tharisa employee for over 10 years until her retirement in 2023. Liana is the first person in her bloodline to attend and graduate from an institution of higher education – breaking generational chains and steering a path for those who will come behind her.

When we spoke about the benefits she has received from the Tharisa bursary programme, Liana expressed immense gratitude for the opportunity awarded to her by Tharisa. *'This opportunity showed me that I had the potential to achieve whatever I want…anything is possible only if you put your mind to it – just be patient.'*

Liana is a Processing Instrumental intern and would like to study further to obtain her Advanced Diploma in Electrical Engineering and work for Tharisa Minerals.

Keeping up with the digital age

Technology has become integral to our daily lives, influencing various spheres, including education. The collaborative effort between Tharisa and Enaex saw the donation of eight interactive boards valued at over half a million rands to Marikana Primary School.

The donation ceremony took place on Thursday, 29 July as the principal of Marikana Primary received the interactive boards on behalf of the school. The handover ceremony was attended by both the Tharisa and Enaex teams including their executives, respectively.

These innovative tools are set to change the teaching and learning experience, offering a wide range of benefits that extend beyond the traditional classroom setup. The interactive boards will facilitate a more interactive and engaging learning experience, allowing teachers to incorporate multimedia and interactive tools in their lessons.

The first to ever do it

Meet Thabang William Mbhele, a 23-year-old male from the small town of Modderspruit in the Bojanala District Municipality, North West province. He is in the final year of his Mining Engineering degree at the University of the Witwatersrand (Wits) and is one of the beneficiaries of the Tharisa bursary programme.

Our relationship with Thabang began in 2018 when he was selected among high-performing students at Marikana High School to receive funding from the Company. When we sat down with Thabang and asked him what his plans were after matric before his interaction with Tharisa, his response was, *'I come from a community where higher education is a far-fetched dream; once you get your matric you look for a job. I lacked motivation because I didn't know anyone in my immediate family or circle that had gone to university'*.

When asked what he has learned through this experience, Thabang was not shy about sharing how going to university has introduced him to new challenges and moulded and prepared him to face the real world. *'Going to university has introduced me to the opportunity to learn and dream bigger, thanks to Tharisa'*.

His goals for the future include branching into rock engineering and working for Tharisa Minerals.

Task Force on Climate-related Financial Disclosures ('TCFD')

Tharisa is a dual-listed entity, listed on the JSE and the LSE. In accordance with the UK Financial Conduct Authority ('FCA') Listing Rules, entities listed in the UK must disclose in accordance with the TCFD recommendations and disclosures from 2023 onwards. In compliance with this requirement, Tharisa has for the first time referenced our integrated annual report against the recommendations and disclosures in compliance with TCFD. We aim to enhance our disclosures in the coming financial years.

The table below provides our disclosures.

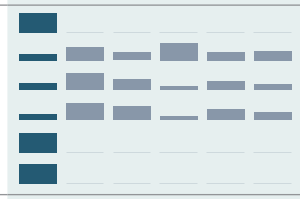
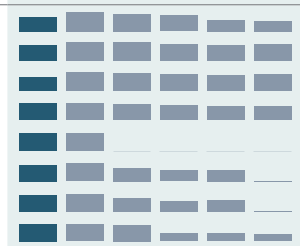
Task Force on Climate-related Disclosure (TCFD) recommended disclosures

Governance: Disclose the organisations governance around climate-related risks and opportunities		
(a)	Describe the board's oversight of climate-related risks and opportunities	**FY2023:** • Sustainability Letter: Page 4. • Key Focus Areas and Decisions of the Board During FY2023 Page 108. • Climate Change and Sustainability Committee: Page 112. • Climate Change Governance: Page 114.
(b)	Describe management's role in assessing and managing climate-related risks and opportunities	**FY2023:** • Why invest in Tharisa: Page 1. • Principal Risks and Uncertainties: Page 50. • ESG Principles and Commitments: Page 54. • Climate Change Governance: Page 114.
Strategy: Disclose the actual and potential impacts of climate-related risks and opportunities on the organisations business, strategy, and financial planning where such information is material		
(a)	Describe the climate-related risks and opportunities the organisation has identifies over the short, medium, and long term	**FY2023:** • Our Strategy: Page 2. • Sustainability Letter: Page 4. • Principal Risks and Uncertainties: Page 50. • United Nations SDGS: Page 56. • Climate Change: Page 60.
(b)	Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning	**FY2023:** • Sustainability Letter: Page 4. • ESG Principles and Commitments: Page 54. • Financial Provision: Page 64.
(c)	Describe the resilience of the organisation strategy, taking into consideration different climate-related scenarios, including a 2° Celsius or lower scenario	**FY2023:** • Why Invest in Tharisa: Page 1. • Sustainability Letter – From mine to megawatt: Page 4. • Climate Change Governance: Page 114.
Risk management: Disclose how the organisation identifies, assesses, and manages climate-related risks		
(a)	Describe the organisation's process for identifying and assessing climate-related risks	**FY2023:** • Principal Risks and Uncertainties: Page 50. • New Business Committee: Page 112.
(b)	Describe the organisation's process for managing climate-related risks	**FY2023:** • Environmental management: Pages 58.
(c)	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisations overall risk management	**FY2023:** • How Tharisa creates shared value: Page 16. • Principal Risks and Uncertainties: Page 50. • Climate Change: Page 60.
Metrics and targets: Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material		
(a)	Disclose the metrics used by the organisations to assess climate-related risks and opportunities in line with its strategy and risk management process	**FY2023:** • Our Strategy: Page 2. • Principal Risks and Uncertainties: Page 50.
(b)	Disclosure Scope 1, Scope 2 and if appropriate Scope 3 GHG emissions, and the related risks	**FY2023:** • United Nations SDGS: Page 56. • Climate Change: Page 60.
(c)	Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	**FY2023:** • Sustainability Letter: Page 4. • Climate Change: Page 60.

Six-year ESG data

Human resources (Tharisa Minerals)	Number of employees including contractors Contractors HDSA HDSA (Top Management Paterson Grade F) HDSA Management (Senior Management Paterson Grade E) Women Lost days due to labour action AMCU NUM Solidarity Number of grievances lodged and resolved Employee turnover
Safety	Number of fatalities Number of medical treatment cases Number of lost-time injuries LTI End of year lost-time injury frequency rate (LTIFR) Total recordable case frequency rate (TRCFR) Fatal injury frequency rate (FIFR)
Health	Number of employees and contractors voluntarily tested for HIV/AIDS Number of employees who tested positive for HIV/AIDS Total number of employees who know their HIV status HIV/AIDS prevalence rate among employees and contractors Number of employees screened for TB/silicosis (via medical surveillance programme) Number of employees and contractors who underwent hearing tests (via medical surveillance programme) Occupational diseases (number of new silicosis) Total number of new cases of noise-induced hearing loss (NIHL) Number of employees who attended wellness days
Environment	Waste rock (Mm^3) Tailings Volume(Mm^3) Reef mined (Mt) Total electricity consumption (MWh) Total energy consumption (GJ) Total CO_2 emission (SCOPE 1) (tCO_2e) Total CO_2 emission (SCOPE 2) (tCO_2e) Total CO_2 emission (SCOPE 3) (tCO_2e) Cumulative rehabilitation provision (US$m) Total water consumption (m^3) Number of significant environmental incidents Diesel used (m litres) Explosives used (t) Domestic waste (t) Hazardous waste (used oil) (kl) Hazardous waste (other) (t) (contaminated oil and lead cupels and oil rags)
Training and development	Employees and contractors received induction Number of employees and community members on AET programmes Interns and graduates Employees awarded study assistance Total spend on training (US$m)

** Unless otherwise indicated the data refers to Tharisa Minerals as Karo is still in development*

Six-year trend	2023	2022	2021	2020	2019	2018	
	**4 261**	3 712	4 412	3 082	2 826	2 430	
	2 327	1 763	2 581	1 346	1 079	758	
	94%	94%	92%	92%	91%	90%	
	100%	100%	100%	100%	100%	60%	
	69%	69%	50%	47%	44%	44%	
	26%	24%	23%	22%	21%	20%	Appointment of black female as Group HR Director
	0	0	0	0	0	0	
	24%	30%	29%	32%	51%	65%	
	40%	17%	14%	12%	9%	19%	More employees have left AMCU
	8%	19%	27%	29%	n/a	n/a	Solidarity only recognised from 2020
	30	7	0	0	0	0	
	268	309	150				
	**1**	0	0	0	0	0	Fatality occurred on 21 October 2022
	8	17	10	22	11	12	
	7	17	11	4	9	6	
	0.13	0.41	0.34	0.09	0.27	0.18	
	0.29	0	0	0	0	0	
	0.02	0	0	0	0	0	
	**3 876**	3 432	2 296	3 842	4 660	3 509	
	155	425	480	504	536	392	HIV/AIDS awareness and prevention measures are available
	3 999	0	0	0	0	0	
	13.94%	12.20%	13.00%	14.00%	12.00%	10.00%	
	3 094	3 014	7 608	4 715	5 784	6 768	
	7 934	8 281	5 140	4 715	5 784	6 368	
	0	0	0	0	0	0	
	1	3	0	0	0	0	
	257	756	n/a	n/a	414	400	
	**14.5**	19.4	17.6	16.1	11.1	10.8	
	1.15	1.37	1.39	1.25	1.19	1.26	
	4.18	5.51	5.38	4.97	4.63	4.85	
	213 390	208 750	200 256	185 807	175 329	169 480	
	2 241 328	2 238 622					
	123 555	135 077	98 815	82 829	84 000	2 600	
	221 926	221 275	212 272	182 343	156 200	162 800	
	5 197 034	5 071 106	4 926 110	2 285 059	2 235 100	2 068 500	Refer to Climate change section on page 60
	20.0	13.2	21.1	17.3	13.1	21.8	Rehab provided in ZAR (currency fluctuations)
	1 776 553	3 485 152	1 591 031	1 290 346	4 082 908	4 283 399	Reduced dewatering from the open pit following infrastructure initiatives developed in previous years
	4	4	0	0	0	0	
	42	42	40	38.2	29	28	
	14 145	15 689	18 272	15 763	10 597	11 878	
	674.41	863.09	629.14	637.4	697.6	525.9	Focus on waste recycling over the reporting year
	544	458	393	358	330	83	As a result of increased contractors on site
	2 488.83	2 109.56	672	356.4	258.9	271	Commissioning of Vulcan Plant
	**6 216**	6 968	6 439	7 289	5 343	4 190	
	66	114	60	275	224	82	
	72	32	45	40	24	21	
	62	36	43	58	20	9	
	1.9	2.3	2.7	3.1	3.4	3.3	Training is changed in ZAR but reported in US$, exchange rate variations distort numbers

INDEPENDENT ASSURANCE STATEMENT TO THE MANAGEMENT OF THARISA PLC

INTRODUCTION

IBIS Environmental Social Governance Consulting Africa (Pty) Ltd (IBIS) was commissioned by Tharisa PLC (Tharisa) to conduct an independent third-party assurance engagement in relation to the sustainability information in its Annual Report (the Report) for the financial year that ended 30 September 2023.

IBIS is an independent licensed provider of sustainability assurance services. The assurance team was led by Petrus Gildenhuys with support from Ibrahim Akoon, Megan Nair and Bradley Riley from IBIS. Petrus is a Lead Certified Sustainability Assurance Practitioner (LCSAP) with more than 25 years' experience in sustainability performance measurement involving both advisory and assurance work. This assurance engagement is the second consecutive sustainability assurance engagement conducted for Tharisa by IBIS.

ASSURANCE STANDARD APPLIED

This assurance engagement was conducted in accordance with AccountAbility's AA1000 Assurance Standard v3 (2020) ("AA1000AS") and the AA1000 Accountability Principles Standard (2018) ("AA1000AP") and was performed to meet the AA1000AS Type II Moderate level requirements.

RESPECTIVE RESPONSIBILITIES AND IBIS' INDEPENDENCE

THARISA

Tharisa is responsible for preparing their Annual Report and for the collection and presentation of sustainability information within the report.

Tharisa is also responsible for maintaining adequate records and internal controls that support the reporting processes.

IBIS

IBIS' responsibility is to the management of Tharisa alone and in accordance with the scope of work and terms of reference agreed with Tharisa.

IBIS applies a strict independence policy and confirms its impartiality to Tharisa in delivering the assurance engagement.

ASSURANCE SCOPE

The scope of the subject matter for moderate assurance in accordance with the AA1000AS assurance standard, as detailed in the agreement with Tharisa is set out below:

SUBJECT MATTERS IN THE ASSURANCE SCOPE

Adherence to the AA1000AP (2018) AccountAbility Principles of Inclusivity, Materiality, Responsiveness, and Impact.

The following selected disclosures relating to material ESG risks and opportunities for its South African entities:

ENVIRONMENTAL:

- Total Energy Consumed (GJ)
- Total Scope 1 Emissions (tCO2e)
- Total Scope 2 Emissions (tCO2e)
- Total greenhouse gas (GHG) emissions (tCO2e)
- Water use (Kl)
- Total amount of waste disposed and recycled (tonnes)
- Number of significant Environmental Incidents (Level 3 – 5)

HEALTH AND SAFETY:

- Lost Time Injury Frequency Rate (LTIFR)
- Total recordable case frequency rate (TRCFR)
- Fatal injury frequency rate (FIFR)
- Occupational diseases (Number of new Silicosis / TB / NIHL cases)
- Total number of employees who know their HIV status
- Total number of new cases of noise-induced hearing loss (NIHL)

SOCIAL:

- Total amount spent on corporate social investment (CSI), Socio-economic Development projects (SED) and Social and Labour Plans (SLP)
- Number of grievances lodged and resolved

The following assessment criteria were used in undertaking the work:

AA1000AP (AccountAbility Principles)

AA1000AP (2018) AccountAbility Principles criteria for Inclusivity, Materiality, Responsiveness, and Impact

Tharisa's internal reporting procedures

The completeness, accuracy, and validity of reported data

ASSURANCE PROCEDURES PERFORMED

Our assurance methodology included:

Testing

Testing, on a sample basis, the measurement, collection, aggregation, and reporting processes in place

Interviews

Interviews with relevant data owners to understand and evaluate the processes in place for maintaining information in relation to the subject matters in the assurance scope

Inspection

Inspection and corroboration of supporting evidence received electronically to evaluate the data generation and reporting processes against the assurance criteria

Assessing

Assessing the presentation of information relevant to the scope of work in the Annual report for consistency with the assurance observations

Reporting

Reporting the assurance observations to management as they arose to provide an opportunity for corrective action prior to completion of the assurance process

ENGAGEMENT LIMITATIONS

IBIS planned and performed the work to obtain all the information and explanations believed necessary to provide a basis for the assurance conclusions for a moderate level of assurance in accordance with AA1000AS. No limitations on access to information were experienced.

The procedures performed in a moderate assurance engagement vary in nature from, and are less in extent, than for a high assurance engagement. As a result, the level of assurance obtained for a moderate assurance engagement is lower than for high assurance as per AA1000AS.

ASSURANCE CONCLUSION

In our opinion, based on the work undertaken for moderate assurance as described, we conclude that the subject matters in the scope of this assurance engagement have been prepared in accordance with the defined criteria and are free from material misstatements.

KEY OBSERVATIONS AND RECOMMENDATIONS FOR IMPROVEMENT

Based on the work set out above, and without affecting the assurance conclusion, the key observations and recommendations for improvement are set out below.

IN RELATION TO AA1000AP (2018)

Inclusivity: Tharisa has publicly detailed its commitments and has incorporated these commitments into several policies and procedures that have been implemented across the group. The process of ensuring that Tharisa implements a stakeholder-inclusive approach is overseen by the Board with support from executive managers and operational teams. It is recommended that Tharisa advance to set relevant metrics to measure stakeholder engagement effectiveness, outcomes, and impact.

Materiality: Tharisa has an organisation-wide, ongoing process to manage sustainability risks, which is overseen by senior and executive management. It is recommended that Tharisa enhances its articulation of its materiality determination process in its reporting, especially as it relates to the evaluation and prioritisation of material sustainability topics.

Responsiveness: Tharisa has processes in place to develop responses related to material topics and communicate them to stakeholders. The processes are differentiated according to stakeholders. It is recommended that Tharisa formalize and codify some of its practices for responding to stakeholders to ensure that the process is widely communicated and understood across the organization.

Impact: Tharisa has processes in place to understand, measure, evaluate and manage its impacts, which are integrated into its wider organisational management processes. It is recommended that Tharisa enhances its articulation of its material impacts to include its potential negative impacts and ensure that its SDG contributions are robust. This may enhance the strategies implemented for impact management.

IN RELATION TO THE SELECTED DISCLOSURES

It was observed that, systems and processes are in place to provide source data related to the selected disclosures assessed. The increase in disclosures subjected to assurance as well as the uptake of recommendations from the previous sustainability assurance cycle is commended. Formula and data entry inconsistencies identified during the final consolidation of the sustainability information, were subsequently adjusted and IBIS is satisfied with the accuracy of the final data in the assurance scope as presented.

A comprehensive management report detailing the findings and recommendations for continued sustainability reporting improvement has been submitted to Tharisa management for consideration.

Petrus Gildenhuys

Director

IBIS Environmental Social Governance Consulting Africa (Pty) Ltd

Johannesburg

12 December 2023

AA1000 Licensed Report 000-156/V3-GNIL2

The assurance statement provides no assurance on the maintenance and integrity of sustainability information on the website, including controls used to maintain this. These matters are the responsibility of Tharisa.

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