mining, global player,
ferrochrome, safety,
partnerships, JSE SRI index,
diversification, joint venture,
South Africa, communities,
empowerment, Mining Charter,
diversity, stainless steel,
cooperation, social responsibility,
assurance, producer, skills
profitability, loyalty, development,
sharing, stakeholders

Merafe Resources Limited
Integrated Annual Report 2011

MERAFE
RESOURCES

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Boshoek smelter, North West province

# Letter to stakeholders

We are pleased to present to you the annual report for the Merafe Group, which includes Merafe Resources Limited (Merafe), a company listed on the JSE Limited, and Merafe Ferrochrome and Mining Proprietary Limited for the year ended 31 December 2011. We published our previous annual report, for the reporting period ended 31 December 2010, in 2011.

The scope of this report includes Merafe, its subsidiaries and the Xstrata-Merafe Chrome Venture. There has been no significant change in our size, structure, ownership or products and there are no specific limitations on the scope or boundary of this report.

When we published our previous annual report the debate on what constitutes an integrated report, as recommended in the King Code of Governance Principles (King III), had just begun. Since then both the South African Integrated Reporting Committee (IRC) and the International Integrated Reporting Committee (IIRC) have released discussion papers on the subject and proposed frameworks. We welcome the opportunity this new approach offers us to break down reporting silos and provide a broader explanation of our performance, underpinned by a strategic focus, connectivity of information, a future orientation and an inclusive and responsible approach to stakeholders. We hope that we have succeeded in communicating concisely, while providing reliable, material information in our reporting. To ensure access to any additional information you may require, you will find references throughout this report that will connect you with further sources of information.

In addition to following the other recommendations contained in King III and the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (SAMREC Code) and the JSE Limited Listings Requirements, we have been guided by the Global Reporting Initiative's (GRI) 3.1 Guidelines in terms of measuring our progress towards sustainability.

Our annual financial statements are audited by KPMG Inc. In compliance with International Financial Reporting Standards (IFRS), an independent auditors' report on the financial statements contained in this report appears on page 123 of our annual financial statements.

In order to ensure that our stakeholders are provided with reliable information on our sustainability, we also engaged SustainabilityServices.co.za to provide independent third party assurance over the sustainability aspects of this report, in accordance with AccountAbility's AA1000AS Assurance Standards (Type II, Moderate), including an assessment of Merafe's ability to adhere to the principles of Inclusivity, Materiality and Responsiveness. Site visits were also conducted at the Lydenburg ferrochrome plant and Waterval Mine to review a set of 14 material sustainability indicators and drafts of this report were reviewed to assess the adherence of the Xstrata-Merafe Chrome Venture to the GRI G3.1 Guidelines (Application Level B+).

The process we adopted to determine the issues material to our business and our stakeholders is aligned with our organisational decision-making processes and our strategies. By applying the principle of materiality we determined which issues could influence the decisions, actions and performance of our organisation and its stakeholders. We refer you to the Operating context on page 4 of this report in which we describe the circumstances in which we operate, the key resources and relationships on which we depend, the key risks and opportunities we face and how material issues can affect our ability to create and sustain value over time.

Data is measured according to specific indicators throughout the report, particularly with reference to tables and graphs. Where we found GRI G3 indicators to be not applicable we have made reference to this within the GRI G3 Content Index table. Data is evaluated according to the policies, procedures, codes and guidelines that Merafe and the Venture have developed to meet international best practice. Where possible, data measurement is implicitly defined via units of measure. Additional information is available on request. There are no restatements or changes to information included in earlier reports.

We would welcome your feedback on our reporting and any suggestions you have in terms of what you would like to see incorporated in our report for 2012. To do so, please contact kajal@meraferesources.co.za.



*Chris Molefe*

Chairman



*Stuart Elliot*

Chief Executive Officer

## Forward looking statements

Certain statements in this report constitute "forward looking statements". Such statements involve known and unknown risks, uncertainties and other factors that may cause the actual results, performances, objectives or achievements of Merafe Resources Limited and its subsidiary companies, as well as the industries in which it operates, to be materially different from future results, performances, objectives or achievements expressed or implied by these forward looking statements.

The performance of the Merafe Group is subject to the effect of changes in commodity prices, currency fluctuations, uncertainty around the supply of electrical power, the risks involved in mining and smelting operations and the operating procedures and performance of the Venture. The company undertakes no obligation to update publicly or to release any revisions to these forward looking statements to reflect events or circumstances after the date of publication of these pages or to reflect the occurrence of unanticipated events.

# Organisational overview and business model

## Our goals

- To ensure our interests in the ferrochrome industry are profitable and sustainable
- To firstly continue growing our interest in ferrochrome and secondly grow through diversification

## Our business

The main business of Merafe, which is listed on the JSE Limited in the General Mining sector under the share code MRF, and our wholly-owned subsidiaries, is the production and sale of ferrochrome to the stainless steel industry through our 20.5% participation in the earnings before interest, tax, depreciation and amortisation (EBITDA) of the Xstrata-Merafe Chrome Venture (the Venture).

The Venture, which is the largest ferrochrome producer in the world, supplies stainless steel mills in Europe, America, China, Japan, Taiwan, Korea and South Africa.

It was formed in July 2004 when we pooled our chrome operations with those of Xstrata South Africa Proprietary Limited (Xstrata) while retaining ownership of our assets. The assets that we pooled in 2004 were the Boshoek ferrochrome plant which includes a smelter and the Motswedi pelletising and sintering plant, the Boshoek and Horizon mines and the Kanana UG2 plant. Since then we have increased our ferrochrome interests and our interest in the Venture by acquiring a 50% interest in furnaces 5 and 6 of the Wonderkop ferrochrome plant and the Kroondal Mine; a 26% interest in the Marikana Mine; and a 20.5% interest in Phases I and II of the Lion ferrochrome plant, the Bokamoso pelletising and sintering plant, Tswelopele pelletising and sintering plant, the Mototolo UG2 plant in Mpumalanga, the K1, K2, and EPL UG2 plants in the North West province and the Magareng Mine.

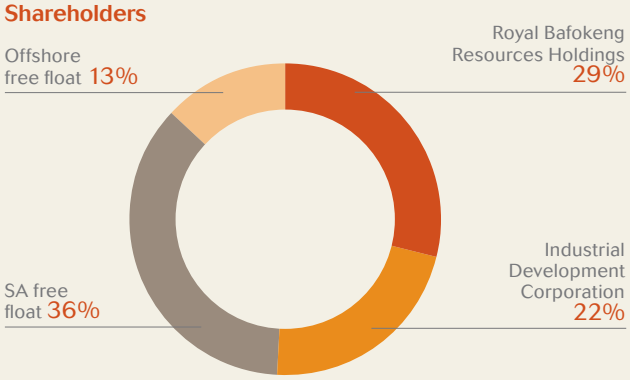
## Our key stakeholders

Our key stakeholders include our shareholders, comprising the Royal Bafokeng Nation (RBN) which, through its investment arm, Royal Bafokeng Resources Holdings (RBRH), has a 29% shareholding in Merafe Resources; the Industrial Development Corporation (IDC) with a 22% shareholding and a range of international and local investors; the communities in which we operate; our employees; trade unions; government; our business partners in the Venture; and our providers of debt.

## Our structure




### Shareholders



# Year in review

**R380mil**
EBITDA
+

**R158mil**
headline earnings
+

**R220mil**
cash balance
+

**best**
performer on JSE SRI index
+

**two**
fatalities
–

**15%**
improvement in TRIFR
+

**difficult**
global economic conditions reduce the demand for ferrochrome impacting revenue and sales
–

**agreement**
on Lion II and Magareng concluded and construction commenced
+

**R800mil**
debt facility negotiated and concluded
+

**on track**
with project Tswelopele and on budget
+

**17.5%**
decrease in average share price year-on-year
–

# Operating context and environment

South Africa is the world's leading producer of chrome ore and ferrochrome, with the capacity to produce 4.8 million tonnes of ferrochrome a year. The Venture's production capacity accounts for 42% of this tonnage, increasing to 48% when Phase II of the Lion ferrochrome plant goes into production in 2013. The South African ferrochrome industry is a leader in ferrochrome manufacturing technology and the Venture's proprietary Premus technology is the lowest-cost and most energy-efficient ferrochrome technology worldwide, making us the lowest-cost producer of ferrochrome in South Africa and, despite rising energy costs in South Africa, in the lowest quartile of the global ferrochrome production cost curve.

The South African ferrochrome industry also plays an important role in the South African economy, providing 200 000 direct and indirect jobs across the chrome value chain, investing R13 billion in beneficiation capacity since 2006, contributing R4.2 billion to South Africa's gross domestic product (GDP) and foreign exchange earnings of R36 billion, being the second largest customer of the South African energy utility, Eskom, providing between 7% and 8% of Eskom's revenue, and sourcing 90% of its key inputs, including technology and equipment, locally.

## Market dynamics

While we operate in South Africa, the price we receive for the ferrochrome the Venture produces is based on the European benchmark ferrochrome price, which is determined quarterly and is influenced by global market conditions and the market for stainless steel.+

### South Africa's share of world chrome reserves and production in 2011

37% of ferrochrome ore production
72% of chrome ore reserves

## Regulatory environment

In South Africa the mining and metals industry faces regulatory challenges that include numerous pieces of legislation, the revised Mining Charter and licences and permits with which the Venture strives to comply. Our internal and external audit processes monitor our compliance.+

As a JSE-listed company Merafe complies with the JSE Listings Requirements and we make every effort to apply the King Code of Governance Principles as set out in King III.+

The Lion ferrochrome plant at Steelpoort, Limpopo province, which this year was the lowest-cost producer of ferrochrome in the Venture. The plant uses the Venture's proprietary Premus technology



For more information see
www.meraferesources.co.za
US Investor presentation October 2011

For more information, see Market outlook section on pages 98 to 99

For more information, see Governance on page 26 and Environmental section on page 88

## Socio-political environment

Among the biggest challenges to the sustainability of our Venture are our relationship with the communities in which we operate, who are key stakeholders in our organisation, and ensuring that we retain our licence to operate. The demands of communities on mining companies are increasing as their members, and in particular the youth, become frustrated by the levels of unemployment and a lack of service delivery.

The uncertainty regarding the South African government's approach to the nationalisation of our industry has had a retarding effect on investment in it. The release of an internal ANC discussion document after year-end has provided some welcome clarification of the government's position and thinking.

## Material issues

We determined our current and future material issues by consulting with our internal and external stakeholders, identifying the issues that could influence the decisions, actions and performance of our company or our stakeholders and determining the relevance and significance of these issues in the short, medium and long term and any opportunities they present for the business.

We have also identified our internal and external risks and the level of these risks.+ On pages 10 to 11 we provide details of our mitigating actions to counter these risks.

## What the future holds for ferrochrome

All ferrochrome producing countries are experiencing electricity supply restrictions. The fact that our Venture has the power supply for its expansion projects approved puts it at an advantage; stainless steel has an historical compound annual growth rate (CAGR) of around 4.9% and forecasters predict it will continue to grow at 6.2% a year for the foreseeable future, with the demand for stainless steel underpinned by strong industrial production growth globally and particularly in China and India. This growth will challenge the global ferrochrome production capacity and any new production coming on line in the near future will be well-positioned to take advantage of the tight ferrochrome supply position. Phase II of our Project Lion comes on line in 2013.+



For more information, see Principal risks and uncertainties on page 10
For more information, see Future outlook on pages 98 to 99

# The colourful story of chrome

24

Cr

Chromium

51.9961 (standard atomic weight)

Chromium, derived from the Greek word for colour, was first discovered in 1762 in Siberia's Ural mountains. It is a chemical element (atomic number 24), which belongs to the category of transition metals. This hard, steel-grey coloured bright metal is placed in group 6 of the periodic table and is represented by the chemical symbol Cr.

While it is used in inks, dyes, as a pigment in paints that do not fade in the tanning process and chromium plating, most chrome is mined and beneficiated to create ferrochrome, the key ingredient in stainless steel.

The first patent for the use of chrome in steel was granted in 1865. It was not until the early 1900s, when the electric arc furnace was developed, that stainless steel was discovered.

Stainless steel is an alloy of iron with a minimum of 10.5% chromium. Chromium produces a thin layer of oxide on the surface of the steel which prevents corrosion of the surface and creates its stainless quality. The Venture's ferrochrome is used in the production of stainless steel and is exported to stainless steel mills around the world.



# 100 &

## years of stainless steel

From small beginnings a hundred years ago, stainless steel has grown to be an integral part of our lives. Used primarily for its corrosion resistance, stainless steel is also found in applications where strength, innovation and aesthetics are important.

The uses of stainless steel range from ordinary everyday household equipment like knives and light fittings to bridges, trains, water storage and surgical equipment.

In 2011 over 33 million tonnes of stainless steel was produced globally

**Estimated stainless steel usage**

- Building and construction 20%
- Metal goods (cutlery, medical appliances, catering, wire products) 23%
- Engineering 22%
- Transport 13%
- Tubular products 12%
- Electrical and electronic goods 10%





The unique surface of stainless steel has no pores or cracks to harbour dirt, grime and bacteria making it an ideal choice in the food and medical industries.

# Our operations




**Xstrata-Merafe Chrome Venture operations+**

1. Horizon Mine
2. Rustenburg ferrochrome plant
3. Boshoek ferrochrome plant and Boshoek Mine
4. Wonderkop ferrochrome plant and Bokamoso plant
5. Waterval and Marikana mines
6. Kroondal East and West mines
7. Thorncliffe Mine
8. Lion ferrochrome plant
9. Lydenburg ferrochrome plant
10. Helena Mine
11. Magareng Mine

| | Limpopo | Mpumalanga | North West |
|---|---|---|---|
| | **Limpopo province's** rich mineral deposits include platinum group metals, iron ore, chromium, high and middle grade coking coal, diamonds, antimony, phosphate and copper as well as mineral reserves like gold, emeralds, scheelite, magnetite, vermiculite, silicone and mica. | **Mpumalanga province** accounts for 83% of South Africa's coal production. Other minerals that are mined include: gold, platinum group metals, silica, chromite, vanadiferous magnetite, argentiferous zinc, antimony, cobalt, copper, iron, manganese, tin, andalusite, chrysolite, asbestos, kieselguhr, limestone, magnesite, talc and shale. | The mainstay of the **North West** province's economy is mining, which generates more than half of the province's GDP and provides jobs for a quarter of its workforce. The chief minerals are gold, mined at Orkney and Klerksdorp; uranium, mined at Klerksdorp; platinum, mined at Rustenburg and Brits; diamonds, mined at Lichtenburg, Christiana and Bloemhof; and chromite, which is mined in the Rustenburg area. |
| Population | ± 5.6 million | ± 3.6 million | ± 3.5 million |
| Share of SA population | ± 11.25% | ± 7.23% | ± 7.03% |
| Employed | ± 936 000 | ± 884 000 | ± 680 000 |
| Employed in mining sector | ± 55 000 – ± 6% of workforce | ± 52 000 – ± 6% of workforce | ± 114 000 – ± 17% of workforce |
| Unemployment rate | ± 21.0% | ± 30.4% | ± 28.6% |
| Gross domestic product (GDP) | ± R168 505 million | ± R169 973 million | ± R156 734 million |
| Percentage of provincial GDP attributed to mining | ± 22.8% | ± 19.6% | ± 24.0% |
| Provincial contribution to national GDP | ± 7.0% | ± 7.1% | ± 6.5% |
| **Our operations** | | | |
| Mines | | Thorncliffe, Helena and Magareng | Boshoek, Kroondal, Marikana, Horizon and Waterval |
| Ferrochrome plants | Lion | Lydenburg | Boshoek, Rustenburg and Wonderkop |
| UG2 plants | | Mototolo | Eland, EPL, Kanana, K1 and K2 |

*Source: StatsSA*

The assets owned by Merafe and contributed to the Venture are set out on page 2 under Our business and on page 124 in the Directors' report.

## The Xstrata-Merafe Chrome Venture

- We have 20 furnaces on five production sites with a total ferrochrome production capacity of 1 979 000 tonnes per annum (tpa), nine chrome mines and access to UG2 from six UG2 facilities
- Our major technologies include conventional, Outotec and Premus
- We are the lowest-cost ferrochrome producer in South Africa
- We have chrome resources in excess of 100 years, assuming current smelting capacity and taking into account chromite ore from the Venture's mines and its access to UG2 ore

The map (left) features our main operations in the Xstrata-Merafe Chrome Venture.

## The technologies we use and our smelting capacity

The Venture has a variety of technologies at its disposal which gives us the flexibility to meet changing operating circumstances and customer requirements. Our major focus is on energy efficiency. Our energy efficiency performance received a special mining sector award for its overall savings in energy consumption of >12% per tonne of alloy produced. This was achieved by means of a R2.4 billion investment in world-class energy-efficient furnaces at the Lion ferrochrome plant in Limpopo province and the Bokamoso pelletising and sintering plant in North West province. We are increasing our pelletising and sintering capacity through the construction of the new Tswelopele pelletising and sintering plant at the Rustenburg ferrochrome plant in the North West province which will provide a further improvement in efficiencies. The construction of Phase II of the Lion ferrochrome plant, employing Premus technology, will contribute substantially to the energy efficiency of our operations.

| Ferrochrome plants | Capacity | Technology | Mines |
|---|---|---|---|
| **Western limb (North West province)** | | | |
| Wonderkop | 553 000 tpa FeCr | Bokamoso pelletising and sintering plant using Outotec technology | Kroondal, Waterval and Marikana |
| | 6 furnaces | Conventional semi-closed furnaces | |
| Rustenburg | 430 000 tpa FeCr | | Kroondal, Waterval and Marikana |
| | 6 furnaces | Conventional semi-closed furnaces | |
| Boshoek | 240 000 tpa FeCr | Motswedi pelletising and sintering plant using Outotec technology | Horizon, Kroondal, Waterval and Boshoek |
| | 2 furnaces | Closed furnaces | |
| **Eastern limb (Mpumalanga and Limpopo provinces)** | | | |
| Lydenburg | 396 000 tpa FeCr | Premus – kilns | Helena, Thorncliffe and Magareng |
| | 4 furnaces | 3 closed furnaces and 1 semi-closed furnace | |
| Lion Phase 1 | 360 000 tpa FeCr | Premus – kilns | Helena, Thorncliffe and Magareng |
| | 2 furnaces | Closed furnaces | |

## Project pipeline

### 2011

- Waterval Mine development to 360 000 tpa completed
- K1 and K2 UG2 plants at Lonmin's Marikana operations completed
- 20.5% participation in Lion Phase II 360 000 tpa of ferrochrome capacity approved

### 2012

- Commissioning of Tswelopele pelletiser to produce 600 000 tpa of pellets

### 2013

- Commissioning of 360 000 tpa Lion Phase II increases ferrochrome production capacity to 2 339 000 tpa
- Magareng Mine ramp up to 1.2 mtpa

### 2014

- Completion of Horizon Mine development to 480 000 tpa

# Principal risks and uncertainties

&

Risk is an intrinsic aspect of business and is inseparable from opportunity. The risks set out in the table represent some of the principal uncertainties and trends which may have an impact on the Venture and/or Merafe's ability to execute its strategy effectively in the future. These risks have been assessed according to materiality, likelihood and residual risk after controls and have been separated into risks from the external environment and those internal to Merafe and the Venture

| Risk and impact | Mitigation |
|---|---|
| **Commodity price volatility** | |
| Negative impact on earnings. | Our preventive actions include managing production levels, including scaling down mining and smelting activities during downturns in global demand. In addition, close relationships with customers and the technical expertise to predict and plan for upturns and downturns in demand, help Merafe and the Venture to mitigate the impact of downturns and take advantage of the opportunities provided by upturns. We also lobby with government to protect the South African ferrochrome industry's R13 billion investment in beneficiation capacity. |
| **Fluctuation in currency exchange rates** | |
| Currency exchange rate fluctuations impact on our operating profit. | Our policy is not to hedge currency and we are therefore exposed to rand/US dollar fluctuations. Containing production costs by means of process improvement initiatives and investments to reduce costs, helps us mitigate the impact of currency fluctuations in favour of a stronger rand. |
| **Inability to obtain debt finance** | |
| A downgrading of Merafe's credit status could materially and adversely affect our financial position and growth plans. | At Merafe we maintain a strong balance sheet, low gearing and a good reputation and relationship with our bankers. We also have tangible assets to secure financing. We hold regular meetings with our bankers to proactively assess terms and conditions before potential problems arise. Merafe is currently well placed in this regard. Our partner in the Venture, Xstrata, takes a considered approach to debt management. |
| **Socio-political climate in South Africa** | |
| If the Venture does not win broad support for our activities from local communities, our projects could face delays, which could impact on operating profit, development costs and our reputation. Severe disruptions would impact on our profitability and our growth plans. | Merafe and the Venture invest in our social and labour plan commitments, which include local economic development, healthcare and education projects. We also invest in corporate social responsibility initiatives.+& Stakeholder engagement plays a very important role in establishing relationships with the communities in which we operate, as does the employment of members of the local communities in our operations. The Venture works with communities affected by our operations to identify and evaluate their needs and concerns at every stage of a project's life cycle, as well as the actual and potential impacts its operations have on these communities.+ |
| **Non-compliance and/or changes to laws, regulations, taxes, royalties and mining rights** | |
| Any non-compliance or changes in legislation can result in extensive disruption to operations, loss of revenue and fines. Loss of mining rights could affect our business. | The Venture maintains an extensive, transparent and open relationship with regulators and local, regional and national government bodies. The Venture keeps abreast of all changes to legislation and ensures any changes to laws or regulations are addressed and we closely monitor compliance with legislation. The Venture works in partnership with our employees and local communities in order to earn and maintain our social licence to operate. We maintain an extensive, transparent and open relationship with regulators and local, regional and national government bodies. We follow and implement any changes to laws or regulations and closely monitor compliance with legislation. We are on track to achieve the Mining Charter targets, including our employment equity, procurement and social development targets. Merafe and the Venture engage with SARS, DTI, DMR and other regulators on a regular basis.+ |
| **Investors' negative perceptions of the South African mining industry** | |
| This could impact on investors' appetite for investment in South African mining stocks. | Merafe focuses on maintaining relationships with our existing investors and building new relationships. To achieve this our team regularly travels to Europe, the United States and Asia to meet with and make presentations to European, American and South African investors and potential investors to address any concerns. We also keep investors informed through our website.+& |
| **Health of global economy** | |
| The possibility of a meltdown in the Eurozone could impact on South Africa and South African companies. | We need to maintain our position as the lowest-cost ferrochrome producer in South Africa and have the flexibility to react quickly to changing economic circumstances. |
| **Loss of key and skilled employees in Merafe and the Venture** | |
| Loss of key and skilled employees, particularly to competitors, could result in financial loss and reputational damage. | Our policy is to invest in future key contributors and to implement adequate notice periods and lock-ins through deferred bonus payments and share incentives. |
| **Empowerment credentials** | |
| Loss of empowerment credentials if Royal Bafokeng Resources Holdings Ltd (RBRH) sell their shares in Merafe. | The mining industry is governed by the Mining Charter which requires mining companies to have empowerment credentials. RBRH has been a shareholder in Merafe for over ten years. Merafe ensures RBRH is kept informed, regularly meets with its representatives and RBRH is represented on the board. |

For further information, see the Community section on page 82

Information on the impact on our operating profit of movements in the price of ferrochrome can be found in the Market outlook on page 98

| Risk and impact | Mitigation |
|---|---|
| **Operational risks** | |
| The Venture's operations are affected by a number of factors that are outside our control. These include the availability and costs of raw materials, water and power, unusual ground conditions, climatic conditions resulting from climate change (e.g. drought or flooding), interruptions to power supplies, congestion at ports, industrial action, environmental hazards, technical failures and incidents at its operations.<br><br>These factors could adversely affect our operating performance, production levels, unit costs and operating profit. | The Venture has in place a comprehensive programme to identify, understand and manage the risks that affect our business and our operations. We undertake an annual risk review, and the risk registers of Xstrata, Merafe and the Venture are regularly updated.+ |
| **Chrome ore** | |
| Chrome ore exports to China could undermine the South African ferrochrome industry and the beneficiation of chrome ore in South Africa. | The Venture and the ferrochrome industry is engaging with government to develop a solution that will support government's beneficiation and job creation strategies and ensure the sustainability of South Africa's ferrochrome producers.+ |
| **Cost control** | |
| The Venture's competitiveness and long-term profitability depend significantly on our ability to maintain low-cost efficient operations.<br><br>Above inflation increases in input costs may negatively impact Merafe's earnings. | We pride ourselves on being a low-cost producer. Cost performance is regularly reported to the Executive Committee and is a key management performance measurement. The Venture's development of lower-cost proprietary technology has played a significant part in cost reduction. We are also engaging with government regarding carbon taxes, electricity costs and steps to ensure the sustainability of the ferrochrome beneficiation industry in the future.+ |
| **Security of energy supplies** | |
| Lack of energy supply could impact on the Venture's ability to operate or threaten planned future expansion of our operations or the development of new mines. | The Venture has an ongoing programme to assess and monitor energy-related risks, including scenario analyses. We manage the risk through implementing energy efficiency plans and assessing the risks associated with energy supply at the design phase of our projects. Our investment in process technology to achieve efficiencies and reduce energy consumption has allowed us to become the lowest-cost ferrochrome producer in South Africa.+ |
| **Emissions and climate change regulation** | |
| There is uncertainty concerning carbon taxes and the interpretation and application of any legislation relating to these taxes in South Africa. They may have a material adverse impact on our ability to maintain profitability.<br><br>Water scarcity has also become a global issue and could in future affect the Venture's ability to operate. | The Venture continually engages with government and key policy makers to advocate a rational approach to carbon taxes.<br><br>We have made climate change issues a high priority and the Venture reviews climate change strategy regularly. We have reduced the carbon emissions attributable to the electricity we purchase by improving the energy efficiency of our operations and investigating the use of renewable energy sources. The Venture set itself a target of achieving a 5% reduction in energy intensity per tonne of product on our 2007 performance by 2012.+ The Venture's emissions are reported to the Carbon Disclosure Project (CDP).<br><br>The Venture has successfully taken steps to reduce its water consumption. |
| **Health, safety and the environment** | |
| The Venture's operations are subject to extensive health, safety and environmental (HSE) regulations and legislation and community expectations.<br><br>In South Africa HIV and AIDS and associated diseases remain the major healthcare challenges facing our industry.<br><br>Any breach of regulations or non-compliance with the Venture's own best practice standards in health, safety and environmental performance and community relations could affect our licence to operate.<br><br>If the Venture's employees suffer from the symptoms associated with HIV and AIDS, it could have a negative impact on the Venture's production levels and our profitability. | We give these three issues priority and significant resources are committed to providing a safe and healthy workplace, keeping our impact on the environment to a minimum and addressing the impact of HIV and AIDS on our employees and the communities in the vicinity of our operations.<br><br>All operations are regularly independently audited through the Sustainable Development Assurance Programme and they manage the risks that could affect the Venture's operations. |
| **Project development** | |
| The Venture's ability to develop our project pipeline and expand our operations with new, lower-cost operations will impact future revenues, costs and its reputation for successful project development. | Cost control is a key consideration in project development and the Venture has an excellent track record of delivering major capital growth projects on time and on budget. We have a comprehensive project approval process which governs project management at each stage of a project. Approval processes ensure that all risks are fully assessed and, where possible, are mitigated before the project can proceed to the next phase. |
| **Reserves** | |
| Our mine reserves decline as chrome ore is extracted and not all reserves may be mined as profitably as originally anticipated. In order to develop reserves, mining rights must be obtained for our chrome ore.<br><br>Successful exploration and development activities and access to new properties containing economically recoverable reserves are important to the Venture's future success. If it cannot obtain the necessary exploration and mining rights, our ability to develop reserves will be adversely affected. | The Venture annually updates the quantity and quality of our estimated proven and probable reserves to reflect the extraction of chrome, additional drilling or other data. Our policy is to ensure five years of proved ore reserves at any time.+ We continually investigate alternative sources of supply of chrome ore, the acquisition of additional reserves and the possibility of exploiting alternative seams within its existing mines, such as MG4. The Venture has also secured UG2 supply agreements with platinum producers. The Venture is well-positioned in terms of the conversion of its mining rights as set out in the Mineral Resources and Reserves section of this report.+ |

For more information, see Social and Environmental performance sections on pages 70 and 88, respectively

For more information, see Social performance pages 70 to 87

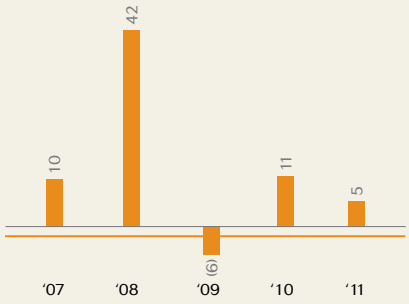
For more information, see the stakeholder engagement table on page 55

For more information, see the Mineral Resources and Reserves section of this report on pages 60 to 69

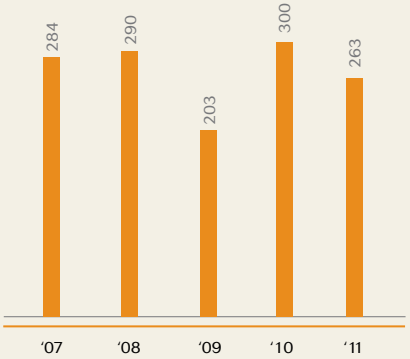
For more information see CEO's Review of performance against strategy on pages 16 and 17

# Five-year review

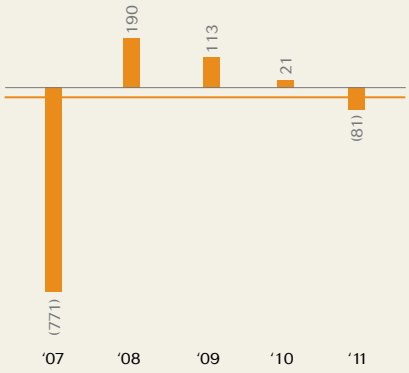
Basic earnings per share (cents)



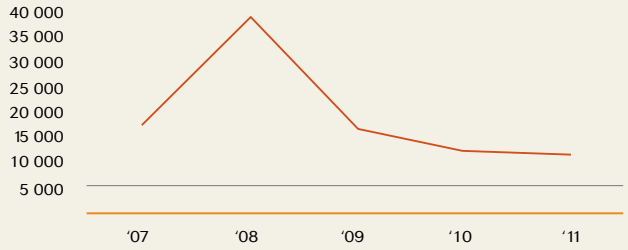

Attributable production tonnes (thousands)



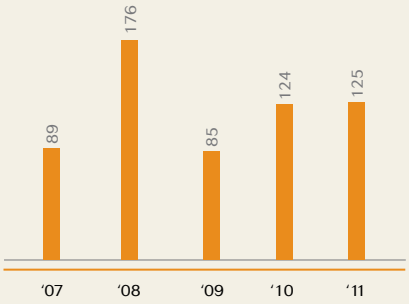

Net cash/(debt) in R millions



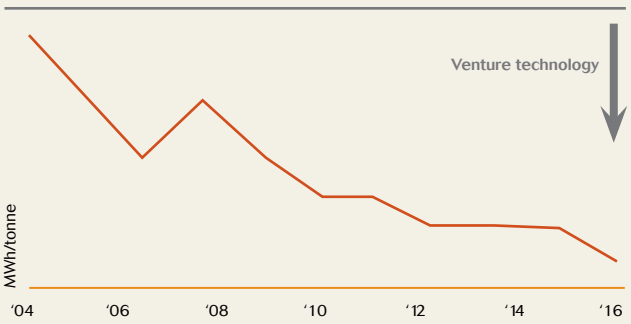

Water usage (Ml)




Average European benchmark ferrochrome price (USc/lb)

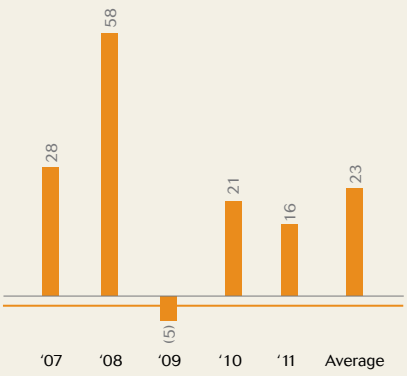



Average electrical energy efficiencies achieved by the Venture which illustrate continued improvement




This improvement represents more than 25% in energy efficiency over the past decade. The increase in energy consumption in 2007 – 2008 was as a result of reduced pellet availability when all the furnaces operated to meet increased demand.

EBITDA margin on revenue (%)




## Safety statistics

| | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|
| Fatality frequency rate (FFR) | 0.07 | 0.04 | 0.05 | 0.05 | 0.08 |
| Total recordable injury frequency rate(TRIFR) | 6.91 | 5.36 | 4.64 | 4.58 | 3.98 |

## The issues that are currently our most material issues

To make good decisions and take appropriate action an organisation and its stakeholders need to know what issues are material to the sustainability performance of the organisation. To determine our material issues we considered financial and non-financial information, the issues driving our sustainability and their impact on our stakeholders. A strategy session attended by our board members, executive directors and our management team, played a significant part in the determination process.

| Issue | Stakeholder impact | Possible impact on the business | Opportunities for the business |
|---|---|---|---|
| Safety | • Employees and their families<br>• Department of Mineral Resources (DMR)<br>• Shareholders | • Loss of skilled employees<br>• Loss of production impacting on profitability<br>• Negative impact on employee morale | • The Venture held safety summits among its own teams and with its contractors and has taken the lessons learnt from these summits and is using them to simplify procedures and improve training |
| Global economic uncertainty, rand and ferrochrome price volatility | • Shareholders<br>• Management<br>• Employees<br>• Communities<br>• Government (SARS) | • Positive/negative impact on demand for ferrochrome<br>• Positive/negative impact on profitability<br>• Depending on the state of the global economy and demand for our product, whether the volatility in terms of the rand/dollar exchange rate and the ferrochrome price is in our favour or otherwise, will have a positive or negative impact on all our stakeholders | • We cannot influence the rand/dollar exchange rate or the global economy and market demand dictates the price of ferrochrome. We need to contain costs to remain as competitive as possible. By investing in the Tswelopele pelletising and sintering plant and Phase II of the Lion ferrochrome plant we are increasing the energy efficiency of our operations which helps us to contain costs. The Venture has also found ways to reduce the costs of the reductants it uses in its furnaces and is always looking for and finding ways to further reduce costs |
| Chrome ore exports to China | • Shareholders<br>• Management<br>• Employees<br>• Communities<br>• Government (SARS) | • Reduction in ferrochrome sales to China as a result of SA chrome ore exports allowing China to grow its ferrochrome industry<br>• Decreased profitability | • The Venture and the ferrochrome industry is engaging with government with the aim of developing a solution that will support government's beneficiation and job creation strategies and ensure the sustainability of South Africa's ferrochrome producers<br>• See the CEO's Review of strategy section of this report on pages 16 to 17 for further information on review of performance against strategy |
| Power prices and availability | • Shareholders<br>• Employees<br>• Communities<br>• Customers | • Loss of sales due to being uncompetitive<br>• Loss of production due to power not being available and unable to grow business because unable to secure power supply for new projects | • The Venture's ongoing development and application of energy-efficient technology allows it to maintain its position as South Africa's lowest-cost producer of ferrochrome and therefore the most competitive SA producer<br>• The Venture engages with Eskom and has secured power supply for Lion II |
| Communities and our social licence to operate | • Shareholders<br>• DMR<br>• Communities<br>• Employees<br>• Local municipalities | • Dissatisfied communities embarking on action to remove our social licence to operate<br>• Reputational damage | • To resolve community social issues requires goodwill, commitment and leadership from business, communities, local government and the DMR. If this is addressed we can achieve a more sustainable environment for business and communities<br>• Consultation with communities is an essential part of the Venture's approach to doing business. See the Social performance section of this report on pages 70 to 87 for more information |
| Climate change | • All stakeholders | • Business continuity and profitability<br>• Health and safety<br>• Environmental aspects<br>• Regulatory aspects<br>• Our operations give rise to significant greenhouse gas (GHG) emissions both directly and indirectly. They are also exposed to the potential impacts of climate change resulting from GHGs | • Need to constantly engage with legislators, researchers and industry bodies and track and evaluate the situation and develop an improved awareness of and preparedness for the risks associated with climate change<br>• We are taking steps to reduce our carbon footprint and our impact on GHGs. These include the development of energy-efficient technology and research into the use of alternative sources of energy |
| Project execution | • Shareholders<br>• Management<br>• Employees<br>• Venture partners<br>• Communities<br>• Lenders<br>• Customers | • Loss of profitability<br>• Reputational damage | • The Venture's experienced project team has an excellent track record for delivering projects on time and within budget. Lion II and Tswelopele both use proven technology and the Venture has the skills to develop and operate this technology |



Workers in the metal extraction plant at Boshoek ferrochrome plant performing a visual inspection of moving parts in the plant

The ferrochrome we produce is a corrosion-resistant alloy of chrome and iron. The majority of our ferrochrome is used in the production of stainless steel, which is used in food production and storage, pumping and storage of acids, gas and oil, the storage and desalination of water, architecture, medical applications, cutlery and buildings.




The Venture, which is the lowest-cost ferrochrome producer in South Africa, has 20 furnaces on five production sites with a total production capacity of 1 979 ktpa, nine chrome mines with resources for at least 100 years (at our current smelting capacity) and access to UG2 from six UG2 facilities. We use conventional, Outotec and Premus technology in our plants.

# Chief executive officer's review of our performance against strategy

## Introduction

The diagram on this page is a graphic depiction of our strategic approach. Central to our strategy are our key strategic objectives of ensuring our current ferrochrome operations remain profitable and that we grow our ferrochrome interests organically or through mergers and acquisitions. Our next medium-term strategic objective is to grow through diversification. These objectives are underpinned by our commitment to ensuring we have a sustainable business that practises good corporate governance and in which people are empowered and we meet or exceed the targets set by the Mining Charter.+

I am pleased to be able to advise you that despite the many challenges presented by 2011 we had a profitable year.+ While we have provided you with some detail on the outlook for ferrochrome in the Future outlook section of this report, I can tell you that we expect stainless steel production to grow by between 5-6% over the next ten years. Ferrochrome is a vital ingredient in stainless steel.




## Our strategic focus – profitable ferrochrome interests

This year, our ability to deliver against our strategic objective of ensuring our interests in the ferrochrome industry are profitable faced a number of challenges.

First of all, a number of global issues, including the earthquake and ensuing tsunami in Japan, the Eurozone debt crisis, economic woes in the United States and geopolitical events, such as the Arab Spring, resulted in weaker market conditions which affected ferrochrome demand.

A further source of concern is the increase in South African chrome ore exports to China. South Africa is now the number one exporter of chrome ore to China. The majority of this ore is mined from the UG2 reefs in the platinum industry. These exports are advancing the development of the ferrochrome industry in China, displacing capacity in South Africa and undermining South African sales of beneficiated chrome ore in the form of ferrochrome. They are also contrary to the South African government's commitment to increasing the level of beneficiation in the South African mining industry and protecting our ore reserves.

The South African ferrochrome industry has brought this situation to the attention of government and is engaging with government to protect South Africa's chrome ore reserves and its mature chrome beneficiation industry. The ferrochrome industry's chrome ore value chain represents one of the most advanced and mature beneficiation success stories in South Africa.

Other challenges during the year under review included high power costs and industrial action, which is covered in more detail in the Operational and Governance sections of this report.+

The ferrochrome production table in this review indicates a 0.1% increase in global ferrochrome production this year. The Venture's ferrochrome production, affected by lower sales volumes in a relatively poor market environment, was 1 284 690 tonnes, which is a 12% reduction on 2010 production volumes. The increase in ferrochrome production in China (using mainly South African chrome ore) can be observed in this table.

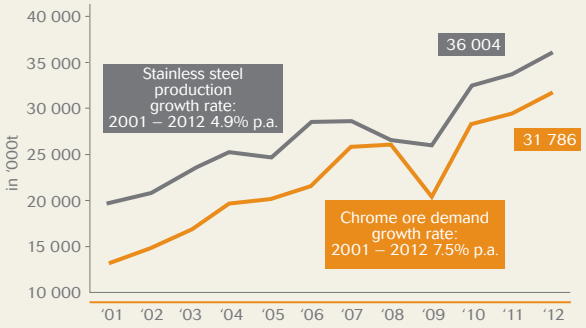
See page 37 of the Governance section.
See Economic performance section on page 46.

## China – Chrome ore imports by source

| | 2009 '000t | 2010 '000t | 2011 '000t | Change in % 2010/2011 |
|---|---|---|---|---|
| South Africa | 2 904 | 3 100 | 4 675 | 50.8 |
| Turkey | 1 287 | 1 933 | 1 612 | (16.6) |
| Oman | 688 | 902 | 645 | (28.5) |
| India | 414 | 389 | 439 | 12.6 |
| Pakistan | 296 | 512 | 440 | (14.0) |
| Albania | 220 | 363 | 357 | (1.6) |
| Iran | 255 | 350 | 330 | (5.7) |
| Zimbabwe | 31 | 160 | 212 | 32.5 |
| Madagascar | 112 | 115 | 86 | (25.4) |
| Australia | 139 | 201 | 208 | 3.9 |
| Philippines | 88 | 150 | 137 | (8.7) |
| Brazil | 75 | 77 | 60 | (21.2) |
| Kazakhstan | 175 | 243 | 94 | (61.3) |
| Others | 80 | 172 | 149 | (13.4) |
| **Total** | **6 763** | **8 666** | **9 444** | **9.0** |

*Source: Heinz Pariser*

Global chromite ore demand




*Source: Heinz Pariser*

&

South Africa has 72% of the world's chrome ore reserves (this figure excludes UG2. If UG2 is included it increases to 82%). The industry (including chrome mines and ferrochrome plants) provides over 200 000 jobs and contributes over R42 billion to South Africa's gross domestic product (GDP) annually. Its ferrochrome plants employ approximately 80 000 people



See the Operating performance section on page 46.

# Chief executive officer's review of our performance against strategy (continued)

In South Africa we were hit by rising production costs, which are discussed in the Operational section on pages 52 to 69. Despite cost increases that exceed mining inflation we managed to contain our cost increases at 14% year-on-year. As electricity costs continue to rise in South Africa the Venture's use of energy-efficient technologies plays an ever more important role in our ability to remain competitive globally. We remain the lowest-cost producer of ferrochrome in South Africa, but increasing costs, in particular electricity and the possibility of a carbon tax, are making it ever more challenging for us to remain competitive internationally.

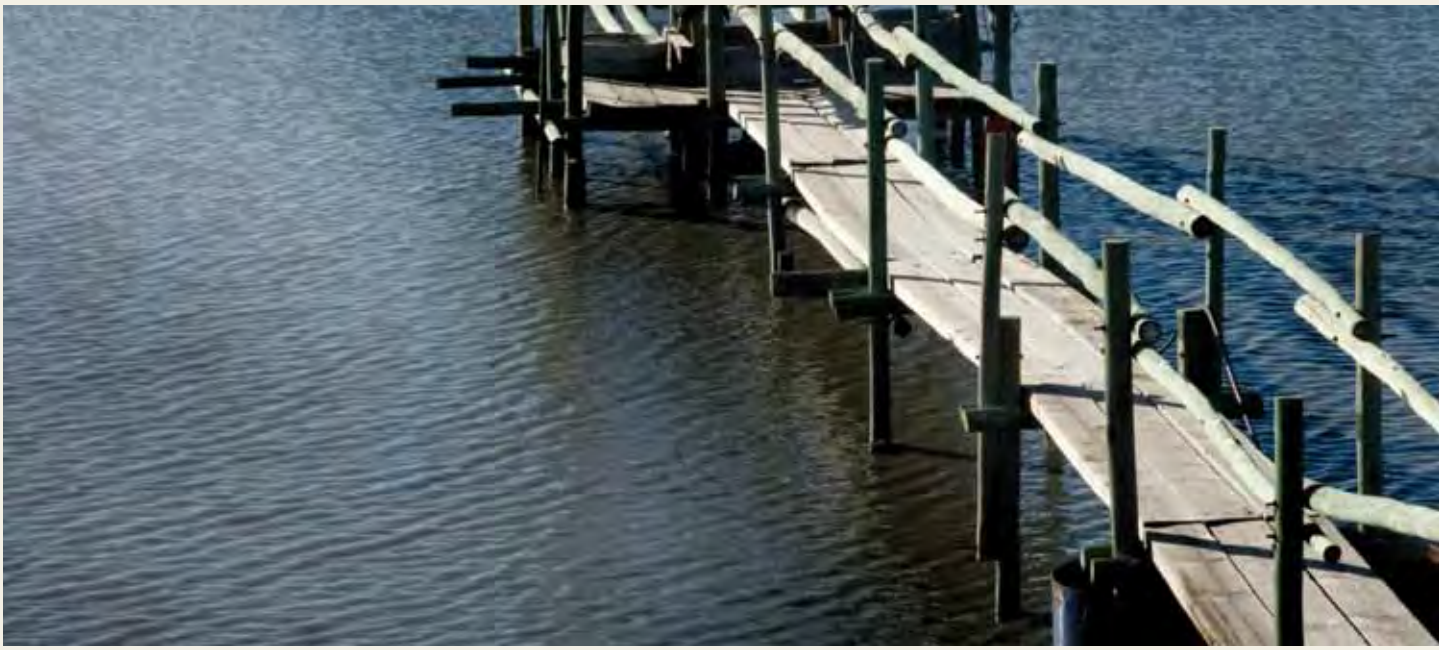
We welcome the announcement by the Minister of Finance that a revised policy paper on carbon tax will be published later this year for a second round of public comment and consultation.

While our interpretation of this preview is that Treasury is proceeding with caution, carbon tax rates will be lower and there will be a phased in approach over a long period, we have identified a number of issues that require further engagement with Treasury.

During most of 2011 the strength of the rand against the dollar also placed us at a disadvantage. However, towards the end of 2011 the rand weakened against the dollar, which helped offset our lower sales volumes.

Our latest investment in organic growth is in our 20.5% interest in the 360 000 tpa Phase II of the Lion ferrochrome plant, which will increase the Venture's total installed capacity to over 2.3 million tpa. Lion II is due to come on stream in time to take advantage of an anticipated window of opportunity beginning in 2014 when ferrochrome demand is expected to exceed supply. Power supply constraints and increasing costs mean that it is unlikely that there will be other investments in additional ferrochrome capacity in the next two years in South Africa. The contribution Lion II will make to our future sustainability is discussed in this report in the section Future outlook on pages 98 and 99.

Mergers and acquisitions are options we are ready to consider if suitable opportunities arise.



## Ferrochrome (FeCr) production between 2008 and 2011 and expected production in 2012

| | 2008 '000t | 2009 '000t | 2010 '000t | 2011 '000t | Change 11/10 in % | 2012 '000t (F) | % Change 12/11 (F) |
|---|---|---|---|---|---|---|---|
| Brazil | 187 | 113 | 172 | 144 | (16.4) | 152 | 5.7 |
| EU 27 | 356 | 158 | 325 | 343 | 5.6 | 387 | 12.9 |
| Russia, Turkey, Albania | 317 | 224 | 297 | 310 | 4.5 | 340 | 9.8 |
| India | 750 | 670 | 1 000 | 1 025 | 25 | 1 155 | 12.7 |
| Kazakhstan | 996 | 985 | 1 161 | 1 096 | (1.6) | 1 150 | 5.0 |
| South Africa | 3 169 | 2 317 | 3 591 | 3 282 | (8.6) | 3 300 | 0.6 |
| Zimbabwe | 152 | 74 | 166 | 180 | 8.2 | 220 | 22.2 |
| Others | 10 | 9 | 13 | 22 | 74.2 | 48 | 116.4 |
| Sub total | 5 937 | 4 550 | 6 724 | 6 401 | (4.1) | 6 752 | 5.5 |
| China | 1 284 | 1 510 | 2 166 | 2 500 | 13.0 | 2 800 | 12.0 |
| Total | 7 220 | 6 060 | 8 889 | 8 901 | 0.1 | 9 552 | 7.3 |
| Charge Cr | 3 675 | 2 579 | 4 068 | 3 743 | (8.0) | 3 806 | 1.7 |
| High carbon FeCr | 3 545 | 3 481 | 4 821 | 5 157 | 7.0 | 5 747 | 11.4 |

*Source: Heinz Pariser*

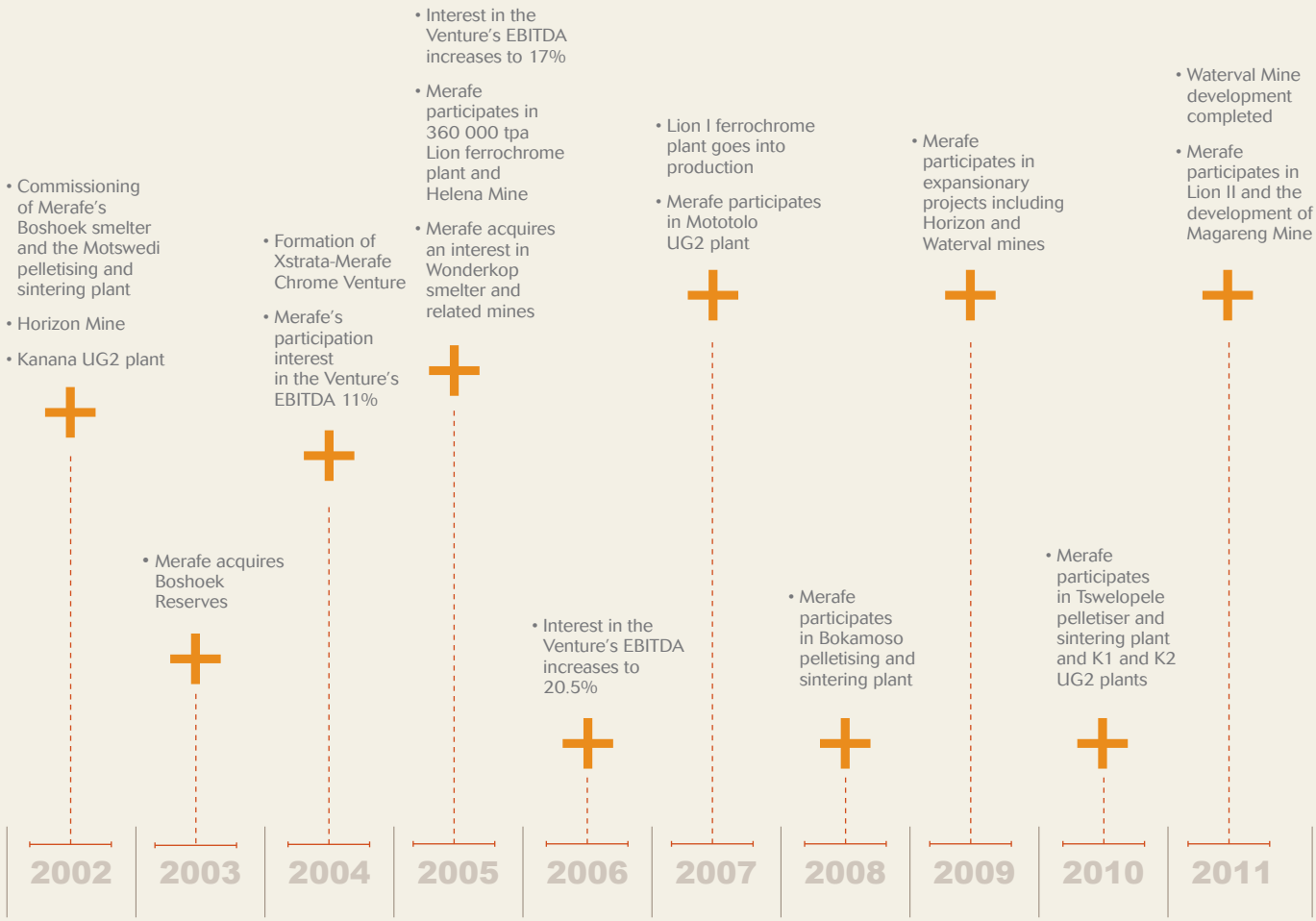
Maintenance work under way on the tailings dam at Boshoek ferrochrome plant in North West province



# Chief executive officer's review of our performance against strategy (continued)

## Organic growth and mergers and acquisitions

Our success at growing our interests in ferrochrome through organic growth and mergers and acquisitions is reflected in the timeline below:




The growth of Merafe's ferrochrome interests over the past 10 years

## Strategic focus – Diversification

We have made a substantial investment of time, effort and resources in pursuing this strategy and it is one of our key strategic focus areas for 2012 and 2013. Despite diversification being a strategic objective we will only consider investments that will be value-enhancing for our shareholders.

## Strategic focus – Sustainability

Ensuring the sustainability of our business is key to the implementation of our strategy. Our selection as a participant in the JSE's Socially Responsible Investment (SRI) Index every year since its inception in 2004, recognises our commitment to building a responsible business. We have also been recognised as a Best Performer every year since the Index began recognising Best Performers five years ago. This year, the threshold for recognition as a Best Performer was raised and we were one of only 22 companies to be recognised as Best Performers out of the 74 companies who qualified for the Index. To assess whether a company qualifies to participate in the JSE SRI Index its environmental, social and governance (ESG) policies, management practices and reporting are assessed against a rigorous set of criteria.

### Safety

Our biggest disappointment in 2011 was the two tragic fatalities in the Venture's ferrochrome operations during the first month of that year. My deepest sympathies to the families, colleagues and friends of Mr Zweni Abraham Mkhize of our Wonderkop plant and Mr Chaka Aubrey Letsoalo of our Lydenburg plant, who were both fatally injured.

After these tragedies, in addition to following the procedures that we always follow after a fatality, which are described on page 71 of the Safety section of this report, the Venture immediately held a safety summit with its ferrochrome and mining operations.+ The actions taken following this summit appear to have been effective as there have been no further fatalities in any of our operations during the year. Also, we reduced our total recordable injury frequency rate (TRIFR) to 3.90 this year, an improvement of 15% year-on-year, as the TRIFR for 2010 was 4.58.+

### Labour unrest

The challenges included labour unrest in connection with wage negotiations which resulted in the Venture operating at reduced capacity for 38 days in some of its operations, and disagreement around the terms of an employee share option plan being offered to employees by Xstrata which resulted in loss of production and community unrest, particularly in the vicinity of the Lion ferrochrome plant.+

### Employment equity

As you will see in the Governance and the Employees and employment practices sections of this report, Merafe has exceeded all the employment equity targets set in the Mining Charter and the Venture is also doing well in this regard.+

## Conclusion

This was a busy year for our board members. My thanks to all of you for your guidance and commitment during the year and I would like to welcome Mpho Mosweu of the Industrial Development Corporation (IDC) who joined our board in March and Zed van der Walt who joined the board in July this year.

This was a particularly challenging year for the Merafe team. Thank you for your outstanding efforts during the year. I also extend my thanks to the management and staff of the Xstrata-Merafe Chrome Venture for their hard work and dedication in challenging times.

I would refer you to the Future outlook section of this report on page 98 and 99 where we have set out our view of the market, which is positive, based on expected stainless steel demand. This, together with our advantage of being a low-cost energy-efficient producer, our strong financial position and our partnership with Xstrata means we are well-positioned for the future.



*Stuart Elliot*

Chief Executive Officer

See the Governance section on page 30

See the Employee and employment practices section of this report on page 77 and 78

See the Safety section on page 71



Boshoek ferrochrome plant in the North West province

Merafe has identified that engaging with our stakeholders is one of our key material issues. It is of particular relevance and significance for both our organisation and its stakeholders. Our board is responsible for communication with our shareholders and has tasked the Chief Executive Officer and Chief Financial Officer and the Investor Relations Manager with maintaining regular dialogue with our shareholders and potential shareholders.



Our recognition as a Best Performer on the JSE SRI Index demonstrates our commitment to building a responsible business. It is encouraging to see that the bottom line success of an increasing number of companies is based on their responsible business behaviour.

# Chairman's report

## Introduction

This has been a busy year for the Merafe board, during which we held not only our usual quarterly board meetings, but also a number of special meetings. Our deliberations included a strategy workshop, during which we reviewed our past performance against our business plan and growth strategy, and agreed and planned our strategy for the future. We also considered the implications of the new Companies Act and King III and approved Merafe's participation in Phase II of the Lion ferrochrome plant.

## Safety

Tragically, the Venture had a sad start to the year with the two fatalities of Mr Zweni Abraham Mkhize at the Wonderkop plant and Mr Chaka Aubrey Letsoalo at the Lydenburg plant during January 2011. Our deepest sympathy goes to their families, colleagues and friends. We found some small comfort in the fact that there were no further fatalities and that the Safety Summit discussed by the CEO has had a positive impact.

## Strategy

I was pleased to be able to congratulate the management team on their successful implementation of our business plan and strategy. This included successfully growing our position in ferrochrome and achieving a reduction of our debt and improving our net cash position, which assisted us during the difficult global conditions of 2009. This year, our strong balance sheet enabled the company to fund its participation in Project Tswelopele, and Lion II via debt at competitive rates and without going to the equity market to raise funds.



The initial implementation of our diversification strategy was delayed by our focus on reducing debt and participating in new ferrochrome projects. This has proved to be a wise decision.

Our Chief Executive Officer (CEO), Stuart Elliot, has taken you through the current application of our strategy and under the Future outlook section of this report on pages 98 to 99 you can read about the application of our strategy to ensure our future sustainability.

We also achieved our goal of maintaining our leading black empowerment status and made excellent progress in terms of the racial and gender composition of our board, management and employees.

## Mining environment

This has been a challenging year for the South African mining industry that was impacted by global and local conditions. The global events have been well documented. On the local front there was uncertainty among investors created by high profile litigation over the awarding of mining rights by the Department of Mineral Resources (DMR) and the debate around nationalisation of the mining industry, which played itself out in the press. We are encouraged by events post year-end which indicate that the government intends providing a clearer framework for doing business in South Africa. Hopefully this will encourage further investment in the South African mining industry, which is urgently needed to create development and employment opportunities.

## SRI Index

We are proud of our recognition as a Best Performer on the JSE SRI Index for the past five years. This recognition demonstrates our commitment to building a responsible business. This year the threshold for recognition was raised and we were one of only 22 companies to be recognised as Best Performers out of the 74 companies who qualified for the Index. We believe this recognition demonstrates our commitment to building a responsible business. We are also encouraged by evidence indicating that the bottom line success of an increasing number of companies is based on their responsible business behaviour.

## The board

In March this year we welcomed a new non-executive director, Mpho Mosweu, to the board. Mpho represents one of our major shareholders, the Industrial Development Corporation (IDC), and we were pleased to have her participation in our deliberations. We also welcomed back Zed van der Walt in July and look forward to his wise counsel, gained from over 30 years' experience in the ferrochrome industry, in the years ahead.

As the Chairman of our unitary board I am responsible for the overall effectiveness of the board and its committees and for ensuring that the board provides effective leadership, upholds ethical standards, is responsible, accountable, fair and transparent and develops and implements strategies aimed at achieving our objectives with regard to our economic, social and environmental performance.

There is a clear separation between my responsibilities and those of the CEO and this separation is documented in our Board Charter. The CEO is tasked with focusing on the operations of the business and ensuring it is run effectively and in accordance with the strategic decisions of the board.

This year, in advance of the need to comply with the new Companies Act, we have established a Social, Ethics and Transformation Committee, which will start its work in 2012.

My thanks to all the directors who have served in both executive and non-executive positions, for the invaluable contribution you have made to the Merafe board.

## Engagement with our stakeholders

Engaging with our stakeholders is one of the key material issues Merafe has identified as being of particular relevance and significance for both our organisation and its stakeholders. The board is responsible for effective communication with shareholders and has tasked the CEO, the CFO and the Investor Relations Manager with maintaining regular dialogue with our shareholders and potential shareholders. I would refer you to the table listing these engagements on pages 41 to 43 of this report. Members of the board also interact with shareholders at our annual general meetings and at the presentations made by our CEO and CFO when we release our annual and half-year results. These presentations are made available on our website, as are our annual reports.

## Dividend

As our shareholders will be aware, the company has not had to go to the market to raise capital to fund our project pipeline. However, due mainly to the capital requirements of the pipeline (including Lion II) we will not be paying a dividend this year.

## Our plans for 2012

2012 promises to be a challenging year for our industry as global uncertainty is likely to remain with us for some time. However, I am confident that we are well-positioned to manage through this period of uncertainty and take advantage of the predicted upturn in ferrochrome demand in the future. We will continue to work hard towards achieving the aims of our diversification strategy, but we will proceed with caution. I would like to acknowledge the hard work the Merafe management team has put into this strategy, assessing numerous possibilities that, disappointingly, have not met our criteria. I hope that their efforts bear fruit in the near future.

## Conclusion

I have already thanked our board members for their valued contributions. On behalf of the board I thank the entire Merafe team for a job well done in 2011.

The board also expresses its appreciation to our Venture partners, Xstrata, and all Venture employees for their contribution to the success of the Venture during a difficult year and to all our suppliers for their continued support.



*Chris Molefe*

Chairman

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We are proud of our recognition as a Best Performer on the JSE Socially Responsible Investment (SRI) Index for five consecutive years

# Governance

## Directorate

### Non-executive directors

*Chairman*
**Chris Molefe**
*(Independent)*
BCom, Post-graduate Diploma in Property Development

Chris (63) has chaired the Merafe board for the past eight years. He has extensive experience in mining and resources, merchant banking and transformation strategy development. He gained his experience while working for Mobil Oil, Union Carbide, Chase Manhattan Bank, Transnet and Royal Bafokeng Resources Holdings Proprietary Limited, where he held the position of Chief Executive Officer. He is currently Executive Chairman of Nishati Oil and Energy Consulting Proprietary Limited. He is also a non-executive director of Jubilee Platinum plc and Kiwara plc.

**Belese Majova**
*(Independent)*
BCompt

Belese (37) joined the Merafe board in January 2009 as an independent non-executive director. She is currently Chief Executive Officer of Zeleb Holdings, a business consultancy specialising in financial management capacity building interventions, business process mapping and supply chain management integration. Previously, she was Financial Director of City of Johannesburg Housing and Financial Manager and acting Chief Financial Officer of the South African Enterprise Development Fund (SAEDF). After completing her Articles she gained audit experience as the Internal Audit Manager for Transnet.

**Abiel Mngomezulu**
*(Independent)*
BSc (Hons)

Abiel (58) joined the Merafe board as an independent non-executive director in September 2010. He is currently the President and Chief Executive Officer of Mintek, a state owned enterprise responsible for mineral extraction technologies and beneficiation. From 1999 to 2007 he served in various roles in the Department of Mineral Resources (DMR), including Director: Mineral Economics, Chief Director: Mineral Promotion and Deputy Director General for the Mineral Policy and Development Branch, where he was primarily responsible for managing the regulation and promotion of the mining industry. Before joining the DMR he worked for both public and private companies in the mining sector.

**Zed van der Walt**
*(Independent)*
PrEng, BSc Engineering (MET), MBA, DPLR

Zed (66) was the technical director of Merafe until he retired in February 2008. Prior to joining Merafe, he was the CEO of CMI Limited and has 35 years' operational and management experience in the ferroalloys industry. He possesses vast operational and management experience and knowledge of the ferroalloy industry.

**Karabo Nondumo**
*(Independent)*
BAcc, HDipAcc, CA(SA)

Karabo (33), who joined the Merafe board as an independent non-executive director on 1 December 2010, is Executive Head of Corporate Finance at Vodacom Group Limited. She was previously CEO of AWCA Investment Holdings. She became involved in the mining industry as an associate at Shanduka Resources and Executive Assistant to Executive Chairman Cyril Ramaphosa. She was also seconded to Shanduka Coal to look after the interests of Shanduka Resources. While at Shanduka she served on the boards of Dowding, Reynolds and Associates (DRA) and Lace Diamonds. Karabo is an independent non-executive director of Rolfes Holdings Limited and a member of their audit and remuneration committees.

**Steve Phiri**
BJuris, LLB, LLM, HDip Co Law

Steve (56), an admitted attorney of the High Court of South Africa, was Chief Executive Officer of Merafe for six years, before becoming the Chief Executive Officer of Royal Bafokeng Platinum in April 2010. He remains on the board as a non-executive director. Before joining Merafe, Steve headed up Corporate and Legal Affairs for the Royal Bafokeng Nation (RBN) and led the negotiating team that successfully resolved the dispute between the RBN and Impala Platinum Limited. In this role he also negotiated the RBN investment in Merafe and the Nation's joint venture with Anglo Platinum Limited. He is the Chairman of the South African Diamond and Precious Metals Regulator, and a non-executive director of Royal Bafokeng Holdings Proprietary Limited.



### Mfanyana Salanje
*(Independent)*
BCom, BCompt (Hons), MBA, CA(SA), ACMA (UK), HDip Tax Law

Mfanyana (50), who joined the Merafe board as an independent non-executive director in December 2010, is the Chief Executive Officer of Mfanyana Financial Solutions. He has extensive experience in both the public and private sectors, having been a General Manager: Group Finance at Transnet Limited, Chief Financial Officer of State Information Technology Agency Proprietary Limited, as well as Group Financial Director of Thebe Investment Corporation Limited. His experience includes audit partnerships at Ernst & Young and SizweNtsaluba. He is an experienced member of audit committees and boards of directors in both the public and private sectors. He is a non-executive director of WG Wearne Limited (an Altx JSE Limited listed company) and the Passenger Rail Agency of South Africa.

### Mpho Mosweu
CA(SA), MBL

Mpho Mosweu (35) is a Chartered Accountant with a Masters degree in Business Leadership and has been with the IDC since 2000. She is head of the Corporate and Structured Finance department at the IDC and has vast experience as a member of audit and risk committees of various companies.

### Meryl Mamathuba
BProc, LLB

Meryl (39) joined the Merafe board in June 2007. She heads up the Corporate Funding Department at the Industrial Development Corporation of South Africa Limited (IDC). Prior to joining the IDC in 2002 she was an associate of Kunene Inc from 1998.

## Executive directors

*Chief Executive Officer*
### Stuart Elliot
BCom, BAcc, CA(SA), HDip Co Law

Stuart (48) gained extensive experience in the accounting and corporate finance fields before joining Merafe in 2001 as Chief Financial Officer. Stuart became Merafe's Chief Executive Officer in April 2010. His experience prior to joining Merafe includes serving as an Audit Manager at KPMG and a Senior Manager at FirstCorp Merchant Bank. As a Project Finance Consultant with Gencor in London he worked exclusively on Gencor's acquisition of Billiton plc from Royal Dutch Shell. Stuart was also an associate director with Deutsche Bank and a director of the Corner House Proprietary Limited for three years.

*Chief Financial Officer*
### Zanele Matlala
BCompt (Hons), CA(SA)

Zanele (48) joined the Merafe board in 2005 as an independent non-executive director. She was appointed Merafe's Chief Financial Officer on 1 October 2010. She is a chartered accountant who, before joining Merafe, was Group Financial Director of Kagiso Investments Proprietary Limited, a position she held from January 2006. Her first appointment as Chief Financial Officer was at the Development Bank of Southern Africa (DBSA), where she had previously served as Executive Manager: Private Sector and International. She joined the DBSA from the IDC where she was head of Wholesale Venture Capital Funds. She is a non-executive director of Dipula Income Fund, Kagiso Media and Business Partners Limited.

*Commercial Director*
### Bruce McBride
BA, LLB, Dip Advanced Banking, MBA, PhD

Bruce (52) was a Senior Partner at law firm Bell, Dewar and Hall before joining Merafe Resources in 2001 as Commercial Director. During his time in law he specialised in commercial litigation, banking and mining law. He is a non-executive director of Mundane World Leaders Fund Limited.

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We recognise that good corporate governance is key to the integrity of our organisation and our ability to manage risk and perform at optimum levels. It is for this reason that Merafe is committed to the highest levels of ethical and accountable business conduct



# Governance (continued)

## Governance and management systems

We recognise that good corporate governance is key to the integrity of our organisation and our ability to manage risk and perform at optimum levels. It is for this reason that Merafe is committed to the highest levels of ethical and accountable business conduct.

### Towards compliance with the King III Code of Corporate Practices and Conduct

Our directors endorse the Code of Corporate Practices and Conduct (the Code) set out in the King III Report on Corporate Governance. In an ongoing effort to improve our governance standards, our board has reviewed the recommendations contained in the revised Code and is taking the necessary steps to ensure that they are applied throughout the company.+

This report sets out the company's application of the revised code and where a King III recommendation has not been applied an explanation is provided.

We have included our sustainability reporting with our financial reporting since 2004 which, we believe, reflects our long-term commitment to best practice corporate governance.

## Board balance and independence

- The majority of non-executive directors are independent
- Non-executive directors do not receive share options or incentives
- There is a clear separation of the responsibilities between the Chairman and the CEO
- The Chairman of the board is independent and without conflicts of interest

While the board acts as the custodian of corporate governance within our organisation, a clear allocation of responsibilities among our directors ensures a balance of power and authority. As recommended by the Code, no independent non-executive director has been with the company for longer than 10 years and there are no fixed-term contracts with directors.

The structure of the Merafe board is closely aligned to the recommendations of King III, with nine of the twelve board members serving as non-executive directors and six of the nine non-executive directors, or 75% of the composition of the board, being independent. The independence of these directors is assessed annually. The Chairman of the board is an independent non-executive director. In terms of King III the Chairman is elected annually. Chris Molefe was re-elected Chairman by the board for 2011. As the Chairman is an independent non-executive director there is no need for the board to appoint a lead independent director at this point in time.

## Board expertise

It is imperative that our board has the appropriate balance of skills and experience within its ranks to fulfil its mandate. The members of our board have a wide range of skills, including financial, technical and commercial expertise which they use to guide the decision-making of our board.+

## The board's corporate governance role

Our Board Charter commits the board to ensuring our company is a responsible corporate citizen.

Good governance is about strong leadership. It is the role of the Merafe board to direct, govern and be in effective control of the company. The fact that our company has been acknowledged as a responsible corporate citizen is testament to the sound leadership of our board.

The board's Charter and our company's Code of Ethics define the roles, responsibilities and behaviours of the board in ensuring a successful, ethical and sustainable business. The board is required to make decisions on matters of a material and significant nature, including our company's financial and operating results, major acquisitions and disposals, considerable capital expenditure and the strategic direction of our business.

Not only does the board direct the development of our company strategy but it is incumbent upon its members to assess the short- and long-term impacts of our strategy on all stakeholders. The company's strategic plans are reviewed annually and, following a strategic planning workshop in October 2011, the board approved our strategic plan to December 2013. Accountability rests with our board for ensuring our financial and legislative compliance, as well as the timeous identification and management of risk and opportunity.

For more information, see the table on pages 109 to 112 setting out our application of King III

For more information, see pages 26 to 27 for short biographies of our board members

Read more about our code of ethics on page 36

The definition of an independent non-executive director in King III (these are the criteria that Merafe uses to define an independent non-executive director):

An independent non-executive director is a non-executive director who:

- is not a representative of a major shareholder who can control or significantly influence management or the board
- does not have a material direct or indirect interest in the company/group which:
  - is greater than 5% of the group's total number of shares in issue;
  - is less than 5% of the group's total number of shares in issue, but is material to his/her personal wealth
- has not been employed by the group or appointed as designated auditor or partner in the group's external audit firm, or senior legal adviser in the previous three financial years
- is not related (immediate family) to someone who has been employed by the group in an executive capacity in the previous three financial years
- is not a professional adviser to the group
- is free from any other business or relationship that could conflict, such as being a director of a material customer of or supplier to the company
- does not receive remuneration based on the company's performance

## Merafe Resources board composition

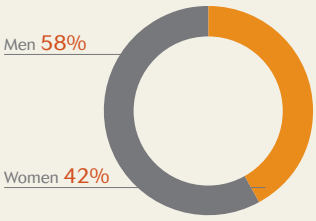
At the end of December 2011, the majority of the directors were black, reflecting the country's demographics. In addition, four of the board members are black women, in line with the spirit and intent of employment equity principles.

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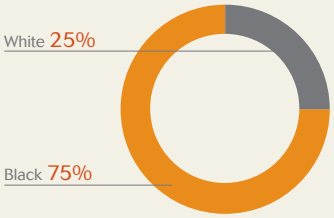
**Performance evaluation**
Performance evaluations to assess the efficiency and competence of the board and its performance with respect to the company's economic, environmental and social performance can also be used to guide the development needs of directors. Board members evaluated the performance of the board once again in 2011

# Governance (continued)

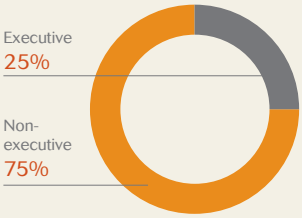
## Board statistics



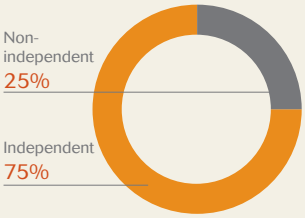

Gender




Race




Executive/Non-executive




Independence of non-executive directors

## Board membership (as at 31 December 2011) and member attendance at board meetings during 2011

| Director | Position | First appointed | Attendance | |
|---|---|---|---|---|
| | | | Board meetings | Special meetings |
| **Non-executive directors** | | | | |
| Chris Molefe | Chairman and independent non-executive director | 5 May 2003 | 4/4 | 3/3 |
| Belese Majova | Independent non-executive director | 2 January 2009 | 4/4 | 3/3 |
| Meryl Mamathuba | Non-executive director | 1 June 2007 | 3/4 | 0/3 |
| Abiel Mngomezulu | Independent non-executive director | 9 September 2010 | 4/4 | 3/3 |
| Karabo Nondumo | Independent non-executive director | 1 December 2010 | 4/4 | 2/3 |
| Steve Phiri | Non-executive director | 26 July 2001 | 3/4 | 1/3 |
| Mfanyana Salanje | Independent non-executive director | 1 December 2010* | 4/4 | 3/3 |
| Mpho Mosweu | Non-executive director | 2 March 2011 | 3/4 | 3/3 |
| Zed van der Walt | Independent non-executive director | Joined the board in 2002 as executive director – retired 1 July 2008 | 2/4 (Appointed on 1 July 2011) | 1/3 |
| **Executive directors** | | | | |
| Stuart Elliot | CEO, executive director | 16 October 2001 | 4/4 | 2/3 |
| Zanele Matlala | CFO, executive director | 1 April 2005** | 4/4 | 2/3 |
| Bruce McBride | Commercial Director, executive director | 26 July 2001 | 4/4 | 2/3 |

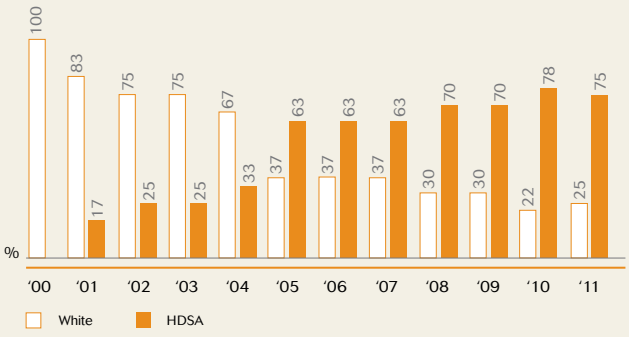
* *Appointed Chairman of the Audit and Risk Committee on 25 February 2011*

** *Appointed executive director on 1 October 2010*

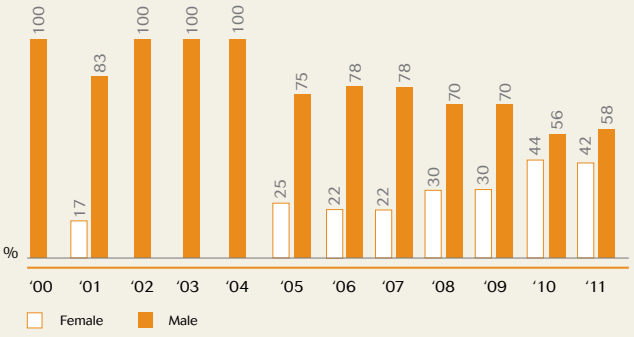
## Sub-committee membership at 31 December 2011 and attendance at these meetings during 2011

| Members | Audit and Risk Committee | Remuneration and Nomination Committee | Transformation and Corporate Social Investment (CSI) Committee |
|---|---|---|---|
| **Non-executive directors** | | | |
| Chris Molefe | n/a | 4/4 (Chairman) | 3/3 |
| Belese Majova | 6/6 | 4/4 | 3/3 |
| Meryl Mamathuba | n/a | n/a | 2/3 (Chairman) |
| Abiel Mngomezulu | 4/6 | 2/4 (Resigned from the committee at the board meeting held on 25 February 2011) | n/a |
| Karabo Nondumo | 6/6 | 2/4 (Appointed to the committee at the board meeting held on 25 February 2011) | n/a |
| Steve Phiri | n/a | 3/4 | n/a |
| Mfanyana Salanje | 6/6 (Chairman) | n/a | n/a |
| Zed van der Walt | (Appointed to the committee at the board meeting held on 24 November 2011) | n/a | n/a |
| **Invitees** | | | |
| Stuart Elliot | 4/6 | 3/4 | 3/3 |
| Zanele Matlala | 4/6 | n/a | 3/3 |
| Bruce McBride | 4/6 | n/a | 3/3 |
| Chris Molefe | 5/6 | n/a | n/a |
| Jurg Zaayman | 4/6 | n/a | n/a |
| Kajal Bissessor | 4/6 | n/a | n/a |

Progression of the racial composition of the Merafe board since the company's inception in 2000




Progression of the gender composition of the Merafe board since the company's inception in 2000



The Boshoek smelter, North West province



## Management team

In addition to the executive directors, the management team includes:

### Kajal Bissessor

*Finance and Investor Relations Manager*
BAcc, Post-graduate Diploma in Accounting, CA(SA)

Kajal (29) joined Merafe in 2009 after working as a manager at KPMG Inc from 2004 – 2009. During her time with KPMG Inc she gained international experience as an Audit Senior with KPMG Ireland.

### Amritha Mahendranath

*Company Secretary*
BCom

Amritha (44) joined Merafe in 2003 as Financial Manager and was appointed Company Secretary in March 2004. She has a corporate governance qualification from the University of Johannesburg.

### Dr Jurg Zaayman

*General Manager – Merafe Chrome*
BEng, MEng, PhD (Metallurgical Engineering)

Jurg (43) started his career in the ferrochrome industry with Xstrata Alloys in 1997. He joined Merafe Resources as Operations Manager during 2001 and later headed up its operations as Managing Director. In 2004 he was seconded to the Xstrata-Merafe Chrome Venture as project leader for the Bokamoso pelletising plant project before being appointed to his current position in 2007.

## The Company Secretary

The Company Secretary plays a pivotal role in guiding and assisting our board on the delivery of its mandate and she is expected to be available to the Chairman and individual board members at all times. The Company Secretary is responsible for ensuring compliance with all statutory requirements, including the JSE Listings Requirements, and she administers and records the business of our directorate. It is also her responsibility to ensure that the Board Charter and the Terms of Reference of our board committees are kept up to date and relevant and that proper procedure is followed for the appointment and induction of new directors.

## Board induction and training

All newly appointed directors receive both formal and informal training related to the company and their fiduciary responsibility as directors. Ongoing directorate training in the last year was focused primarily on ensuring a proper understanding of the revisions to the Code of Practice in King III and the new Companies Act. Board members attended training sessions and visited the operations. They also participated in strategic workshops which led to the approval by the board of the company strategy.

## Retirement and appointment of directors

To ensure that our board keeps pace with the dynamic business environment within which it operates while maintaining a level of continuity within the directorate, the retirement of directors is staggered on a rotation basis at the annual general meeting.

Appointing directors who bring the appropriate skills and expertise to the board – and who are non-executive and independent as suggested by King III – requires careful consideration and selection. The procedures for appointing new directors to the board are formal and transparent and a thorough investigation of the candidates by the Remuneration and Nomination Committee assists the board to make informed appointments in the best interests of our company. The committee not only checks whether the potential board member has ever been disqualified as a director but also assures the board that the requisite skills are in place to enable decisions around business sustainability, governance, strategy and performance, risk and opportunity and standards of conduct.

## Dealing in securities

We have developed a policy to guide directors and designated employees on dealing in the company's securities. The JSE Listings Requirements specifically prohibit directors or senior employees from buying or selling a company's shares during a closed period.

## Mechanisms for shareholder communication with the board

There are a number of formal mechanisms in place to ensure regular and consistent communication with our shareholders. These include one-on-one meetings with investors as well as investor roadshows; investor site visits; media announcements of the interim and year-end results as well as any other significant developments within the organisation; the company's website; the annual report and the proxy form which shareholders use

to exercise their votes. The company also has an Investor Relations Manager who responds to enquiries from shareholders, as appropriate.

### Board level processes for identifying, managing and overseeing economic, social and environmental risks and opportunities

In terms of King III certain functions can be delegated to appropriately constituted committees which operate according to specific terms of reference which are renewed annually. Merafe has a number of committees that guide and report to the board on key business issues. The committees meet in accordance with the requirements of King III and more often if necessary. The roles and responsibilities of these committees, including those of the Executive Committee, are detailed on the next page.

### Board sub-committees

The Remuneration and Nomination Committee and the Audit and Risk Committee are chaired by independent non-executive directors, while the Transformation and Corporate Social Investment (CSI) Committee is chaired by a non-executive director. This committee will become the Social, Ethics and Transformation Committee in 2012 and new terms of reference will be drafted for it.

Audit committees fulfil a vital role in effective corporate governance and it is the responsibility of the Merafe board to ensure that our company has a competent committee in place. In light of King III the role of the Audit and Risk Committee has been extended beyond financial reporting to include a critical role in the oversight and assurance of the company's integrated financial and sustainability reporting. This required a re-assessment of the skills set of the committee members to ensure they have the necessary experience and understanding of the relevant standards, regulations and guidelines that will ensure Merafe achieves the highest standards of reporting excellence. The independent non-executive directors nominated to the Audit and Risk Committee were formally elected at Merafe's annual general meeting in April 2010 and shareholders will be required to endorse the election of Audit and Risk Committee members on an annual basis.

Responsibility for the implementation of an IT governance framework for the Venture has been delegated to the Business Systems division, which has implemented a combination of Control Objectives for Information and related Technology (COBIT), which is a set of best practices for IT management; Information Technology Infrastructure Library (ITIL), which is a set of concepts and practices for IT services management, IT development and IT operations; and Val IT, which is a suite of documents that provide a framework for the governance of IT investments produced by the IT Governance Institute (ITGI) and include a formal statement of principles and processes for IT portfolio management. Business Systems, with the assistance of KPMG, has also developed a customised IT governance framework. The framework has two major components: the IT governance strategy roadmap and the IT governance framework, which uses the RASCI model (Responsible, Accountable, Supportive, Consulted, Informed), a tool that can be used to identify roles and responsibilities.

Within the Venture the Business Systems division reports into the Chief Financial Officer, who represents it at board level. In addition, the Venture has established a governance body, the Information Systems (IS) Planning Council, which reports into Exco and plays a key role in driving IT governance in the Venture.

To align the operation and management of IT processes within the Venture with its performance and sustainability objectives, the Business Systems division has aligned its scorecard with Xstrata's 17 Sustainable Development Standards. These Standards apply in the Venture's operations and set clear expectations on a comprehensive range of sustainable development-related topics.

A post has been created for the management of IT risk and to ensure that the Venture's management of risk is aligned with Xstrata group risk processes and methodology.

The management of IT assets is reported regularly to the IS Planning Council and the Venture's CFO. In addition, they are regularly evaluated by means of internal and external audits.

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King III has highlighted information technology (IT) governance and the responsibilities of the board in this regard and IT is high on the Merafe board's agenda. The board is in the process of developing an IT charter and policy and IT will be a standing agenda item for the Audit and Risk Committee. A control framework will be used to assess internal IT controls which are to be integrated with the company's strategic business processes. In an effort to firm up risk management, the board has received independent assurance on the effectiveness of these controls. The board will also monitor significant IT expenditure for Merafe

# Governance (continued)

| Committee | Roles and responsibilities |
|---|---|
| Executive Committee | The Executive Committee recommends policies and strategies; monitors and coordinates implementation; deals with all executive management business and is responsible for all material matters that are not the responsibility of the board. |
| Audit and Risk Committee | The Audit and Risk Committee monitors the adequacy of financial controls and reporting; reviews the audit plans of the external auditors and adherence to these plans; considers and determines the principles for approving the use of the external auditors for non-audit services; ensures that financial reporting complies with IFRS and the Companies Act; and reviews and makes recommendations on all financial matters. |
| | In line with King III it is now also the responsibility of the Audit Committee to oversee integrated reporting as well as the assurance function, which will include applying a combined assurance model to ensure a coordinated approach to all assurance activities including sustainable development and ethics. |
| | The Audit and Risk Committee assists the board in the identification of all material risk and sustainability issues to which the company is exposed. It ensures that the requisite risk management culture, policies, practices, systems and resources are in place and are functioning effectively. The risks listed in Merafe's register, as well as those of the Venture, are reviewed by the committee at each meeting and members are responsible for providing assurance to the board that risk mitigation processes are in place to reduce the company's risk profile. |
| | The Audit and Risk Committee complies with the Companies Act 2008 and King III in terms of having an independent non-executive director as its Chairman and members who are also independent directors. |
| | The Audit and Risk Committee is tasked with ensuring that the Information Technology (IT) strategies of both Merafe and the Venture are integrated with the entities' overall business strategies and processes, that IT is being leveraged to improve its performance and sustainability and that this forms an integral part of its risk management practices. |
| | The Audit and Risk Committee assesses and monitors the risks to which Merafe is exposed through its participation in the Venture. |
| Remuneration and Nomination Committee | The Remuneration and Nomination Committee establishes the overall principles of remuneration and considers, reviews and approves the company's policy on remuneration for executive and non-executive directors. External consultants may be called upon to determine whether remuneration is in line with industry standards. Bonuses for executive directors are performance-based and are only paid if the company makes a profit. |
| | The Remuneration and Nomination Committee develops policy around the appointment of directors, investigates potential board members for necessary skills and competence and makes appropriate recommendations to the board. |
| Transformation and Corporate Social Investment Committee | The Transformation Committee reviews and manages the company's commitment to transformation by, at the very least, ensuring compliance with the Employment Equity Act, the Mining Charter and the BBBEE Codes of Good Practice. |
| | In accordance with the Transformation Committee's terms of reference, its Chairman will always be a non-executive director. |
| | The Corporate Social Investment Committee, a sub-committee of the Transformation Committee, manages Merafe's CSI policies and monitors their programmes. |

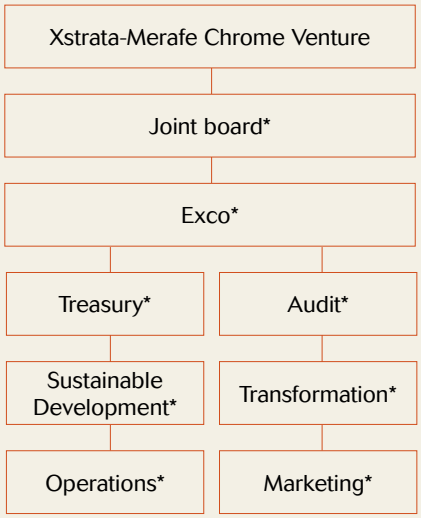
## Overall governance of the Xstrata-Merafe Chrome Venture

Merafe's main business is its 20.5% interest in the Venture and ensuring proper governance of the activities of the Venture is thus very important for the company. To this end, a joint board, made up of three senior representatives from each company, meets quarterly to oversee the operations of the Venture.

Merafe is represented by its Chief Executive Officer, Chief Financial Officer and Commercial Director, with its General Manager: Chrome also attending the meetings. The Chief Executive of Xstrata Alloys, who is currently the Chairman of the joint board, with its Chief Financial Officer and the Managing Director of our Chrome division, represents Xstrata.

Members of Merafe's management team also attend the Venture's monthly Executive Committee meetings and participate in the Treasury, Sustainable Development Committee, Audit Committee and Transformation Committee meetings.

## Merafe representation and participation in the Xstrata-Merafe Chrome Venture




* *Merafe representation and participation*

## Operational risk management

It is incumbent upon the Merafe board to determine the level of risk which the company can tolerate and to ensure that the systems are in place to be able to anticipate unpredicted risks and opportunities. It is the responsibility of the Audit and Risk Committee to assess the risks which may impact on our ability to deliver in line with our strategic mandate while maintaining the highest standards of economic, environmental, social and governance practices (see pages 10 to 11 for a list of these identified risks), and to provide the necessary assurances in this regard to our board.

Operationally, the primary risk to which Merafe is exposed is that of the Venture. In an effort to protect its people, assets, reputation and the environment in which it operates, the Venture has integrated its sustainable development risk management and enterprise risk management. A precautionary and proactive approach to risk management has been adopted within the Venture whereby a definitive possibility of the risk occurring is not necessarily required before preventative action is taken.

Each operation within the Venture is required to implement and maintain robust risk control systems and processes. Business plans must take account of key risks, internal controls and the appropriate mitigating actions. Significant changes to identified and anticipated risks, and actions taken or being considered to control the risks, are reported to the Venture's Executive Committee and joint board monthly to ensure that management is fully informed on the business risk profile.

## Internal audit

The Venture's internal audit function is independent of all the Venture's operations. Its areas of focus are reserves, health and safety and projects. All its members are qualified Chartered Accountants registered with the South African Institute of Chartered Accountants.

Timeous internal audit reports are provided to Merafe's management and the Chairman of the Xstrata plc audit committee. An annual audit plan is presented to the audit committees of both the Venture and Xstrata plc. The plan is monitored quarterly and reviewed at the Venture's Audit Committee meetings. The areas reviewed by internal audit are rated in four report categories and their recommendations fall into three different classifications. Processes are in place to record and track the progress of actions arising from audit reviews. These are discussed at Audit Committee meetings.

The internal audit process meets the requirements of King III in all aspects except two: an internal audit quality review is not in place and the chief audit executive does not have a standing invitation to attend Executive Committee meetings. However, in mitigation, he does have regular meetings with the business unit heads.

Previously, Merafe did not consider it necessary to have a separate internal audit function at our corporate office for the following reasons:

- All trading in the group takes place in the Venture, which has a reputable internal audit function
- The Chief Financial Officer and Chief Executive Officer of Merafe perform monthly reviews of all balance sheet, income statement and cash flow information prepared by the Management Accountant and Financial Manager. The Venture is audited by E&Y, while Merafe is audited by KPMG – an accounting firm independent of E&Y
- Merafe management has monthly meetings with Xstrata management to discuss the performance of the Venture at Executive Committee meetings
- The accounting departments of Xstrata and Merafe are both staffed by qualified Chartered Accountants.

However, our Audit and Risk Committee has recommended that we investigate the most suitable options for providing an internal audit function for Merafe. This investigation will be carried out and completed during 2012.

Roles and responsibilities for risk management are clearly defined within the Venture and the internal audit function is responsible for ensuring that operational risk management controls are effective.

# Governance (continued)

The Venture's Director: Sustainable Development guides the development of Health, Safety, Environment and Community (HSEC) frameworks and the implementation of management systems at site level which align to the Business Principles, company policies and best practice standards.&

## Ethics

The Merafe Code of Ethics governs the way we do business and the way our directors and employees engage with our many stakeholders. The Code, which is binding on our directors and employees, including contractors, provides guidelines for behaviour which is above reproach.

The Merafe board is committed to creating a culture where the highest levels of integrity are underpinned by transparent business transactions and robust assurance systems.

The Business Principles, which are applied in the Venture, provide an unambiguous framework within which that business operates – ethically, openly, responsibly, together and with others.

A copy of these Principles, in the language of choice, is provided to every employee, supplier, contractor and business partner before they begin work at the Venture. The Principles are an integral part of the Venture's induction process and strict adherence is expected of employees and contractors. An online training system is used to test employees' and contractors' understanding and application of the Business Principles in different simulated scenarios. Employees are required to achieve a minimum score of 70% in the training.

In October 2010, Xstrata implemented a new global policy on bribery, fraud and corruption which applies to all subsidiaries, joint ventures and business units as well as to all employees, officers and directors of those entities.

The purpose of the policy is to ensure that adequate procedures are in place to prevent any form of bribery and fraud and to explain the procedures which must be followed by management and staff when there is evidence or a suspicion of an incident of bribery or fraud.

To supplement the Business Principles and support this new policy the Venture has now developed a new Code of Conduct, which has been issued to all employees and contractors. Training is provided in the application of the Code.

The implementation of the Business Principles and the Code of Conduct is supported by a confidential and independently managed toll-free ethics line and email address, the details of which are printed on the back of the Business Principles and the Code of Conduct and displayed in workplaces.

Employees of the Venture can raise concerns over any unethical business practices including incidences of fraud, theft, corruption, dishonest business activity, misappropriation of company resources or incorrect health and safety practices. These reports are directed to the head of internal audit for investigation and appropriate action.

All operations in the Venture were analysed for risks related to corruption in 2011.

Eight cases of possible corruption were reported to the Venture's confidential ethics line. As a result two contracts of employment were terminated, one employee was dismissed, one employee was found to be not guilty of corruption and two others were disciplined.

## Human rights

Merafe subscribes to the fundamental tenets of human rights as enshrined in the country's Constitution and Bill of Rights. Its policies and practices are aligned to ensure that all employees and stakeholders are treated with dignity and in a manner that is culturally appropriate, irrespective of gender, background or race.

The principles of the United Nations (UN) Universal Declaration of Human Rights, the International Labour Organisation (ILO) Conventions and the UN Global Compact have been embedded in Xstrata's Sustainable Development Framework, which is applied in the Venture.

South African labour legislation prohibits the employment of children younger than 18 years of age. All operations report the age of their youngest employee and are monitored through the internal audit and risk management programme. The age of the youngest employee in 2011 was 18 years of age.

The Venture has the grievance processes in place to ensure that any breaches of human rights can be reported, investigated and, where necessary, the appropriate corrective action can be taken. In addition, employees can use the ethics line to report any activities which they believe are not in line with the company's policies on human rights.

Employees of the Venture, and security personnel in particular, undergo training in human rights to ensure a basic understanding of, and compliance with, the Business Principles.

The Venture seeks to extend its influence beyond the workplace to ensure the highest levels of human rights practice within its supply chain as well. Major suppliers and contractors are expected to comply with the Business Principles and significant business partners undergo screening on their human rights practices.

The Venture's Sustainable Development Standards require the operations to maintain community relations strategies that uphold and promote human rights and respect cultural considerations and heritage. No breaches of human rights were reported by any operations during 2010 nor were there any incidents of the rights of indigenous people being violated.

## Labour relations

The Venture undertakes to consult with its employees and their recognised representatives in advance of significant operational changes in an effort to reach consensus about any necessary business actions.

& For more information on Ethics please visit our website on: www.meraferesources.co.za

Collective bargaining and freedom of association are considered a fundamental right for employees of the Venture. Collective agreements, particularly around terms and conditions of employment and company benefits, are negotiated between the parties with due regard to relevant legislation. The Venture seeks to reach agreement with the unions on annual wage increases for implementation in July each year.

All employees are treated with dignity and in a manner that is culturally sensitive. Unfair discrimination on the basis of race, gender, religion, political or sexual orientation, national extraction or social origin is not tolerated in the workplace.

## Industrial action

During 2011 there were a number of incidents of industrial action at the Venture's operations which are detailed in the table below.

## Externally developed principles, charters and initiatives to which Merafe and the Venture subscribe

Merafe is committed to the principles of the revised Mining Charter for the South African mining industry and the Mining Scorecard, established to monitor performance against the Charter, and to meeting the targets set in the Mining Scorecard.

Merafe's partner in the Venture, Xstrata, plays an active role in a number of significant international and national industry organisations and stakeholder groups through membership, funding, provision of expertise and participation in committees and working groups. Its commitments, through these involvements, are met in the Venture's operations. They include: the UN Global Compact, the Dow Jones Sustainability Index, the International Council on Mining and Metals (ICMM), the North West Province Air Pollution Control Forum (NAPCOF) and the Ferro Alloys Producers Association (FAPA). NAPCOF and FAPA discuss air quality issues and partner with regulators in setting best practice air quality standards. Their task teams deal with specific air quality issues and also engage with regulators through providing feedback and advice.

The Venture is a member of the Ferro Alloys Producers Association (FAPA), the International Chrome Development Association (ICDA), the North West province Air Pollution Control Forum (NAPCOF) and the South African Mining Development Association (SAMDA).

The Venture's Sustainable Development Framework is aligned to the International Council of Mining and Metals' (ICMM) Sustainable Development Framework.

Consistent with the new Companies Act No 71 of 2008, King III calls for disclosure of the remuneration of each individual director.+ Non-executive directors are given a basic fee as well as a fee for attending board meetings, while the remuneration of executive directors is decided by the Remuneration and Nomination Committee and endorsed by the board.

Executive directors do not receive board fees in addition to their remuneration packages.

Guided by the Remuneration and Nomination Committee, we have developed, in line with King III, a remuneration policy for directors which addresses base pay, performance contracts, severance and retirement benefits and share-based and incentive schemes. The policy was presented to shareholders for approval at the Annual General Meeting in 2011 and was approved.

| | Operation | Duration of action | Number of employees involved | Cause of action |
|---|---|---|---|---|
| 2009 | Lion ferrochrome plant | 66 days | 318 | Disagreement over bonuses (interpretation of collective agreement over production incentive/bonus scheme) |
| | Thorncliffe and Helena mines | 14 days | 541 | Protected strike regarding organisational rights |
| | Lydenburg ferrochrome plant | 3 days | | Secondary strike |
| 2010 | Thorncliffe and Helena mines | 1 day | | Secondary strike |
| | Lion ferrochrome plant | 13 days | 178 | Protected strike regarding disagreement on allocation method of employee share option plan (ESOP) |
| | Wonderkop ferrochrome plant | 33 days | 754 | Protected strike regarding wages and harmonisation with Eastern ferrochrome plants. To be equalised through a harmonisation process. Agreement reached to start with the process |
| | Projects | 11 days | 34 | Protected strike regarding disagreement on allocation method of ESOP |
| | Boshoek ferrochrome plant | 33 days | 357 | Protected strike regarding wages and harmonisation with Eastern ferrochrome plants. To be equalised through a harmonisation process. Agreement reached to start with the process |
| | Lydenburg ferrochrome plant | 9 days | 221 | Protected strike regarding disagreement on allocation method of ESOP |
| 2011 | Rustenburg ferrochrome plant | 33 days | 401 | Protected strike regarding wages and harmonisation with Eastern ferrochrome plants. To be equalised through a harmonisation process. Agreement reached to start with the process |

The remuneration paid to executive directors and non-executives is set out on pages 182 and 183

# Remuneration report

## Disclosure of remuneration

Consistent with the new Companies Act No 71 of 2008, King III calls for disclosure of the remuneration of each individual director.

Non-executive directors are given a basic fee as well as a fee for attending board meetings while remuneration of executive directors is decided by the Remuneration and Nomination Committee and endorsed by the board.

The remuneration paid to executive directors and non-executive fees is set out on page 182. Executive directors do not receive board fees in addition to their remuneration packages. In addition executive directors receive share options and share grants in the company which information is set out on pages 150 to 159.

Our Nomination and Remuneration Committee regularly undertakes independent benchmarking exercises to ensure that executive, non-executive and employee remuneration is in line with industry standards.

Bonuses are performance-related in accordance with employment contracts and the performance of the company. In instances where the company does not make a profit, executives do not receive bonuses (as was the case in 2009). The Remuneration Committee sets aside 1.5% of the EBITDA for executive and employee bonuses which means bonuses are linked to the performance of the company. However, management's participation in any bonuses is also related to their performance of their duties during the year. Further, 75% of any bonuses awarded is paid on 15 March of each year and 25% is paid on 15 December of that year and are subject to employees being employed at that time.

On 13 April 2010 shareholders approved a new share incentive scheme for the company's employees, including its executive directors.+

The aim of the scheme, which gives employees the opportunity to acquire shares in our company, is to encourage them to identify more closely with the company's activities and those of its subsidiaries and to promote our continued growth through their activities.

Share grants issued under the Share Incentive Scheme during 2011 are set out on pages 157 to 159.

Since the approval of the Share Incentive Scheme by shareholders in 2010, the company has moved to a system of smaller awards of annual share grants to employees of Merafe. The share grants contain two objectives – retention and performance. The grant shares vest in year 3, 4 and 5 after date of award. The performance criteria are set out on page 156 of this report. In respect of directors, 50% of the share grants are subject to the performance criteria being met and, in respect of management and employees, 20% is subject to performance criteria.

Guided by the Remuneration and Nomination Committee, Merafe has developed in line with King III a remuneration policy for directors which addresses base pay, performance contracts, severance and retirement benefits, share-based and incentive schemes. The policy was approved by shareholders at the Annual General Meeting in 2011 and is available on our website. The salient features are set out hereunder.

## Remuneration philosophy, strategy and policy

### Remuneration philosophy

The company's primary philosophy is to employ high-calibre, high-performing employees who subscribe to the values and culture of our company. We recognise that our employees are integral to the achievement of our corporate objectives and they are accordingly remunerated for their contribution and the value they deliver. Our remuneration strategy and policy are regularly reviewed by the Remuneration and Nomination Committee to ensure they are appropriate.

### Remuneration strategy

Our remuneration strategy is designed to be aligned with our business strategy and the execution of that strategy. Since we strive to attract, retain, motivate and reward employees for executing our business strategy, their remuneration must clearly be market-related and third parties are used by our Remuneration and Nomination Committee for the purpose of benchmarking to the appropriate segment. The general principle of our remuneration strategy is to structure executive and employee remuneration to include:

- a guaranteed annual package and benefits
- an annual variable performance bonus
- ownership of shares through the long-term incentive scheme which is based on retention and performance with the aim of creating a strong alignment to shareholder goals.

The remuneration strategy and policy was communicated to all employees during the year together with our expectations around their contribution to the success of our organisation.

### Remuneration policy

The key principles of the remuneration policy are that:

- the policies are governed by the Remuneration and Nomination Committee who regularly review them to ensure they are relevant and support our company strategy

+ Share options and share grants were issued under the new incentive scheme during 2010 as set out on pages 150 to 159

- guaranteed remuneration is targeted at the median to upper quartile of the relevant market data (against which we benchmark) to retain and attract high-calibre and high-performing employees
- it is company policy that all employees are members of medical and retirement funds and have group life and disability cover
- variable pay is an important component of remuneration at Merafe and both annual and long-term performance-based schemes which support our business strategy are in place
- the incentive scheme performance measures are assessed by the Remuneration and Nomination Committee and these measures can be weighted between corporate, individual, financial and non-financial criteria. The measures are applicable to the time period to which the scheme relates
- our annual bonus is based on the attainment of measures for the financial year, while the long-term incentive scheme measures are based on growth and sustainability, such as capacity growth and assets under management
- executive remuneration is aligned to shareholder value creation through the long-term scheme
- where necessary both short-term and long-term incentive schemes are benchmarked against the appropriate database by the Remuneration and Nomination Committee
- annual salary adjustments are governed by factors such as the consumer price index (CPI), retention strategies, the producer price index (PPI), industry performance, projected growth, contractual arrangements and affordability, and industry average increase surveys, which will be taken into consideration in setting the recommended increase. The Remuneration and Nomination Committee will approve or set the overall increase percentage that will be applied on a company basis
- the over-riding principle governing payments for non-executive directors is that they will be made in the context of good governance.

Other topics covered in the policy are: succession planning, career planning and performance management.

## Non-executive directors' fees

During the process of appointing our new non-executive directors in 2011, in accordance with our philosophy of ensuring that our remuneration is market-related, we consulted with independent experts regarding appropriate remuneration. This process led to a review of the remuneration of non-executive directors. In line with our strategy of employing high-calibre individuals, Merafe determined a fee structure positioned between the medium and upper quartile rate for non-executive directors for 2011, in accordance with a benchmarking exercise that was undertaken. The non-executive directors' fees paid during 2011 are set out on page 182.

## Non-executive directors' fees – 2011

| | Fees per annum R | Retainer 60% R | Attendance fee 40% R | Fee per meeting R |
|---|---|---|---|---|
| Board Chairman | 384 500 | 230 700 | 153 800 | 38 450 |
| Board members | 207 250 | 124 350 | 82 900 | 20 725 |
| Audit and Risk Committee Chairman | 109 150 | 65 490 | 43 660 | 10 915 |
| Audit and Risk Committee members | 98 950 | 58 470 | 38 980 | 9 745 |
| Remuneration/Nomination Committee Chairman | 80 850 | 48 510 | 32 340 | 8 085 |
| Remuneration/Nomination Committee members | 49 350 | 29 610 | 19 740 | 4 935 |
| Transformation and CSI Committee Chairman | 80 850 | 48 510 | 32 340 | 8 085 |
| Transformation and CSI Committee members | 49 350 | 29 610 | 19 740 | 4 935 |

*Based on four meetings per annum with a split of 60% retainer and 40% attendance fee*
*Special board or committee meetings in addition to the above – only attendance fees are payable*
*During 2011 special board/committee meetings were held inter alia relating to strategy sessions, investments and new legislation*
*In addition to the above, should the Chairman of the board and committees be required to undertake ad-hoc duties, additional remuneration is payable based upon the time spent in accordance with the remuneration policy and as determined by the board*
** The Transformation/CSI Committee will be replaced in 2012 by the Social, Ethics and Transformation Committee*

# Remuneration report (continued)

The proposed non-executive directors' fees for 2012 are set out below (A fee increase of 6% on non-executive directors' fees for 2011 is proposed).

## Proposed non-executive directors' fees – 2012

| | Fees per annum R | Retainer 60% R | Attendance fee 40% R | Fee per meeting R |
|---|---|---|---|---|
| Board Chairman | 407 570 | 244 542 | 163 028 | 40 757 |
| Board members | 219 685 | 131 811 | 87 874 | 21 969 |
| Audit and Risk Committee Chairman | 115 699 | 69 419 | 46 280 | 11 570 |
| Audit and Risk Committee members | 104 887 | 62 932 | 41 955 | 10 489 |
| Remuneration/Nomination Committee Chairman | 85 701 | 51 421 | 34 280 | 8 570 |
| Remuneration/Nomination Committee members | 52 311 | 31 387 | 20 924 | 5 231 |
| Social, Ethics and Transformation Committee Chairman | 85 701 | 51 421 | 34 280 | 8 570 |
| Social, Ethics and Transformation Committee members | 52 311 | 31 387 | 20 924 | 5 231 |

*Based on four meetings per annum with a split of 60% retainer and 40% attendance fee*

Local community members at work on the construction of the mining supplier park in Limpopo province



# Stakeholder engagement

Engaging with our stakeholders, listening to their views and addressing their concerns, is an integral part of doing business for Merafe.

We have a broad range of internal and external stakeholders who have a material interest in or are affected by Merafe and we have assessed our involvement with them, or our potential impact on them, at a corporate office level. The Venture takes responsibility for stakeholder engagement at operational level and we receive quarterly reports on its stakeholder engagement. Stakeholder engagement is an agenda item at the Venture's board, Exco and sustainability meetings. Our engagement with stakeholders is as diverse as our various stakeholders are. We are proactive in communicating and engaging with both our internal and external stakeholders.

A broad range of methods are used to engage with our stakeholders and we encourage dialogue and feedback. Our engagement includes: face-to-face formal or informal meetings (including Merafe's annual general meeting); media and stock exchange announcements; presentations to investors, potential investors and business partners; conference calls; the Merafe website (www.meraferesources.co.za); operational site visits for investors and potential investors; formal grievance mechanisms; integrated reporting; circulars and email updates; employee forums and workshops; dedicated email facilities; regular customer, business partner and supplier meetings; formal consultation and audit processes.

Stakeholders are categorised as:

- those directly affected, both positively and negatively, by our activities
- interested parties who, while not directly affected by the activities of Merafe, have an interest in or influence over them
- authorities at all levels (local, regional and national).

The Venture's operations maintain and annually review stakeholder engagement plans. Stakeholder engagement information is incorporated into the Venture's annual strategic reviews.



# Stakeholder engagement (continued)

| Stakeholder | Summary of material issues | Methods of engagement | Frequency of engagement | Key topics and concerns raised at the engagement and response/s to these |
|---|---|---|---|---|
| **Shareholders, potential investors and investment analysts** | | | | |
| Merafe Resources has a simple shareholder structure. At 31 December 2011 Royal Bafokeng Resources Holdings Proprietary Limited held 29% of our shares, the Industrial Development Corporation (IDC) held 22% | • Merafe's returns to shareholders and its potential for providing future returns<br>• Financial and non-financial risk management<br>• Corporate governance including executive remuneration<br>• Performance against strategy<br>• Trends and outlook for commodity markets<br>• Management of environmental and social risks and opportunities<br>• Sustainability | • Road shows to investors in South Africa, the United Kingdom, Europe and the USA<br>• Management meetings with investors four times a year<br>• Site visits<br>• Integrated annual report<br>• Half-year and year-end presentations to shareholders<br>• Merafe's annual general meeting<br>• Press announcements of our interim and year-end results<br>• SENS announcements via the JSE<br>• Merafe's website | • Annual or bi-annual visits to the US, UK and Europe<br>• Ad hoc site visits<br>• Annually<br>• Bi-annual<br>• Annually<br>• Ad hoc<br>• As and when required<br>• Ongoing | Issues raised by shareholders and the investor community included:<br>• Information on the ferrochrome market, ferrochrome pricing and the Venture's marketing agreement<br>• Power constraints and the cost of power<br>• Energy saving technology<br>• Political uncertainties with regard to nationalisation and mining rights<br>• Chrome ore exports |
| **Providers of debt** | | | | |
| ABSA Bank | • Ability of the company to repay borrowings<br>• Risk management | The company borrows from South African banks. Regular meetings are held with its bankers. Details of its bankers are to be found on the inside back cover of this report | As and when required | Management assesses key covenants and ratios prescribed in loan agreements regularly and any breaches or potential breaches due to market conditions are anticipated and agreements reached with bankers going forward. Regular meetings are held with Merafe's bankers to assist their understanding of the business and the ferrochrome and stainless steel markets |
| **Suppliers** | | | | |
| Suppliers and potential suppliers | • Requirements regarding HDSA procurement and procurement policies<br>• Contract terms and delivery<br>• All potential suppliers are required to provide details of the HDSA shareholding/ participation in their businesses | Merafe suppliers were required to provide details of the HDSA shareholding/ participation in their businesses and the company has established its current level of procurement in terms of the Department of Trade and Industry's (dti) Codes of Good Practice | As and when required | Merafe communicated with all its suppliers during the year in order to establish their status in terms of the Department of Trade and Industry's (dti) Codes of Good Practice. Where necessary we provide some suppliers who have very small businesses, with advice on how to complete the certification process. Merafe's HDSA procurement has been assessed in terms of its BBBEE Scorecard. Merafe has been rated as a Level 2 contributor |

| Stakeholder | Summary of material issues | Methods of engagement | Frequency of engagement | Key topics and concerns raised at the engagement and response/s to these |
|---|---|---|---|---|
| **Government and regulators** | | | | |
| Department of Mineral Resources (DMR) | • Compliance with the revised Mining Charter and Scorecard<br>• Mining rights<br>• Protection of SA chrome ore beneficiators | Interaction with the DMR<br>The company also participates in government forums, both in terms of mining issues and black economic empowerment | Regularly and as and when required | • The DMR was engaged in respect of adherence to and development of metals and mining related legislation. In addition Merafe and the Venture engage with the DMR over chrome ore exports |
| Department of Labour Government of the North West Province | • Socio-economic development<br>• Job creation and employment | Merafe regularly engages in face-to-face meetings with members of the North West province's government where its assets are based | As and when required | • Adherence to the Employment Equity Act<br>• The need to improve living conditions for the communities in which we operate and support for the efforts of provincial government |
| JSE Limited | • JSE SRI Index<br>• JSE Listings Requirements | Meetings and through our sponsor | As and when required | • Compliance and JSE SRI Index |
| **Business partners** | | | | |
| Xstrata | • New acquisitions and developments<br>• Financial returns<br>• Risk management<br>• Regulatory and policy compliance<br>• Accountable and transparent corporate governance<br>• Sustainability | Merafe engages with its partner in the Venture, Xstrata South Africa Proprietary Limited, through regular joint board meetings, the Venture's Executive Committee meetings and regular contact on operational issues | • Monthly Exco meetings<br>• Audit and Risk, Treasury, SD, Marketing, Transformation meetings<br>• Quarterly board meetings<br>• Ad hoc meetings and communication as required | • Performance figures, risks and opportunities, sustainable development issues and safety issues are reported on. Strategy is discussed and decisions are taken in Exco and board meetings. Queries are raised where necessary and responded to in meetings or in ad hoc communication |
| **Employees** | | | | |
| Employees, their families and dependants | • Remuneration and benefits and rights<br>• Workers' rights<br>• Skills development, training, career development and career opportunities<br>• Employment equity and non-discrimination<br>• Company news | • Monthly meetings<br>• Performance reviews<br>• Grievance and conflict resolution mechanism | Ongoing regular engagement | • Employees are kept informed on business issues and what is expected of them<br>• Training and communication raises employee awareness regarding health and safety issues<br>• Career opportunities and career development discussed during performance reviews |
| **Customers** | | | | |
| Customers who purchase our ferrochrome and chrome ore | • High quality products<br>• Product stewardship<br>• Contract terms and delivery<br>• Reliability of supply<br>• Maintaining strong ongoing customer relationships | • Glencore International AG (Glencore) and the Venture's marketing team are responsible for maintaining relationships with customers to whom the ferrochrome produced by the Venture is marketed | Ongoing | Typically the material issues are raised by customers at engagement and are addressed by our marketing team and/or Glencore |

*Note: Please refer to the Xstrata-Merafe Chrome Venture's Stakeholder engagement summary on pages 55 and 59.*



Lion I: a worker inside the Furnace Workshop store is attending to some of the routine maintenance on specialist equipment

Merafe remains focused on ensuring that the Xstrata-Merafe Chrome Venture maintains its position as the lowest-cost producer of ferrochrome in South Africa and that our growth projects are all delivered on time and within budget. Despite above mining inflation increases in costs this year we contained our cost increases at 14% year-on-year.



Our strategic approach also includes growing our business through diversification, ensuring the sustainability of our business, which includes ensuring we retain our licence to operate, employing best practice corporate governance, achieving and exceeding all the targets set by the Mining Charter and developing good relationships with our stakeholders through regular engagement.

# Economic performance

### Challenges

- Negative impact of global financial uncertainty and geopolitical events
- Exports of South African chrome ore to China undermining the South African ferrochrome industry
- Rising production costs
- Industrial action

### Progress

- EBITDA of R379.8 million
- Strong balance sheet
- Cash flows from operating activities of R295 million
- Concluded agreement to participate in 20.5% of Lion II
- R800 million long-term debt facility negotiated and signed

This section of our report provides an overview of our economic performance in 2011. Our complete Annual Financial Statements can be found on pages 124 to 185 of this report.

Global and local conditions contributed to our mixed fortunes this year. An array of global economic issues resulted in a decrease in the ferrochrome price and the demand for ferrochrome. These included the earthquake and consequent tsunami in Japan and a slow down in demand as a result of the financial woes of Europe and the United States.

Global economic issues saw nervous investors pulling out of small and medium cap stocks, which resulted in the collapse of our share price. This affected our negotiations regarding increasing our interest in the Venture to 26%. After a lengthy process we had completed our negotiations and established a price, but due to unforeseen circumstances had to put our negotiation on hold.

The weakening of the rand against the dollar brought some good news towards the end of 2011 and compensated for lower volumes and a reduced ferrochrome price.

The year was a very busy one which, in addition to our lengthy negotiations around increasing our interest in the Venture, included finalising R800 million in funding over a six-year term for our 20.5% participation in Phase II of the Lion ferrochrome plant. We were able to negotiate funding at competitive rates and with a three year capital grace to match the construction period of Lion II. We are comfortable that with our strong balance sheet we will be able to fund Lion II out of our cash resources and the debt we have raised.

While the Venture remains the lowest-cost ferrochrome producer in South Africa, one of its major challenges this year was containing costs, with chrome ore prices increasing by 24% and electricity prices increasing by 23%. We managed to contain our overall cost increases at 14% for the year.

### Review of results

Merafe's revenue and operating income is primarily generated from the Xstrata-Merafe Chrome Venture (the Venture), the market leader in ferrochrome, with a total managed capacity of 1.98 million tonnes of ferrochrome per annum. Merafe shares in 20.5% of the earnings before interest, taxation, depreciation and amortisation (EBITDA) from the Venture.

Merafe's earnings from the Venture decreased from the prior year primarily as a result of a decrease of 13% in Merafe's share of ferrochrome sales tonnes from 291 000 in 2010 to 254 000 in 2011 and above inflationary increases in production costs. Chrome ore revenue as a percentage of total revenue increased from 8% in 2010 to 14% in 2011 of which 72% related to chrome ore exported to Asia during 2011.

Merafe's share of EBITDA from the Venture for the year ended 31 December 2011 was R464.4 million. The EBITDA includes Merafe's attributable share of standing charges of R134.0 million and a foreign exchange gain of R80.9 million. After accounting for corporate costs of R77.2 million and share-based expense of R7.4 million, Merafe's EBITDA was R379.8 million. Corporate costs increased year-on-year primarily as a result of transaction costs as well as R33.9 million of expenses associated with PAYE and VAT tax liabilities, relating to Voluntary Disclosure Submissions to the South African Revenue Services that the company submitted during the 2011 financial year.

The profit and total comprehensive income for the year is R116.8 million after taking into account depreciation and impairment of R153.1 million, net financing costs of R21.5 million, current tax expense of R47.2 million, deferred tax expense of R36.7 million and secondary tax on companies of R4.5 million. Included in the R153.1 million depreciation is an impairment charge of R41.4 million relating to the north block making plant at the Wonderkop smelter. R29.5 million of the current tax expense arose as a result of the utilisation of capital expenditure in the eastern ring-fence and R17.7 million relates to under-provisions in prior years. The effective rate of taxation has increased from 29% in the prior year to 43% in the current year primarily due to the permanent differences associated with the indirect tax liabilities and the prior year under-provision. The balance of unredeemed capital expenditure is estimated to be R270.6 million at 31 December 2011. Net financing costs includes R4.4 million interest primarily relating to VAT, PAYE and income tax.

Trade and other receivables have decreased significantly from the prior year primarily as a result of the decrease in sales tonnes in the last half of 2011 compared to the comparative 2010 period. Property, plant and equipment increased from the prior period as a result of sustaining

capex of R173.6 million and R230.8 million of expansionary capex primarily relating to Project Tswelopele of R78.1 million and Project Lion II of R112.0 million.

Merafe started the year with a cash balance of R320.7 million, generated R358.2 million in cash flows, paid a dividend and secondary tax on companies of R54.0 million, and invested R404.4 million in expansionary and sustaining capex, closing with a cash balance of R220.5 million. Cash in Merafe is R127.4 million and Merafe's share of cash in the Venture is R93.1 million.

During December 2011, Merafe signed agreements with ABSA Capital to secure long-term debt facilities of R800 million which includes refinancing of its existing R300 million long-term debt and funding for Project Lion II. At 31 December 2011, Merafe had long-term debt of R300 million.

## Market review

Strong global stainless steel production growth, driven mostly by a 15% increase in stainless steel production in China, resulted in record production of stainless steel in 2011 of 33.9 million tonnes compared to 32.4 million tonnes in 2010. Global demand for ferrochrome reached a record 9.3 million tonnes in 2011, exceeding the previous high of 9.1 million tonnes in 2010. Strong end-user demand and restocking by stainless steel distribution centres in the first half of 2011 supported the growth in global demand for both stainless steel and ferrochrome.

A number of global issues, including the earthquake and ensuing tsunami in Japan, the Eurozone debt crisis, economic woes in the United States and political events, such as the Arab Spring, resulted in weaker market conditions which affected ferrochrome demand in the second half of 2011.

Global ferrochrome production of 8.9 million tonnes remained the same in 2011 compared to the 2010 comparative year. South African production rose during the first quarter of 2011, but overall volumes from South Africa declined by 9% due to progressively weaker demand during the year and reduced production during the high electricity tariff South African winter.

In response to strong demand and an increased availability of chromite ore, Chinese ferrochrome production increased by 13%, or 288 000 tonnes, on the production levels achieved in 2010. Despite producing around 2.5 million tonnes of ferrochrome in 2011, China remains a net ferrochrome importer with 1.8 million tonnes imported in 2011. This represents 42% of total Chinese demand of which South Africa supplied 1.1 million tonnes, an increase of 18% on the previous year.

The Chinese chromite ore market continues to grow strongly with 9.4 million tonnes imported in 2011, an increase of 9% on the previous year. South Africa supplied around 50% of the chromite imported into China, a 51% increase on 2010's record volumes. These exports of chrome ore to China are advancing the development of the ferrochrome industry in China, displacing capacity in South Africa and undermining South African sales of beneficiated chrome ore in the form of ferrochrome. The South African ferrochrome industry has brought this situation to the attention of the Government of South Africa and is engaging with the Government of South Africa to protect South Africa's chrome ore reserves and its mature chrome beneficiation industry.

During 2011, the European benchmark contract price for ferrochrome was an average of 125 US¢ per pound, a 0.6% increase from the previous year.

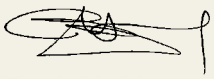
## Internal controls

Internally, we examined our risk management processes and developed a risk framework and policy. We are now developing a new risk register and putting in place internal controls where we have identified risks through our enterprise risk management process. We will be presenting our risk framework and policy to our board for its approval in the first quarter of 2012.

We also spent time streamlining our finance function and, at the request of the Audit Committee, will be investigating the introduction of an internal audit function at our corporate office.

## Going forward

While we expect 2012 will be another challenging year, we are well placed to weather difficult times. I refer you to our Future outlook section on page 98 for more information on future demand for ferrochrome.



*Zanele Matlala*

Chief Financial Officer



# Economic performance (continued)

## Abridged consolidated statement of financial position

| | Year ended 31 Dec 2011 Audited R'000 | Year ended 31 Dec 2010 Audited R'000 |
|---|---|---|
| Assets | | |
| Property, plant and equipment | 2 372 768 | 2 192 600 |
| Total non-current assets | 2 372 768 | 2 192 600 |
| Inventories | 1 065 932 | 865 251 |
| Trade and other receivables | 262 979 | 435 514 |
| Current tax asset | – | 3 519 |
| Cash and cash equivalents | 220 459 | 320 724 |
| Total current assets | 1 549 370 | 1 625 008 |
| Total assets | 3 922 138 | 3 817 608 |
| Equity | | |
| Share capital | 24 932 | 24 767 |
| Share premium | 1 262 481 | 1 253 568 |
| Equity-settled share-based payment reserve | 31 759 | 24 391 |
| Retained income | 1 339 496 | 1 272 279 |
| Total equity attributable to equity holders | 2 658 668 | 2 575 005 |
| Liabilities | | |
| Loans and borrowings | 312 778 | 312 786 |
| Provision for close down and restoration costs | 48 396 | 39 439 |
| Deferred tax | 506 204 | 469 534 |
| Total non-current liabilities | 867 378 | 821 759 |
| Trade and other payables | 375 946 | 408 965 |
| Loans and borrowings | 508 | 831 |
| Financial liability | 6 098 | 11 048 |
| Current tax liability | 13 540 | – |
| Total current liabilities | 396 092 | 420 844 |
| Total liabilities | 1 263 470 | 1 242 603 |
| Total equity and liabilities | 3 922 138 | 3 817 608 |

## Abridged consolidated statement of comprehensive income

| | Year ended 31 Dec 2011 Audited R'000 | Year ended 31 Dec 2010 Audited R'000 |
|---|---|---|
| Revenue | 2 426 755 | 2 558 441 |
| EBITDA | 379 825 | 529 815 |
| Depreciation | (153 113) | (113 535) |
| Net financing costs | (21 565) | (24 997) |
| Profit before taxation | 205 147 | 391 283 |
| Taxation | (88 397) | (112 579) |
| Current tax | (29 433) | (20 180) |
| Deferred tax | (36 670) | (88 354) |
| Prior years under-provision | (17 783) | (4 045) |
| Secondary tax on companies | (4 511) | |
| Profit and total comprehensive income/(loss) for the period | 116 750 | 278 704 |
| Earnings per share (cents) | 5 | 11 |
| Diluted earnings per share (cents) | 5 | 11 |
| Headline earnings per share (cents) | 6# | 11# |
| Diluted headline earnings per share (cents) | 6# | 11# |
| Dividend per share (cents) | – | 2* |
| Ordinary shares in issue | 2 493 221 394 | 2 476 656 043 |
| Weighted average number of shares for the period | 2 478 541 751 | 2 463 152 779 |
| Diluted weighted average number of shares for the period | 2 486 859 923 | 2 481 965 326 |

** This relates to a dividend that was declared by the board on 25 February 2011*
*# Headline earnings reconciliation*

| | | |
|---|---|---|
| | *R158 million* | *R269 million* |
| *Total comprehensive income for the year* | *R117 million* | *R279 million* |
| *Profit on disposal of property, plant and equipment* | *–* | *(R10 million)* |
| *Impairment* | *R41 million* | *–* |

# Economic performance (continued)

## Abridged consolidated statement of cash flows

| | Year ended 31 Dec 2011 Audited R'000 | Year ended 31 Dec 2010 Audited R'000 |
|---|---|---|
| Profit before taxation | 205 147 | 391 283 |
| Interest paid | 32 853 | 33 853 |
| Interest received | (11 288) | (8 856) |
| Depreciation | 153 113 | 113 535 |
| Adjusted for non-cash items | 7 368 | 2 488 |
| Adjusted for working capital changes | (43 113) | (240 249) |
| Cash flows from operations | 344 080 | 292 054 |
| Interest paid | (29 186) | (31 373) |
| Interest received | 10 383 | 8 856 |
| Profit on disposal of property, plant and equipment | – | (13 275)@ |
| Tax paid | (30 157) | (23 715) |
| Cash flows from operating activities | 295 120 | 232 547@ |
| Cash flows from investing activities | (404 404) | (257 223) |
| Insurance proceeds on disposal of property, plant and equipment | | 13 275@ |
| Acquisition of property, plant and equipment – expansionary | (230 801) | (103 372) |
| Acquisition of property, plant and equipment – sustaining | (173 603) | (167 126) |
| Cash flows from financing activities | (44 974) | (94 402) |
| | | |
| Dividends paid | (49 533) | (49 187) |
| Secondary tax on companies paid | (4 511) | (4 045) |
| Proceeds from issue of shares | 9 078 | 9 670 |
| Decrease in non-current borrowings | (8) | (50 840) |
| Net decrease in cash and cash equivalents | (154 258) | (119 078) |
| Cash and cash equivalents at the beginning of the year | 320 724 | 462 632 |
| Effect of exchange rate fluctuations on cash held | 53 993 | (22 830) |
| Cash and cash equivalents at the end of the period | 220 459 | 320 724 |

@ *The 2010 insurance proceeds on disposal of property, plant and equipment was reclassified from operating activities to financing activities to more appropriately present the nature of this item. The effect on net cash from operating activities is a decrease of R13.3m and the effect on net cash utilised in investing activities is an increase of R13.3m. There is no effect on the cash and cash equivalents balance as previously reported.*

The Motswedi pelletising and sintering plant at Boshoek ferrochrome plant, North West province



# Operational performance

In 2011 the Venture tailored its production to be in line with market demand, which was relatively poor this year. We produced 1 284 690 tonnes of ferrochrome which is 12% less than our ferrochrome production in 2010 and which represents 65% of our installed production capacity.

In 2011 the Venture sold 1 239 625 tonnes of ferrochrome (1 417 691 tonnes in 2010).

## Costs

Our major challenge this year was containing costs. Our ore costs increased 24% and electricity costs increased 23%. Despite above mining inflation price increases we contained our cash production cost increase to 14% year-on-year. We achieved this by:

- increasing our use of lower-priced UG2 ore
- managing our electricity consumption during peak tariff periods
- our ongoing initiatives to optimise our reductant mixes, which reduced our average reductant costs by 6% year-on-year
- using our most efficient furnaces
- re-allocating employees from furnaces that were not operating to vacant positions elsewhere in the business
- scheduling furnace outages and maintenance during the winter months when South African electricity tariffs are higher.

During the year production at our Lion and Lydenburg ferrochrome plants was also affected to a limited extent by strike action. Our Boshoek, Rustenburg and Wonderkop ferrochrome plants were more seriously disrupted by strike action.+

## Developments

Following on the agreement the Venture reached with Lonmin in 2010 to increase and extend our current UG2 offtake agreement from its Marikana operations, we erected two chromite recovery plant modules at the Rowland shaft and a third module at the Karee 4 processing plant at a capital cost of approximately R216 million. The plants, which were commissioned during the first half of 2011, were completed within budget and on schedule.

Onsite construction of the Tswelopele pelletising and sintering plant adjacent to our Rustenburg ferrochrome plant started in April and is on track and schedule for completion during the second half of 2012. The plant is expected to ramp up to full production of 600 000 tpa in 2013.

Work on Phase II of the Lion ferrochrome plant and Magareng Mine, which will supply the plant with chrome ore, began during the first half of 2011 and is progressing well. We expect to commission the plant during 2013. Bulk earthworks are almost complete and the first structural steel deliveries to site have begun. All long lead items have been ordered and some of the components for the plant's kiln have already been manufactured.

The completion date of the Magareng Mine was moved forward. The mine's processing plant will be operating by the fourth quarter of 2012 and the mine is scheduled to achieve full underground production by the end of the first quarter of 2013.

The extension of our Waterval East Mine was completed and production start-up began during May 2011.

The Horizon Mine development, which increases the mine's capacity to 40 000 tpm, is almost 12 months ahead of schedule.

The Venture was granted Prospecting Right 2798 (PR) granted on 8 February 2012 over the farms St George and Richmond, a total of 4 020 hectares, applying to minerals in the chromitite seams which is contiguous to the Thorncliffe mining complex. Prospecting will commence during 2012.

## Summary Venture production data

| | 2011 | 2010 | % change |
|---|---|---|---|
| Average ferrochrome product (kt) | 1 285* | 1 465* | (12.3) |
| Average ferrochrome European base price (c/lb) | 125.0 | 124.3 | 0.6 |

*• Merafe's share of the Venture's production is 20.5%*

*Dr Jurg Zaayman*

General Manager: Merafe Chrome



See the Industrial action section on page 37

## Product stewardship

The Venture maintains an integrated system, which identifies, analyses, evaluates and treats impacts and risks associated with its product throughout its life cycle, including the stages which may be beyond its direct control, such as use, recovery, recycling and disposal.

Xstrata plays an active role in the International Council on Mining and Metals' (ICMM) initiatives that contribute to product stewardship and innovation, including the ICMM Guide on Material Stewardship.

The Venture has participated in a life cycle inventory (LCI) project for primary ferrochrome production. The scope of the project was to create LCI for 1 kg of chromium contained in ferrochrome. The project includes the mining of chrome ore and transportation to the smelters, the transport of reductants and fluxes to the smelters and the smelting and production of ferrochrome up to the gate of the smelters. The Venture is collaborating with other South African producers on this project.

To ensure the quality of its products the Venture's systems are aligned with the requirements of ISO 9001: 2008 and some of the smelters have been certified. Its laboratories are ISO 17025: 2005 accredited, which ensures that the methods and equipment used are accurate.

Ferrochrome is the final product produced by the Venture. None of the Venture's products are produced from secondary material. In terms of customer health and safety, there are no material health or safety complications related to the final product produced and marketed by the Venture.

Most of the ferrochrome it produces is used in the manufacture of stainless steel. Stainless steel is not a single alloy but rather the name applies to a group of iron-based alloys containing a minimum of 10.5% ferrochrome. Other elements, such as nickel and molybdenum, are added and the chromium content increased to improve corrosion resistance, improve heat-resisting properties, and to improve fabricating characteristics. There are over 60 stainless steel grades that were originally recognised by the American Iron and Steel Institute (AISI). The presence of ferrochrome creates an invisible surface layer that prevents the rusting of the iron base by forming a complex chrome oxide that will not allow oxygen to attack the surface.

A global life cycle inventory (LCI) study has also been carried out by the International Stainless Steel Forum (ISSF) to quantify resource use, energy and environmental emissions associated with the processing of eight stainless steel industry products, from the extraction of raw materials in the ground through to the steel factory gate. The eight products included in the study are the main stainless steel grades and finishes.

The ISSF also developed a methodology for allocation of credits for recycling in order to assess accurate profiles of stainless steel products. The methodology is consistent with the ISO standard conforming methodology used by the International Iron and Steel Institute (IISI) for carbon steel. The LCI data with recycling credit were calculated by using LCI data both in the case of production based on 100% virgin metal and in the case of production based on 100% recycled scrap. In the methodology report it is demonstrated that stainless steel is a highly sustainable material and that the recycling ratio at end of life is a very significant factor when assessing the environmental profile of a metal like stainless steel.

As stainless steel is a corrosion resistant alloy its life expectancy is usually long. It requires a minimum of maintenance and offers attractive life-cycle cost benefits over alternatives such as carbon steels. Stainless steel is easily cleaned and is therefore an obvious choice for catering equipment and the food and beverage manufacturing industries.

The steel is melted electrically and, in most cases, it is refined by using inert air distilled gases such as argon. Great care is taken to minimise fume and dust emissions. Some plants are equipped to recycle dust into the steel making process. Most of the steel processing consumable materials, including cooling water, lubricating oils, pickling acids and interleaving paper are recycled in the plant or by specialist contractors.

Ferrochrome is not sold as a retail product. As a result no marketing communications, advertising promotion or sponsorship is involved in the sale of this product. Sales are negotiated directly with stainless steel producers.

# The Venture's stakeholder engagement

Stakeholder engagement is an integral part of the Venture's sustainable development and risk management strategies. Our engagement with internal stakeholders includes our employees, trade unions, contractors and business partners. During 2011 there was strike action at our smelting operations+ and we will be devoting time and effort to mending the relationships that became strained during these strikes. Engaging with external stakeholders includes the communities in which we operate, our customers, government at national, provincial and local levels, regulators, the media, financial institutions, suppliers, our partners, advocacy groups and any others interested in or affected by our business.

We believe that in order to build meaningful mutually beneficial relationships with our stakeholders, the most important thing we need to do is understand their expectations, so we can meet or manage them. While this is important in all areas of stakeholder engagement, it is particularly so in our engagement with our employees and the communities in which we operate. It is also important that we engage with government and regulators in a spirit of cooperation. We wish to form stronger connections with the communities in which we operate. During 2011 there was serious community unrest in the Sekhukune District which affected the Lion ferrochrome plant. The publicity around the development of Lion II and Magareng Mine created expectations of immediate benefit in the form of employment and competition for who should be gaining from these economic opportunities resulted in protest action. We established a Community Consultative Forum to discuss and address issues. These protests and the ensuing discussions provided valuable insight into these communities that will be helpful in future stakeholder engagement in the area. The Venture also invested in community radio programmes and newsletters to improve understanding of the mining industry and the Venture in particular.

Employees filling in work permit books



For more information see page 37

| Stakeholder | Summary of material issues | Methods of engagement | Frequency of engagement | Key topics and concerns raised at the engagement and response/s to these |
|---|---|---|---|---|
| **Government – national and provincial governments, district and local municipalities** | | | | |
| Department of Environmental Affairs (DEA) | • Ambient air standards<br>• Sponsorship in air monitoring programmes | • Workshops<br>• Members of air quality working groups<br>• Meetings<br>• Forums<br>• Provision and sponsorship of training courses | Ongoing | Engagement allows us to give input into proposed legislation, to understand DEA thinking and share environmental knowledge including<br>• Sharing of best practice<br>• Discussion of industry issues<br>• Providing technical assistance to government and others |
| Department of Water Affairs (DWAF) | • Integrated water and waste management strategies | • Presentations<br>• Development of integrated water management programmes<br>• Active participation with DWAF | Ongoing | • Access to water<br>• Water and waste management<br>• Water licences<br>Engagement allows us to give input into proposed legislation, understand DWAF aims and intentions and share best practice |
| Health authorities | • Capacity building within health facilities and construction of health facilities in collaboration with the Department of Health (DoH) | • Working with provincial health departments to align processes and systems<br>• Participation in Public Private Partnerships (PPPs) | Ongoing | • Interacting with health departments at national, provincial and municipal level with the aim of supporting efforts to improve the provision of healthcare in communities neighbouring our operations. This has resulted in us forming a PPP to provide healthcare facilities and extending our wellness programme to communities |
| Department of Mineral Resources (DMR) | • Mining Charter compliance<br>• Drafting of new Mining Charter<br>• Mining rights | • With DMR directly and through Chamber of Mines and SA Mining Development Association (SAMDA) | Ongoing | • Following the release of the Codes of Good Practice for the Minerals Industry (Mining Code) in April 2009, the Venture undertook a review of its progress on transformation which culminated in the development of its principle positions on the next phase of transformation. These positions, which align with government's national imperatives, served as a basis for engagement. The Venture engaged with its peers in the mining industry and secured their agreement regarding the overarching principles it believed should be applied in the new Mining Charter together with a proposed balanced scorecard. The mining industry then shared their ideas with the DMR and engaged through the MIGDETT process. The culmination was the revised Mining Charter and Mining Scorecard issued in September 2010 |
| Local municipalities | • Integrated Development Plans (IDP) | • Partnering with local municipal authorities | Ongoing | • Infrastructure in need of repair, provision of roads, running water, community centres and business parks. We partner with local authorities to improve living conditions for our employees and the communities in which we operate. Refer to the Community development section of this report for further details |

# The Venture's stakeholder engagement (continued)

| Stakeholder | Summary of material issues | Methods of engagement | Frequency of engagement | Key topics and concerns raised at the engagement and response/s to these |
|---|---|---|---|---|
| **International industry bodies** | | | | |
| International Chrome Development Association (ICDA)<br><br>REACH (Registration, Evaluation, Authorisation of Chemicals) | • Development of product knowledge and best practices<br>• HSE risk assessments<br>• Development of requirements for REACH registration and implementation<br>• Integrated projects with downstream users<br>• Material and chemical safety issues in EU for products up and downstream to ensure no risks associated with importing products into EU | • HSE committee meetings and information sharing<br>• Technical committees<br>• Consortia involvement<br>• Meetings<br>• Director: Sustainable Development sits on steering committee, HSE and technical committees of these international bodies and consortia<br>• Xstrata Alloys is a member of ICDA and is also a member of the ICDA HSE committee | • Monthly and quarterly meetings<br>• Ongoing interaction on joint studies, etc | • Legal compliance<br>• Joint studies<br>• Cost sharing<br>• Development of REACH dossiers<br>• These consortia worked with REACH for the EU to ensure material and chemical safety. Xstrata Alloys' involvement ensured its products meet REACH standards for products imported into Europe |
| International Stainless Steel Federation | ICDA works closely with the ISSF | Co-development of research projects | Ongoing | Sharing information on efforts to reduce impact on climate change and product stewardship |
| **National industry bodies** | | | | |
| Northwest Air Pollution Control Forum (NAPCOF) | • Common industry problems<br>• Performance of operations or individual companies<br>• Interaction with government | • Bi-monthly meetings<br>• Presentations<br>• Engagement about air quality management plans<br>• Xstrata chairs forum | Regular meetings and ongoing communication between forum members | • Common problems, performance trends<br>• Technical assistance provided to government and others<br>• Sharing of best practice |
| Ferro Alloys Producers Association (FAPA) | • Focus specifically on ferrochrome industry issues, including management of slag, environment, health and all other sustainable development issues<br>• Slag reclassification from hazardous substance to a waste with beneficial use<br>• Climate change | • Meetings<br>• Venture chairs forum | Regular and ongoing | • Common problems and best practice and performance trends which are shared<br>• Progress on government understanding on management of issues |
| Kroondal Eco Forum and Northwest Eco Forum | • Impact of the Venture's operations on the environment | • Meetings<br>• Email<br>• Telephonic communication<br>• Direct access to Group Air Quality Specialist and Group Environmental Manager<br>• SMS messages regarding venting incidents (also sent to all interested parties) | • Query-by-query basis<br>• Quarterly meetings<br>• Regular meetings<br>• SMS messages<br>• Ongoing | • Complaints/concerns are recorded and addressed monthly<br>• Stakeholders are involved in operations' activities and have a clear understanding of what is happening and the steps being taken to improve sustainability performance<br>• Messages regarding venting incidents provide information about the incident and mitigating action taken |

| Stakeholder | Summary of material issues | Methods of engagement | Frequency of engagement | Key topics and concerns raised at the engagement and response/s to these |
|---|---|---|---|---|
| **Communities** | | | | |
| Communities surrounding the Venture's operations | • Impact of operations (environmental and social)<br>• Consultation on proposed new projects or changes to existing operations<br>• Community needs<br>• Enterprise development and local procurement<br>• Traditional rights and cultural heritage<br>• Sustainable communities | • Complaints register at each site<br>• Social development meetings with community<br>• Annual community open days at all operations<br>• Social and labour plans for each site<br>• Grievance and conflict resolution mechanisms | • Quarterly meetings<br>• Ongoing ad hoc communication including meetings, emails and letters<br>• Annual open days | • Community radio programmes and newsletters<br>• Regular scheduled quarterly meetings are held by the Venture to discuss operational issues that might have a significant impact on the community, or that are of interest to the communities in the vicinity of the operations. A register is kept of who attends, what is discussed and what actions resulted from the engagement sessions<br>• Ad hoc meetings are also held when issues either arise from the operation, or are raised by the community. Open days were held at operations during the year. Communities were also engaged through the Integrated Development Plans (IDP) and Local Economic Development (LED) forums<br>• Baseline studies were undertaken in 2009 and 2011 to identify the needs of the communities in the vicinity of our operations and to identify suitable Social and Labour Plan projects. Other responses to community needs addressed as a result of community engagement include upgrading schools, providing bursaries and tertiary education opportunities through the Venture's community development programme, assisting SMMEs with facilities such as an SMME business park at Kroondal and training in business skills<br>• A register of community complaints is maintained at each operation and complaints are dealt with at operational level<br>• All of the Venture's operations appointed Community Development Officers with the aim of improving engagement with communities<br>• A stakeholder perception survey was conducted during the year to assess the perceptions of members of the surrounding communities. The survey provided valuable feedback that will be used to improve aspects of community engagement in the future |

# The Venture's stakeholder engagement (continued)

| Stakeholder | Summary of material issues | Methods of engagement | Frequency of engagement | Key topics and concerns raised at the engagement and response/s to these |
|---|---|---|---|---|
| **Employees** | | | | |
| Employees, their families and dependants | • Remuneration and benefits<br>• Workers' rights<br>• Skills development, training, career development and career opportunities<br>• Health and safety<br>• Community issues including HIV and AIDS, housing and job creation<br>• Employment equity and non-discrimination<br>• Company news | • Newsletter for Venture employees and newsletters at each operation<br>• Posters<br>• Digital messaging boards<br>• Industrial theatre<br>• Employee briefings<br>• Green area meetings<br>• Company intranet<br>• Induction training<br>• Business principles<br>• Communication forums at each operation<br>• Toolbox talks<br>• Skills development committees<br>• Employment equity committees<br>• Occupational health and safety committees<br>• Ethics line<br>• Performance reviews<br>• Cultural surveys<br>• Grievance and conflict resolution mechanism | Ongoing regular engagement | • Employees are kept informed on business issues, what is expected of them and which Business Principles they are expected to adhere to<br>• Employees understand they are free to join a trade union<br>• Training and communication raises employee awareness regarding health and safety issues<br>• Career opportunities and career development discussed during performance reviews<br>• Community issues covered in communication forums, briefings, etc<br>• Employees communicate in confidence regarding behaviour that is contrary to the company's business principles<br>• Surveys inform company of employees' levels of satisfaction and issues that may need addressing |

| Stakeholder | Summary of material issues | Methods of engagement | Frequency of engagement | Key topics and concerns raised at the engagement and response/s to these |
|---|---|---|---|---|
| **Customers** | | | | |
| Customers | • High quality products<br>• Product stewardship<br>• Contract terms and delivery<br>• Reliability of supply<br>• Maintaining strong ongoing customer relationships | • Glencore International AG (Glencore) and the Venture's marketing team are responsible for maintaining the Venture's relationships with customers to whom they market the ferrochrome it produces | Ongoing | Typically the material issues are raised by customers at engagement and are addressed by Glencore and/or our marketing team |
| **Trade unions** | | | | |
| Trade unions | • Workers' rights<br>• Remuneration<br>• Health and safety<br>• Consultation on future operational changes<br>• Increase in basic wages<br>• Improved housing benefits<br>• Increase in various allowances<br>• Increase in leave entitlement<br>• Employee shares<br>• Reduction in working hours<br>• Production bonus<br>• Long service award (increase in values)<br>• Service increment<br>• More than one full-time shop steward per unit | In terms of the mines and smelters that make up the Venture, employees are represented by the National Union of Mineworkers (NUM), Association of Mineworkers and Construction Union (AMCU), Solidarity and the National Union of Metal Workers of South Africa (NUMSA). Recognition agreements and union structures are used for the purposes of consultation and communication on union matters<br>The relationship and engagement are dictated by various collective agreements, applicable labour legislation and management/union structures | • Monthly meetings<br>• Ad hoc meetings based on subject matter and urgency | • Demands for amendments to terms and conditions of employment<br>• Dissatisfaction in the work environment (e.g. heat, dust, shift patterns, overtime, etc). These are responded to in line with our mandate, compliance with legislative requirements and the maintenance of workable relationships. Each topic requires and receives a specific response |
| **Suppliers** | | | | |
| Suppliers | • Requirements regarding supplier SD standards, sustainable development policies, practices and procedures<br>• Requirements regarding HDSA procurement and procurement policies<br>• Contract terms and delivery<br>• Technology transfer<br>• Legal compliance | • Tenders and supply contracts awarded by procurement committee<br>• HDSA status details of all potential suppliers required<br>• Scorecard established to measure procurement levels<br>• Human rights awareness training undertaken with suppliers | Ongoing | • Regular engagement by the Venture at all levels with Eskom regarding power supply and costs<br>• Suppliers are made aware of the SD standards, human rights standards and sustainable development policies, practices and procedures to which they must adhere when working on the Venture operations<br>• Engagement with suppliers has resulted in white suppliers being encouraged to take on HDSA partners and the Venture achieving 64.9% HDSA procurement in 2010 |

# Mineral Resources and Reserves

## Introduction

The purpose of this section of the report is to document the Mineral Resources and Reserves of Merafe Resources (Merafe) in accordance with the requirements of the SAMREC Code (The South African Code for the Reporting of Exploration Results, Mineral Resources and Reserves, 2007). All Merafe's operations are part of a pooling and sharing venture with Xstrata Alloys (the Xstrata-Merafe Chrome Venture known as the Venture). Merafe has a 20.5% participation interest in the Mineral Resources and Reserves of the Venture+. The estimates in this document are as at 31 December 2011. The reporting date has been moved forward from the end of June every year to the end of December to coincide with the Venture's financial year. The mined-out positions have been kept as at the end of June 2011. To arrive at a Mineral Resources and Reserves estimate for 31 December 2011, the budgeted production for July 2011 to December 2011 has been subtracted from the total estimates. The information in the tables on the following pages is based on information compiled by Competent Persons (as defined by the SAMREC Code).

## Statement by Competent Person

The Mineral Resource and Reserve statement was reviewed and the relevant data extracted and compiled by Pieter-Jan Gräbe (P-JG). P-JG as the Lead Competent Person, registered with the South African Council for Natural Scientific Professions (SACNASP, Private Bag X450, Silverton, 0127), Reg. No. - 400177/87 and holds a BSc. Hons. degree in Geology as well as a NHD in Metalliferrous Mining.
P-JG is a geologist with 25 years' experience in mineral exploration and mining geology, directly linked to the mining industry and is currently a full-time employee of Xstrata Alloys. P-JG consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.



*Pieter-Jan Gräbe*

Xstrata Alloys

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## Definitions

The following definitions (as per the SAMREC Code 2007) have been applied in estimation and categorisation of the Mineral Resources and Mineral Reserves disclosed within this document.

Mineral Resource: a concentration or occurrence of material of economic interest in or on the earth's crust in such form, quality and quantity that there are reasonable and realistic prospects for eventual economic extraction. The location, quantity, grade, continuity and other geological characteristics of a Mineral Resource are known, or estimated from specific geological evidence, sampling and knowledge interpreted from an appropriately constrained and portrayed geological model. Mineral Resources are sub-divided, and must be so reported, in order of increasing confidence in respect of geoscientific evidence, into Inferred, Indicated and Measured categories.

Inferred Mineral Resource: is that part of a Mineral Resource for which volume or tonnage, grade and mineral content can be estimated with only a low level of confidence. It is inferred from geological evidence and sampled and assumed but not verified geologically or through analysis of grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that may be limited in scope or of uncertain quality and reliability.

Indicated Mineral Resource: is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on information from exploration, sampling and testing of material gathered from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological or grade continuity but are spaced closely enough for continuity to be assumed.

Measured Mineral Resource: is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable information from exploration, sampling and testing of material from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.

Mineral Reserve: the economically mineable material derived from a Measured or Indicated Mineral Resource or both. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a Pre-Feasibility Study for a project and a Life of Mine Plan for an operation

The assets owned by Merafe and contributed to the Venture are set out on page 2 under Our business and on page 124 in the Directors' report.

must have been completed, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors (the modifying factors). Such modifying factors must be disclosed.

Probable Mineral Reserve: is the economically mineable material derived from a Measured or Indicated Mineral Resource or both. It is estimated with a lower level of confidence than a Proved Mineral Reserve. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a Pre-Feasibility Study for a project or a Life of Mine Plan for an operation must have been carried out, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. Such modifying factors must be disclosed.

Proved Mineral Reserve: is the economically mineable material derived from a Measured Mineral Resource. It is estimated with a high level of confidence. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a Pre-Feasibility Study for a project or a Life of Mine Plan for an operation must have been carried out, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. Such modifying factors must be disclosed.

## Brief description of exploration activities

The Venture's exploration activities aim to increase geological knowledge and confidence in its Mineral Resource base and to comply with legislative requirements. Exploration is done on two fronts; exploration is done ahead of operations in current mining areas to support the mining activities, whilst project areas are explored to define and quantify new resources. Exploration is done on an annual basis, primarily through the drilling of vertical exploration drillholes. Geophysical surveys (airborne magnetic surveys) have been conducted on all major operating mines and projects. The bulk of the drillholes are drilled, as far as possible, on a pre-determined grid whilst further drillholes are drilled to target geological anomalies and to provide geological and geotechnical information for mine planning.

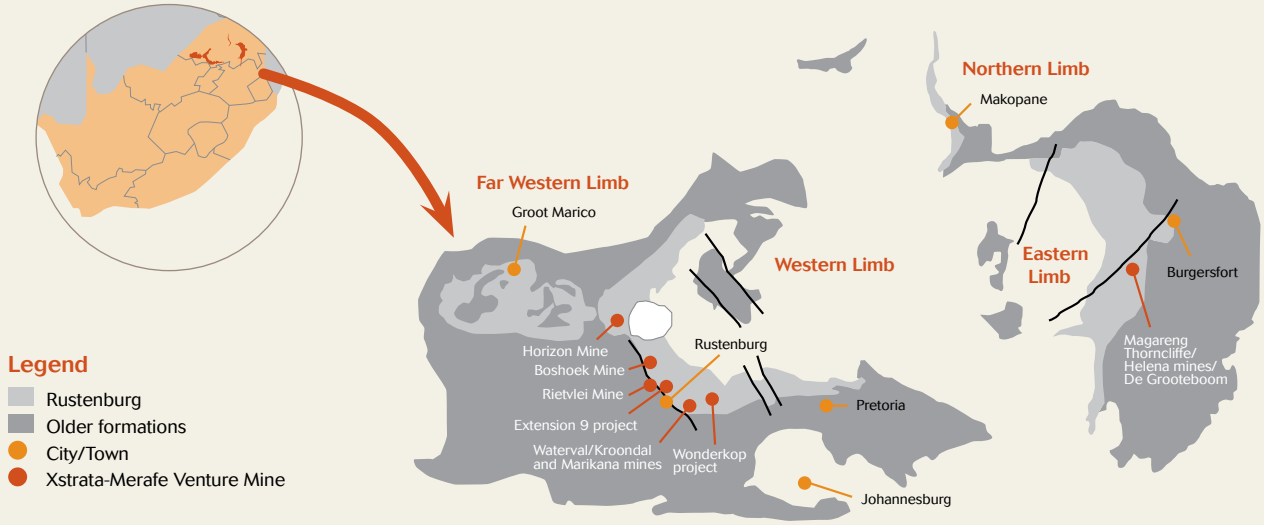
A total of R23.7 million was spent on drilling 23 697 metres of surface exploration drillholes for the Venture operations and projects in FY2011.

No feasibility studies were conducted during the reporting period.

## Geological setting

The Venture's chrome ore-bodies occur in the Bushveld Complex and its silica deposit occurs in the Magaliesberg Formation of the Transvaal Super Group (Figure 1). Both these geological occurrences are found in South Africa. Chrome ore is mined from both underground (mostly) and opencast workings, whilst silica is mined opencast only.

Figure 1: Location of the Venture's Operations



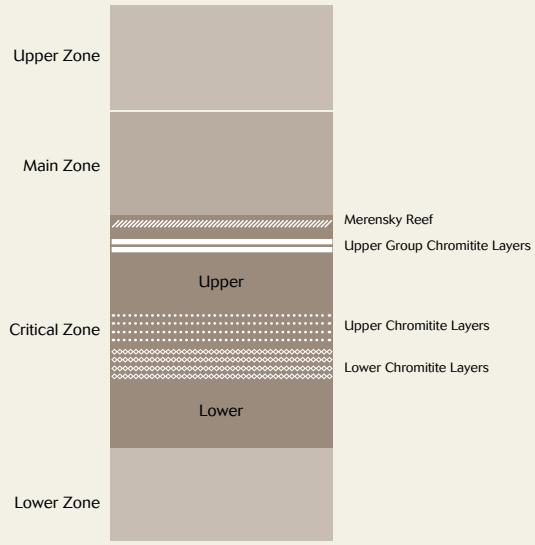
# Mineral Resources and Reserves (continued)

## The Bushveld Complex

The two billion year old Bushveld Complex (the Complex) is the world's largest known layered igneous intrusion and covers an area of 65 000km$^2$. The Complex is host to the majority of the world's PGM, chromite and vanadium resources.

The Complex is divided into five compartments; the Western Limb, the Eastern Limb, the Northern Limb, the Far Western Limb and the Bethal Limb (Figure 1). Merafe has operations on the Eastern and Western Limbs of the Complex. The Bushveld Complex is divided vertically into four suites of rocks; the Rooiberg Group, the Rustenburg Layered Suite, the Rashoop Granophyre Suite and the Lebowa Granite Suite. The mafic Rustenburg Layered Suite hosts the chromite deposits of the complex in the highly continuous chromitite layers of the Critical Zone. The complex reaches a vertical thickness of up to 9 000m. The Critical Zone contains 14 individually recognisable chromitite layers with varying thicknesses and grades. The primary chromitite layers targeted for chromite extraction are the LG6A and LG6 Chromitite Layers, usually mined as a package, and the MG1 Chromitite Layer. The LG6 Package consists of the lower LG6 Chromitite Layer which is separated from the LG6A Chromitite Layer by a pyroxenite (waste) middling. The MG1 Chromitite Layer consists of a single chromitite layer, with occasional discontinuous internal waste partings.

Figure 2: Schematic stratigraphy of the Rustenburg Layered Suite with special reference to the chromitite layers. (illustration not to scale)




## Magaliesberg Formation

The Magaliesberg Formation is made up of a package of individual layers of shale, quartzite and hornfels, which form a sub-formation of the Pretoria Group of the Transvaal Supergroup. The quartzite layers of the formation were formed by the deposition of sandstone sediments into the Transvaal Basin around 2.2 billion years ago. The Magaliesberg Formation is a massive sequence of quartzite and minor hornfels reaching a few hundred metres in thickness. The quartzites form a prominent topographical ridge (mountain range) around the rim of the Bushveld Complex. The Rietvlei deposit occurs along a prominent quartzite ridge which strikes north-south. The ore-body dips towards the east at dips varying between 320 – 620. Jointing throughout the formation is fairly prominent. The quartzite is very pure, with an average content of $SiO_2$ of over 90%. There are no indications on surface of major geological disturbances. A major regional fault (The Rustenburg Fault) is developed to the south-east of the mine (just off the mine property).

## Type of mining and mining activities

The Venture has chrome mining operations along the Western and Eastern Limbs of the Bushveld Complex. The operations along the Western Limb of the Bushveld Complex comprise the Waterval, Kroondal, Boshoek, Horizon and Wonderkop mines. The LG6 Package at both Waterval and Kroondal Mine is mined underground using trackless mining methods on a Bord-and-Pillar lay-out. Operations at the Waterval Mine were suspended in early 2009 due to the global economic downturn. The Waterval East Mine started up towards the middle of 2010. Boshoek Mine is 20km north-west of Rustenburg. The MG1, LG5 and LG6 Chromitite Layers are being mined in open pits. Horizon Mine lies just west of the Pilanesberg Complex. The LG6 Chromitite Layer is currently being mined at Horizon Mine through underground operations. Wonderkop Mine, Waterval/Klipfontein and Townlands Extension 9 are exploration projects.

Thorncliffe and Helena mines are situated along the southern portion of the Eastern Limb of the Bushveld Complex. The MG1 Chromitite Layer is being mined underground using trackless mining methods on a Bord-and-Pillar mining lay-out. De Grooteboom lies contiguous to and immediately north of Thorncliffe Mine.

The Venture's silica deposit lies 15km west of Rustenburg. Rietvlei Silica is an opencast mine. The quartzite is mined mainly to supply the Venture furnaces with silica.

## Ore production

The Venture has mined 3.912Mt ROM ore from 1 January to 31 December 2011 against a budget of 4.550Mt. The main contributors to the lower than budgeted ROM tonnage are Waterval East, Thorncliffe and Helena mines. The lower ROM production at Waterval East mine is mainly due to start-up delays, geological structural issues and mining operational issues. At Thorncliffe Mine the main reason for the lower production was due to equipment breakdowns, Section 54s, power outages and mining operational reasons. Helena Mine had a slower than planned build-up to production, due to

equipment breakdowns and adverse geological conditions. The 2011 ROM tonnage is marginally higher than the 2010 ROM production of 3.55Mt as production activities at the main production units remained more or less the same as the 2010 production year. Waterval East, Magareng and Helena mines are in build-up phases and increasing their production rates year-on-year.

The estimates in this statement reflect the Mineral Resources and Mineral Reserves as at 31 December 2011.

## Legal entitlement

The Venture has legal entitlement to mine the areas set out in this statement. All new order mining rights applications, mining right conversions, prospecting rights conversions and new order prospecting rights applied for by the Venture in respect of chrome have been granted and executed by the Department of Mineral Resources.

In accordance with the Wonderkop acquisition agreements (circular to shareholders July 2005) the Venture has the sole right to mine the Marikana Reserves until such time as the Reserves have been exhausted. Further, in terms of the agreement, the seller would convert their old order rights in terms of the Marikana Reserves to new order rights and thereafter a Section 11 transfer of these rights from the seller to Xstrata and Merafe would take place. The new order rights have been granted to the seller and the Section 11 transfer application has been submitted to the DMR. The granting of the Section 11 transfer is expected in 2012.

In respect of a portion of Horizon Mine (Ruighoek and Vogelstruis), an application to the High Court has been made by certain members of the Moloana family to review and set aside the conversion of mining rights granted by the Minister of Mineral Resources and to request that the conversion process start again. The Venture and the DMR have entered a notice to oppose the application. External legal advisors of the Venture are of the opinion that the application for the conversion process to be set aside is unlikely to be successful. This issue is ongoing and finality has not been reached.

## Description of the method and assumptions made to estimate Mineral Resources and Mineral Reserves

### Chrome

Raw geological data is validated through various steps and routines before being compiled into a final database. The database data is statistically and geostatistically analysed to determine the inherent characteristics and variability of the data. The ore-body characteristics that are analysed are the distribution and variability of the thickness, SG of the chromitites and the critical grade elements. The results of the geostatistical analysis are used as input parameters in the interpolation and extrapolation of the drillhole data to create a grade and thickness block model covering the entire mining or project area. The block models form the basis from which the tonnage and grades are reported for the various Mineral Resource and Mineral Reserve blocks and categories. The Mineral Resource categories are mainly based on the data point density. A data point density of 200m x 200m is used for the classification of Measured Mineral Resources. For Indicated Mineral Resources a density of between 200m and 400m is used. Inferred Mineral Resources will be classified where the density is lower than 400m x 400m. All the non-mineralised areas, and areas that may not be mined for various legislative or other reasons are excluded from the Mineral Resources, e.g. boundary pillars, crown pillars, large potholes, transgressive geological bodies, etc. The Mineral Reserves are estimated by applying modifying factors to convert the Indicated Mineral Resources to Probable Mineral Reserves and the Measured Mineral Resources to Proved Mineral Reserves. The following modifying factors are used: an estimated geological loss factor (determined by losses in mined-out areas and projected forward), the predetermined mining extraction rate, ore losses and ore contamination from mining over break. The Mineral Reserve areas are restricted to the five-year detailed mine plan, except in the case of Waterval, Thorncliffe and Kroondal mines. In these cases the LOM plans form the basis for the Mineral Reserves. No Inferred Mineral Resources have been converted to Mineral Reserves.

### Silica

The silica Mineral Resources are estimated by modelling the quartzite hill that is being mined. The volume of the quartzite hill is determined from the 1 340m level (amsl) to the current topographical surface. The volume is multiplied by the assayed SG for the Rietvlei quartzite to determine the in-situ tonnage. The quartzite is exposed through the opencast mine workings and along the slopes of the hill. Three core exploration boreholes have been drilled through the deposit since the last Mineral Resource Statement. The drilled core boreholes, the beneficiation process, the protruding hill itself as well as excavations from mining have been used as criteria for classifying the deposit as an Indicated Mineral Resource.

## Comparison of Mineral Resource and Mineral Reserve estimates with previous year's estimates

The annual Mineral Resource and Mineral Reserve estimates are compared with the previous year's statement and reconciled each year after the estimates have been finalised. Changes in the year-on-year tonnage and grade estimates are mainly due to mining depletion and changes in the Mineral Resource and Mineral Reserve tonnages and grades due to additional geological information.

# Mineral Resources and Reserves (continued)

## Mineral Resource reconciliation

The year-on-year change in chromitite resource tonnages is most prominent at the Thorncliffe, Helena, Wonderkop and Extension 9 properties. The change at Thorncliffe is mainly due to geological structural features and the re-estimation of the resources. The increase at the Helena property is mainly due to geological structural features, a river boundary correction and the re-estimation of the resources. The Wonderkop property had a decrease in resources mainly due to the re-estimation process, correction of the mining right boundary and geological structural losses. The net change in Mineral Resources tonnage for every property after mining depletion is shown in the table on page 66.

There is no material difference in the silica Mineral Resource estimate from June 2010 to December 2011 and the change is almost entirely attributed to mining depletion.

## Mineral Reserve reconciliation

The biggest year-on-year changes in the Ore Reserves were recorded at the Kroondal Gemini, Horizon and Thorncliffe properties. The reserve increase at Kroondal Gemini is mainly due to Inferred Mineral Resources upgraded to Indicated Mineral Resources and subsequently modified to Mineral Reserves and a change in the mining extraction rate.
The Horizon Mineral Reserves were estimated and declared for the first time, hence the increase. Thorncliffe had a net increase in Mineral Reserves mainly due to Inferred Mineral Resources upgraded to Indicated Mineral Resources followed by the modification of those Mineral Resources to Mineral Reserves.

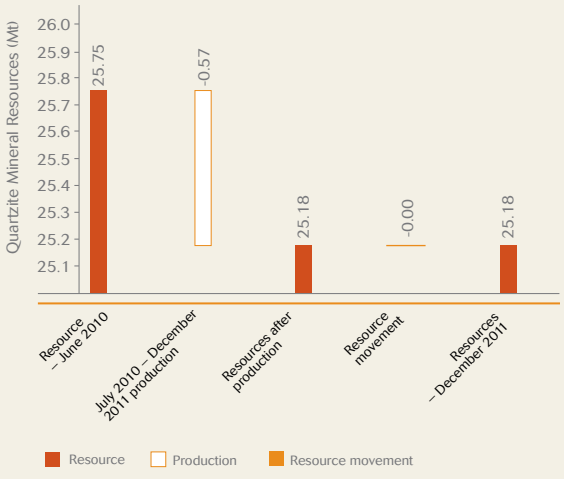
## Auditing

Both internal and external audits are conducted annually on the estimation process. The 2011 estimation process was audited internally by Xstrata Alloys Auditing Services. The internal audit report is presented to the Xstrata plc Audit Committee. The internal audit focused on verifying whether the estimation process complied with the Xstrata in-house "Procedure for the Estimation of Mineral Resources and Ore Reserves" and the requirements of the reporting code. Gemecs Proprietary Limited conducted the external audit for the 2011 estimation process. The external audit focused on verifying compliance to the JORC and SAMREC Codes and compliance to the in-house "Procedure for the Estimation of Mineral Resources and Ore Reserves". The external audit involved site visits to the Thorncliffe chrome mining complex as well as Xstrata Mining Division Head Office.
No major issues were raised and the minor issues raised will be addressed during the current reporting period.

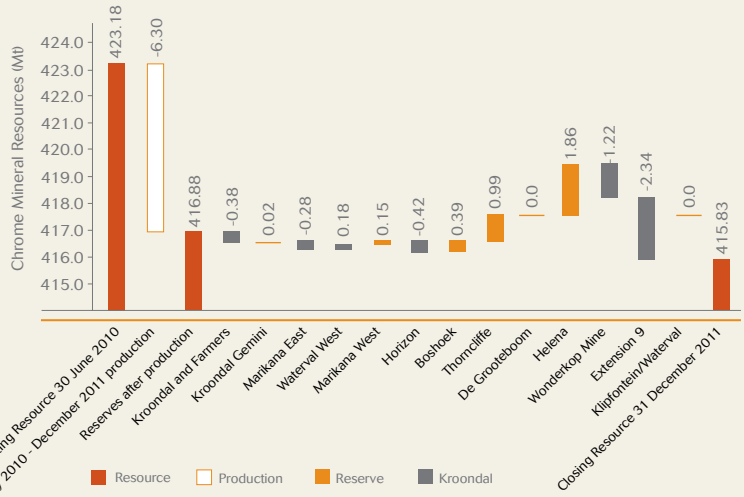
## Statement regarding Inferred Mineral Resources and feasibility studies

No feasibility studies were conducted during the reporting period and hence no Inferred Mineral Resources have been included in any feasibility studies. No Inferred Mineral Resources have been modified to Mineral Resources.

Quartzite Mineral Resources




Chrome Mineral Resources



## Material risk factors

There are no foreseen material risk factors that could affect the validity of the current Mineral Resource and Mineral Reserve statement. Other than the application by the Moloana family to review the Mineral Rights at Ruighoek and Vogelstruisnek of Horizon, there are no legal proceedings or material conditions that could affect mining or exploration activities for the Venture. All the legislative requirements have been met with respect to the rights to mining and prospecting for which the Mineral Resources and Mineral Reserves have been reported. All the operating mines are mining under new order, executed Mining Rights. The Prospecting Rights of all the prospecting areas have been converted to new order Prospecting Rights.

## Summary of environmental funding and management

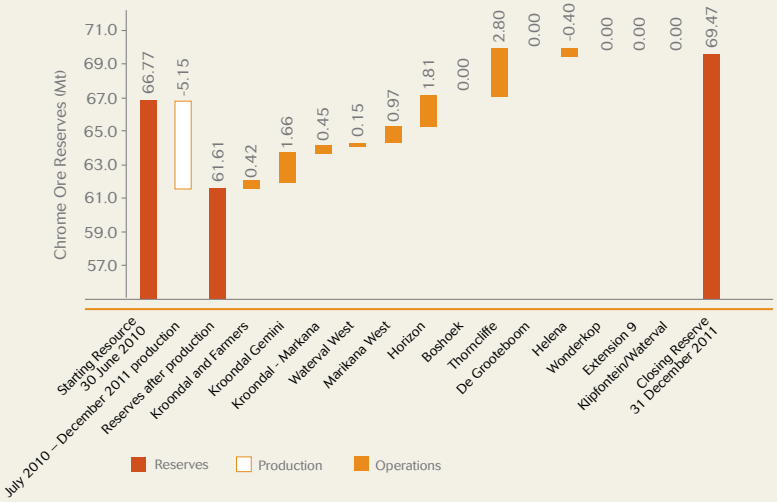
All Venture operations have developed and implemented their own environmental management programmes (EMP) and systems which are fully aligned with ISO 14001 and the ICMM principles of sustainable development. All operations follow the Xstrata in-house 17 Sustainable Development Standards which were compiled based on ISO standards. Baseline biodiversity and landscape function studies are conducted at the feasibility or exploration phase of projects and environmental risk assessments associated with impacts on biodiversity and landscape functions are undertaken for new operations or major changes to existing operations. Information from these studies is used, in consultation with the affected parties and concerned external stakeholders, for the development and implementation of biodiversity and landscape function management systems and programmes.

Various audits are conducted across the operations. These range from first and second level internal audits to third party external audits. The Venture also makes use of specialist reports where necessary. The Venture sets targets and effectively measures environmental performance against such targets and benchmarks their performance against leading practices in the industry. Such targets and performances are reviewed at regular intervals to ensure continual improvement of environmental performance. All employees are coached and trained regarding the efficient use of natural resources, reducing input material and waste. All operations have closure plans which entail the rehabilitation of all disturbed areas, buildings etc. These plans are reviewed annually and amended where applicable. They include closure cost estimates and anticipated costs of rehabilitation and restoration are provided for throughout the life of the operations. The estimated rehabilitation costs are provided for by means of a bank guarantee. Day-to-day cost relating to environmental issues is budgeted for on an annual basis.

## Mineral Resources and Mineral Reserves statement

The date at which the Mineral Resources and Mineral Reserves are stated has changed from 30 June each year to 31 December each year to coincide with the financial year.

Chrome Ore Reserves



# Mineral Resources and Reserves (continued)

## Chrome Mineral Resources statement

| | | | | Measured Mineral Resources | | Indicated Mineral Resources | | Measured and Indicated Mineral Resources | | Inferred Mineral Resources | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Name of operation | Merafe participation interest | Mining method | Commodity | 31.12.11 | 30.06.10 | 31.12.11 | 30.06.10 | 31.12.11 | 30.06.10 | 31.12.11 | 30.06.10 | Competent Person |
| Operating mines | | | | | | | | | | | | |
| Waterval Mine | 20.5% | UG | Chrome ore (Mt) | 16.530 | 16.157 | 1.36 | 1.90 | 17.89 | 18.06 | 0.6 | 0.3 | NM/DR |
| | | | $Cr_2O_3$(%) | 41.2 | 41.26 | 42.5 | 42.4 | 41.3 | 41.4 | 43 | 43 | |
| Marikana West | 20.5% | UG | Chrome ore (Mt) | 3.217 | 3.733 | 2.06 | 1.51 | 5.27 | 5.24 | – | – | NM/DR |
| (Waterval Mine Ext) | | | $Cr_2O_3$(%) | 42.34 | 42.36 | 42.7 | 42.7 | 42.5 | 42.5 | – | – | |
| Kroondal Mine | 20.5% | UG/OC | Chrome ore (Mt) | 9.995 | 10.378 | 1.89 | 2.50 | 11.89 | 12.87 | – | – | NM/DR |
| | | | $Cr_2O_3$(%) | 42.91 | 42.65 | 42.6 | 42.6 | 42.9 | 42.6 | – | – | |
| Kroondal Gemini | 20.5% | UG/OC | Chrome ore (Mt) | 9.846 | 11.163 | 7.76 | 6.04 | 17.61 | 17.21 | 0.2 | 0.9 | NM/DR |
| | | | $Cr_2O_3$(%) | 42.98 | 42.93 | 42.4 | 42.4 | 42.7 | 42.8 | 42 | 42 | |
| Marikana East | 20.5% | UG | Chrome ore (Mt) | 3.874 | 5.242 | 1.21 | 1.11 | 5.08 | 6.35 | 0.3 | 0.3 | NM/DR |
| | | | $Cr_2O_3$(%) | 42.41 | 42.62 | 42.3 | 42.1 | 42.4 | 42.5 | 42 | 42 | |
| Horizon Mine | 20.5% | UG/OC | Chrome ore (Mt) | 4.023 | 0.066 | 10.09 | 14.47 | 14.11 | 14.53 | 8.8 | 8.8 | NM/DR |
| | | | $Cr_2O_3$(%) | 44.99 | 41.80 | 44.0 | 44.4 | 44.3 | 44.4 | 45 | 44 | |
| Boshoek Mine | 20.5% | UG/OC | Chrome ore (Mt) | 0.739 | 1.413 | 16.87 | 15.93 | 17.61 | 17.34 | – | – | PJG/DR |
| | | | $Cr_2O_3$(%) | 40.38 | 40.28 | 40.4 | 40.2 | 40.4 | 40.2 | – | – | |
| Thorncliffe Mine | 20.5% | UG/OC | Chrome ore (Mt) | 41.322 | 40.510 | 12.51 | 12.13 | 53.83 | 52.64 | 13.6 | 16.3 | BS/DR |
| | | | $Cr_2O_3$(%) | 40.46 | 40.47 | 40.9 | 40.6 | 40.6 | 40.5 | 41 | 41 | |
| Helena Mine | 20.5% | UG/OC | Chrome ore (Mt) | 18.744 | 19.736 | 9.06 | 8.25 | 27.81 | 27.99 | 56.8 | 56.2 | BS/DR |
| | | | $Cr_2O_3$(%) | 40.53 | 40.35 | 39.5 | 39.1 | 40.2 | 40.0 | 39 | 39 | |
| Subtotal | | | Chrome ore (Mt) | 108.289 | 108.398 | 62.81 | 63.83 | 171.10 | 172.23 | 80.4 | 82.8 | |
| | | | $Cr_2O_3$(%) | 41.33 | 41.20 | 41.4 | 41.5 | 41.4 | 41.3 | 40 | 40 | |
| Projects | | | | | | | | | | | | |
| Wonderkop | 20.5% | UG | Chrome ore (Mt) | 0.452 | – | 6.84 | 5.87 | 7.29 | 5.87 | – | 2.2 | PJG/DR |
| | | | $Cr_2O_3$(%) | 40.20 | – | 40.5 | 40.5 | 40.5 | 40.5 | – | 40 | |
| Extension 9 | 20.5% | UG | Chrome ore (Mt) | – | – | 12.61 | 14.96 | 12.61 | 14.96 | – | – | PJG/DR |
| | | | $Cr_2O_3$(%) | – | – | 40.8 | 41.7 | 40.8 | 41.7 | – | – | |
| De Grooteboom | 20.5% | UG/OC | Chrome ore (Mt) | 0.808 | 0.804 | 0.66 | 0.65 | 1.47 | 1.46 | – | – | BS/DR |
| | | | $Cr_2O_3$(%) | 40.28 | 40.33 | 40.3 | 40.3 | 40.3 | 40.3 | – | – | |
| Klipfontein/Waterval | 20.5% | UG | Chrome ore (Mt) | 4.476 | 5.868 | 15.78 | 14.20 | 20.26 | 20.07 | 123.4 | 123.6 | NM/DR |
| | | | $Cr_2O_3$(%) | 42.82 | 42.61 | 42.6 | 42.5 | 42.7 | 42.5 | 42 | 42 | |
| Subtotal | | | Chrome ore (Mt) | 5.735 | 6.672 | 35.90 | 35.68 | 41.56 | 42.36 | 123.4 | 125.8 | |
| | | | $Cr_2O_3$(%) | 42.26 | 42.34 | 41.5 | 41.8 | 41.6 | 41.9 | 42 | 42 | |
| **Total** | | | Chrome ore (Mt) | 114.024 | 115.070 | 98.71 | 99.52 | 212.73 | 214.59 | 203.8 | 208.6 | |
| | | | $Cr_2O_3$(%) | 41.38 | 41.26 | 41.5 | 41.6 | 41.4 | 41.4 | 42 | 41 | |

*UG – Underground OC – Opencast*

**Notes**

- *Tonnages are quoted as million metric tonnes*
- *Grades are quoted as % $Cr_2O_3$*
- *The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce Ore Reserves*
- *No cut-off grades are applied to the chromitite layers currently being mined because of the exceptional regional grade consistency and continuity*
- *The Mineral Resources are estimated as chromitite tonnages and grades to reflect the grades of the various individual chromitite layers. Both the LG6 and MG1 Chromitite Layers which Xstrata is currently mining, are discrete solid chromitite layers*
- *Changes in the year-on-year Mineral Resource tonnage and grade estimates are mainly due to mining depletion and changes due to additional geological information gained through exploration*
- *Magareng Mine falls under Thorncliffe Reserves*

## Silica Mineral Resources statement

| | | | | Measured Mineral Resources | | Indicated Mineral Resources | | Measured and Indicated Mineral Resources | | Inferred Mineral Resources | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Name of operation | Merafe participation interest | Mining method | Commodity | 31.12.11 | 30.06.10 | 31.12.11 | 30.06.10 | 31.12.11 | 30.06.10 | 31.12.11 | 30.06.10 | Competent Person |
| Operating mine | | | | | | | | | | | | |
| Rietvlei | 20.5% | OC | Quartzite ore (Mt) | – | – | 25.18 | 25.75 | 25.18 | 25.75 | – | – | PJG |
| | | | $SiO_2$(%) | – | – | 91 | 97 | 91 | 97 | – | – | |
| **Total** | | | Quartzite ore (Mt) | – | – | 25.18 | 25.85 | 25.18 | 25.75 | – | – | |
| | | | $SiO_2$(%) | | | 91 | 97 | 91 | 97 | | – | |

## Chrome Mineral Reserves statement

| | | | | Proved Mineral Reserves | | Probable Mineral Reserves | | Total Mineral Reserves | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of operation | Merafe participation interest | Mining Method | Commodity | 31.12.11 | 30.06.10 | 31.12.11 | 30.06.10 | 31.12.11 | 30.06.10 | Competent Person |
| Operating mines | | | | | | | | | | |
| Waterval Mine | 20.5% | UG | Chrome ore (Mt) | 10.253 | 9.881 | 1.23 | 1.51 | 11.48 | 11.39 | NM/DR |
| | | | $Cr_2O_3$(%) | 31.35 | 31.18 | 26.5 | 26.0 | 30.8 | 30.5 | |
| Marikana West | 20.5% | UG | Chrome ore (Mt) | 0.973 | – | – | – | 0.97 | – | NM/DR |
| | | | $Cr_2O_3$(%) | 28.65 | – | – | – | 28.7 | – | NM/DR |
| Kroondal Mine | 20.5% | UG/OC | Chrome ore (Mt) | 3.227 | 3.040 | 1.66 | 2.00 | 4.89 | 5.04 | |
| | | | $Cr_2O_3$(%) | 28.28 | 28.73 | 27.8 | 27.8 | 28.1 | 28.4 | NM/DR |
| Kroondal Gemini | 20.5% | UG/OC | Chrome ore (Mt) | 6.288 | 6.935 | 6.94 | 4.94 | 13.23 | 11.88 | |
| | | | $Cr_2O_3$(%) | 31.49 | 31.14 | 28.7 | 28.6 | 30.0 | 30.1 | NM/DR |
| Marikana East | 20.5% | UG | Chrome ore (Mt) | 0.726 | 1.201 | 0.02 | 0.05 | 0.74 | 1.25 | |
| | | | $Cr_2O_3$(%) | 28.71 | 28.95 | 27.3 | 29.0 | 28.7 | 29.0 | BS/DR |
| Thorncliffe Mine | 20.5% | UG/OC | Chrome ore (Mt) | 25.660 | 26.039 | 6.56 | 5.43 | 32.22 | 31.47 | |
| | | | $Cr_2O_3$(%) | 37.90 | 38.60 | 39.1 | 39.1 | 38.2 | 38.7 | BS/DR |
| Helena Mine | 20.5% | UG/OC | Chrome ore(Mt) | 4.131 | 5.644 | – | 0.10 | | 5.74 | |
| | | | $Cr_2O_3$(%) | 34.96 | 34.31 | – | 31.5 | | 34.3 | |
| **Total** | | | Chrome ore (Mt) | 51.256 | 52.740 | 16.41 | 14.03 | 67.67 | 66.77 | |
| | | | $Cr_2O_3$(%) | 34.66 | 34.98 | 32.61 | 32.3 | 34.16 | 34 | |

**Notes**

- *Tonnages are quoted as million metric tonnes*
- *Grades are quoted as % $Cr_2O_3$*
- *No cut-off grades are applied to the chromitite layers currently being mined because of the exceptional regional grade consistency and continuity. A minimum mining cut of 1.7m is applied to the Ore Reserve tonnage to accommodate the mechanised mining equipment employed by the underground mining operations. External waste is included to make up the minimum cut where applicable*
- *The chromitite layers are mined mainly underground using trackless mechanised mining methods on a bord-and-pillar mine lay-out design*
- *Changes in the year-on-year Mineral Reserves tonnage and grade estimates are mainly due to mining depletion and changes due to additional geological information gained through exploration*
- *The underground Ore Reserves are reported at a minimum mining cut, which is related to the mining method and the mining equipment used*

*Competent Persons*

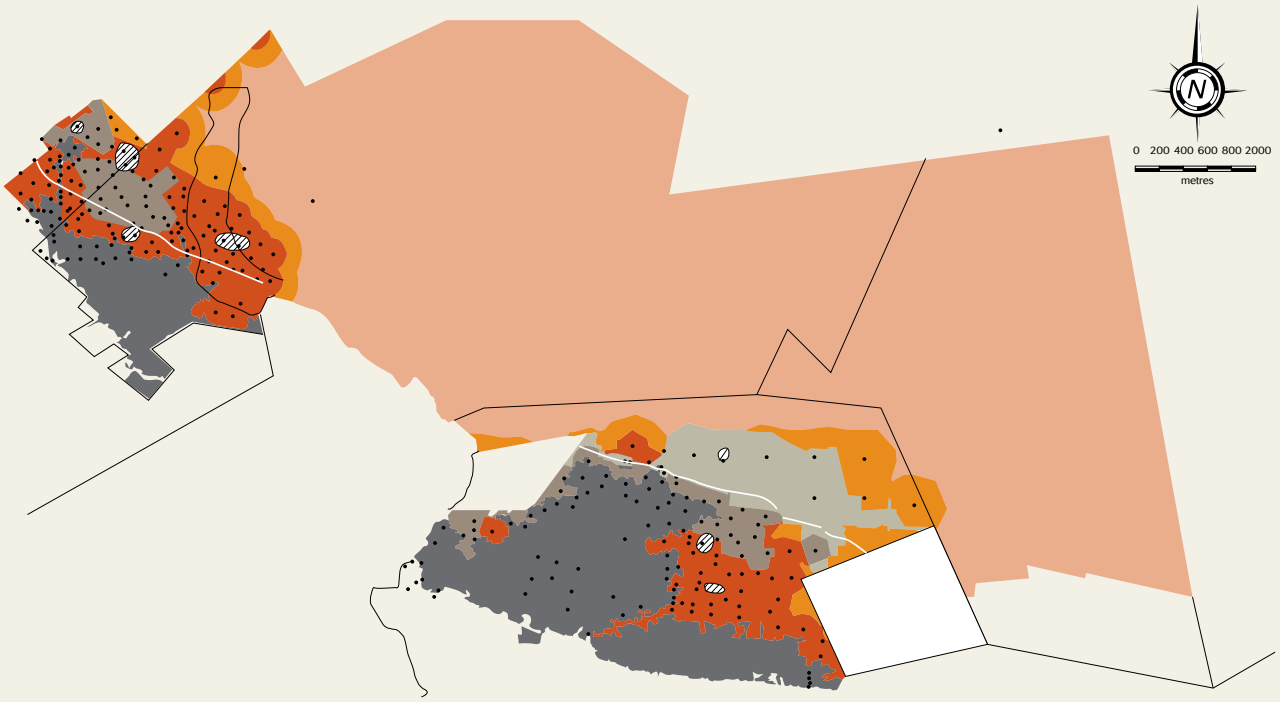
*PJG* *Pieter-Jan Gräbe, Xstrata Alloys (SACNASP). Overall Responsibility for Mineral Resources and Mineral Reserves*
*BS* *Brian Smith, Xstrata Alloys (PLATO). Overall Responsibility for Mineral Resources and Mineral Reserves*
*NM* *Nathi Mntungwa, Xstrata Alloys (SACNASP). Overall Responsibility for Mineral Resources and Mineral Reserves*
*DR* *Dean Richards, Obsidian Consulting Services (SACNASP). Responsible for geostatistical analysis of data, Mineral Resource classification and construction of tonnage and grade block models and reporting of tonnage and grades from block models*

# Mineral Resources and Reserves (continued)

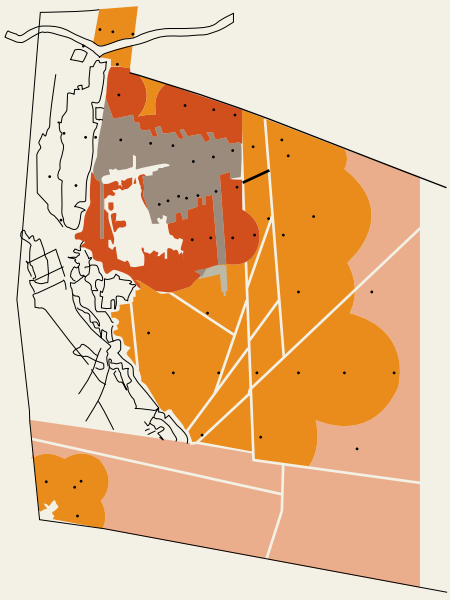
## Mineral Resource and Mineral Reserve maps

### Chrome – Bushveld Complex, Western Limb

Waterval East, Marikana West, Waterval/Klipfontein, Kroondal, Marikana East, Gemini and Wonderkop




Horizon Mine



Boshoek Mine



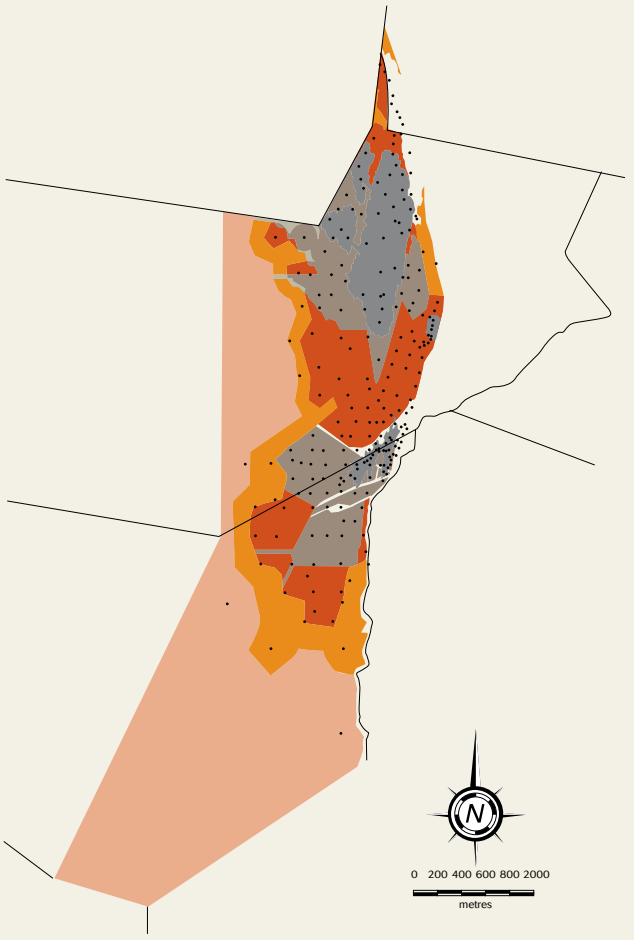
Townlands Extension 9



## Mineral Resource and Mineral Reserve maps

### Chrome – Bushveld Complex, Eastern Limb

Thorncliffe, Magareng, Helena and De Grooteboom mines




### Silica

Rietvlei mine




### Legend

Mineral Resources
- Inferred
- Indicated
- Measured

Mineral Reserves
- Probable
- Proved
- Exploration boreholes
- Mine workings
- Farm boundaries

# Social performance

## Our approach to our people in the Xstrata-Merafe Chrome Venture

- Our most important objective is to operate with no fatalities or injuries
- We aim to operate a safe and healthy workplace, based on mutual respect, fairness and integrity
- We believe that every work-related illness and injury is preventable
- We support initiatives that address major community health issues and enhance the wellbeing of our employees
- We value diversity in the workplace and support the aims of South Africa's revised Mining Charter
- We uphold the rights of our employees to freedom of association and we do not tolerate any form of discrimination
- We treat all employees and contractors fairly, providing equal opportunities at all levels of our organisation
- We follow local and international employment guidelines and employment legislation, including the South African Basic Conditions of Employment Act (1997) and the International Labour Organisation's guidelines

The Lion ferrochrome plant's fire and rescue team with their vehicle that is fully equipped to handle emergencies from fires to road accidents, and the plant's ambulance in the background



# Safety

### In honour of the members of our workforce who lost their lives in 2011

Tragically, the Venture had a sad start to the year with two fatalities in January. We extend our deepest sympathies for their tragic loss to the families, friends and colleagues of Mr Zweni Abraham Mkhize of the Wonderkop ferrochrome plant and Mr Chaka Aubrey Letsoalo of the Lydenburg ferrochrome plant.

### Challenges

- Eliminating fatalities and serious injuries
- Understanding the root causes of near misses and actual incidents and using the learning from this understanding to prevent fatalities and serious injuries
- Continuing to reduce the frequency of injuries, particularly in operations that have already achieved low injury frequency rates
- Addressing risk-tolerant or ingrained behaviours that impact negatively on safety in the operations
- Production interruptions as a result of Section 54 stoppages+

### Progress

While we were very disappointed that the Venture did not achieve its targeted reduction in fatalities, we did reduce our total recordable injury frequency rate (TRIFR), which is the Venture's key safety performance measure and which measures injuries per million hours worked, from 4.48 in 2010 to 3.90 this year, against our target for the year of 4.44. This measure includes employees' and contractors' lost time injuries, medical treatment injuries and restricted work injuries. It is a more complete measure of safety performance than lost time injuries alone.

### Xstrata-Merafe Chrome Venture safety statistics

| | Target 2011 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 |
|---|---|---|---|---|---|---|---|---|
| Fatality frequency rate (FFR) | 0.08 | 0.00 | 0.05 | 0.05 | 0.04 | 0.07 | 0.00 | 0.11 |
| Lost time injury frequency rate (LTIFR) | 1.25 | 0.88 | 0.93 | 1.34 | 1.03 | 1.83 | 2.31 | 3.90 |
| Total recordable injury frequency rate (TRIFR) | 3.90 | 4.44 | 4.58 | 4.64 | 5.36 | 6.91 | 8.39 | 11.99 |
| Disabling injury severity rate (DISR) | 94.57 | 65.11 | 84.38 | 123.48 | 72.97 | 126.03 | 137.92 | 245.38 |

### Safety stoppages

There were 18 Section 54 stoppages in the Venture's mines in 2011. Twelve took place in our mines in Mpumalanga province and six in the North West province.+

### The mining and processing environment

To mine and process the minerals the Venture extracts from the earth we need to work underground, up high or in confined spaces, using explosives and chemicals, operating high voltage equipment, heavy machinery and large mobile equipment such as front-end loaders, trucks, etc. These are all hazardous activities and we need to do everything in our power to make our operations as safe as possible.

### Our management approach to safety

The Venture maintains formal safety and risk management systems which are aligned to the international standards OHSAS 18001 and ISO 31000.

Safety is always the direct responsibility of the Venture's senior management. We recognise that our senior leaders are ultimately responsible for providing the leadership, systems and processes for the prevention of incidents and the elimination of fatalities. Our formal management structure documents responsibility for safety from board level down to each individual employee and contractor.

Health and safety agreements have been concluded between the trade unions and the Venture.

The Venture's Sustainable Development Policy sets out our commitment to zero injuries, occupational illnesses or fatalities. We value the safety of our contractors that we rely on to provide additional labour and for specialist skills and services, in the same way as we value our own employees. Contractors are included in our safety reporting and must comply in full with our safety standards and procedures.

The Venture's Executive Committee reviews performance and receives regular audit reports on safety performance.

### What we are doing to make our operations safer

After there were two fatalities in the Venture's smelting operations during January we held a safety summit. Shop stewards, safety representatives, sustainable development managers and general works managers attended the summit from all our smelting and mining operations. Each operation presented the fatalities that had occurred in their operation since 2002. The group then worked with two external safety consultants to identify any trends that were part of all the incidents.

They identified 12 different trends. After the summit each operation prepared an action plan that would allow them to address each of these 12 trends and these plans were shared among the participants in the summit. After these plans were actioned the results were fed back to the group and a large number of audits were carried out. These audits, undertaken by specialists in the field, audited a wide range of actitivities.

+ In terms of Section 54 of the Mine Health and Safety Act, No 29 of 1996, if an inspector of mines believes that any occurrence, practice or condition at a mine endangers or may endanger the health or safety of any person at the mine, the inspector may give any instruction necessary to protect the health or safety of persons at the mine including instructing that operations at the mine or a.part of the mine be halted

# Social performance (continued)

The auditors checked whether we were using the right equipment for the job and whether equipment was being used for the purpose for which it was originally intended; structural integrity was checked; as was hot materials handling. Corrective actions were identified by these audits.

A further safety summit was held at which our contractors presented the injuries and fatalities that had taken place in our smelters that involved contract workers and we went through the same process following this summit as we had with our first safety summit. Over the past six years approximately 60% of the fatalities on our operations have involved contract workers.

One of the issues that emerged from the safety summits was that the complexity of our contractor management, which involved a great deal of paperwork and administration systems, was taking the focus away from the physical management of contract workers. This also applied to the volume of documentation and paperwork in other areas. To resolve this we made streamlining our processes a major focus in the Venture this year.

The safety summit process also identified that we needed to change how we trained people. Previously people were trained on a written procedure. Now we are creating video material covering our procedures so the trainee can actually see how the procedure should be done in the workplace, while at the same time he has the written procedure as a reminder. The focus of our revised training programmes is on training to make sure the trainee knows and understands all the steps involved in a procedure.+

Our mines have better safety records than our smelters. For the past three years there have been no fatalities in our mines and our mines' total recordable injury frequency rate (TRIFR) is lower than that of our smelters.

In South Africa we face the challenge that we tend to be risk takers. An analysis of incidents by the Venture showed that while we could reduce the number of physical hazards to improve our safety performance, cultural and behavioural factors played a major role in poor safety performance. These include the fact that most South Africans live in a high-risk environment, which tends to reduce their response to the potentially harmful situations that can be found in a mining environment. The over-eagerness of our supervisors and operators to complete a job was another contributing factor.

Analysis undertaken in the Venture has also shown that most of the accidents in our operations involve people between the ages of 30 and 36. They were found to be distracted by the financial demands of their lifestyle and the important role smart phones and other technology, such as music playing devices, play in their lives. Communicating with this age group requires new approaches which we are exploring and the behavioural training programmes we use to train employees and contractors in safe behaviour have been designed to address cultural and behavioural issues.+

We have put considerable effort into embedding a safety culture in the Venture's operations. Our leaders know that it is their responsibility to demonstrate their commitment to safety. For example, they are expected to put safety before production or other considerations and they are expected to personally endorse safety initiatives and engage with employees at all levels to discuss safety issues and priorities.

### What happens where there is a fatality in the Venture

After a fatality in one of the Venture's operations a detailed presentation on the incident is made to the Venture's Executive Committee, the Venture's Sustainable Development Committee, the Joint Board and the relevant government authorities and the South African Police Service are notified.

Immediately after the fatality:

- the site's Emergency Preparedness and Response procedure is activated, which includes notifying the relevant government authorities and the South African Police Service (SAPS) and an incident notification being distributed to all our operations
- a full investigation using the incident cause analysis method (ICAM) is undertaken and information is collected using a people, environment, equipment, procedures, organisation (PEEPO) chart to find out how the fatality happened and what can be done to prevent it happening again
- the operation also investigates current practices and decides which should stay in place and which practices need to change as a result of lessons learned from the incident investigation
- the operation communicates with its employees and all our other operations regarding the incident. All operations across the Venture scrutinise the incident to determine similar scenarios where they might be exposed. They then implement preventative measures and report on these. The purpose of this communication is to pass on information that might prevent a similar incident happening on another operation
- when there is a fatality the operation concerned holds a memorial service on site for the deceased. Family and friends are invited to attend
- the virtual reality simulation of the incident, based on the ICAM investigation, is used throughout the Venture to train people doing similar jobs, by showing them how the fatality happened and what they can do to avoid a similar incident

For more information, see the Training and development section on page 79




To protect the local community and their livestock from accidentally drowning in a stormwater runoff dam at Lion ferrochrome plant, Limpopo province, the dam has been closed off with an electric fence and warning signs have been erected

- the simulation training also reinforces the training already in place
- follow-up audits check the implementation and effectiveness of measures to prevent a similar incident in any of the Venture's operations.

### Establishing a culture that encourages safe behaviour

Establishing a safety culture depends on the establishment of a just and fair culture – as opposed to a blame culture. This makes it easier for people to come forward and report incidents and errors, knowing they will be treated fairly. We also want to facilitate a culture in which employees and contractors feel they can challenge unsafe behaviour and where our people take personal responsibility for their own safety and that of their colleagues. As part of this process we assess accountability, responsibility and consequence in the context of each situation and to determine the underlying causes of incidents.

The sharing of knowledge plays an important part in making our operations safer. It is compulsory within the Venture to report high potential risk incidents (HPRI) and near misses. This allows us to implement improvements that could prevent future incidents. (A high potential risk incident is an incident that did not result in a fatality, but had the potential to do so.)

### Rewarding safety performance

The Venture's reward systems are structured to focus on key safety performance indicators. Our succession planning and promotion criteria include key safety elements. Safety performance can affect the variable remuneration of all employees, from executive management to mineworkers. (This is remuneration employees receive over and above their basic salary. It can be based on individual performance, the safety performance of the employee's business unit, the profitability of the business unit, etc.)

# Social performance (continued)

## Health and wellbeing

### Challenges

- The impact of HIV and AIDS on the workforce and the communities in which the Venture operates
- The link between tuberculosis (TB) and AIDS emphasised the need to significantly ramp up the Venture's TB programme to provide the highest quality of prevention and care for our employees and contractors
- A lack of public healthcare facilities and, in particular, access to HIV and AIDS prevention, treatment and care for communities in the areas in which we operate

### Progress

The only occupational disease cases identified in the Venture this year were noise-induced hearing loss (NIHL) cases. There was a 62% reduction in the number of cases year-on-year. However, as noted in last year's report the increased number in 2010 was the result of improvements to the medical examination process. The majority of the NIHL cases were diagnosed in people employed in our mines.

The Venture has included TB awareness and prevention, testing and treatment in the wellness programme available to employees and contractors at all our operations since 2010.

53% of the HIV-positive employees working for the Venture have registered with the treatment programmes available to them. This is an increase on 2010.

### Occupational illnesses

| | Target for 2011 | 2011 | 2010 | 2009 | 2008 | % change year-on-year |
|---|---|---|---|---|---|---|
| NIHL | 0 | 8 | 21* | 6 | 8 | 62 |

* *This increase was the result of improved medical examination processes which identified a number of cases not previously identified*

### Our management approach to health and wellbeing

A healthy workforce is an advantage to the Venture, as it means fewer sickness absences and employees who are fit to work at their full potential. Our health programmes address occupational illnesses, public health issues and overall wellbeing.

Many of the areas in which we operate lack adequate public health facilities for both our employees and the community. Wherever possible the Venture supplements the existing health facilities, usually through public private partnerships.

We aim to eliminate occupational illness by providing a workplace free from health and hygiene hazards and improving the wellbeing of our employees and contractors. We identify the main health issues affecting our workforce and the local communities. This allows us to address their specific health needs.

The Venture's policy sets out our commitment to eliminating illness from our operations by providing a workplace that is free from significant occupational health and hygiene hazards. It is important to the business that our employees are fit and healthy, which means taking care of their overall wellbeing and working with them to promote healthy lifestyles. The main health issues affecting the workforce and communities are identified at each operation. These include communicable diseases such as HIV and AIDS and TB and non-communicable diseases of lifestyle (diabetes, high cholesterol, obesity, etc).

### Occupational illness

Occupational illnesses like noise-induced hearing loss and musculoskeletal illness are typically diagnosed some time after the event or events that caused the illness. As a result, the occupational illnesses currently being identified in our operations are frequently the result of past management practices.

We conduct regular occupational health assessments during which we assess the chemical, biological, physical and ergonomic risks at our operations. These assessments help with the early identification of occupational illnesses, assist with the prevention of occupational illnesses and support the effective management of occupational health risks.

We work with our employees and contractors to address health issues. Our total workforce is represented in formal joint management-worker health and safety committees, which monitor and advise on occupational health and safety programmes.

Because the Venture has identified noise-induced hearing loss as a major occupational health risk for our employees, we have implemented hearing conservation programmes. It is compulsory for any of our workers who are exposed to the internationally accepted noise level limit of 85 decibels (A), or above, to wear hearing protection. This equipment includes variphones which are custom-made for comfort and are 100% leak tight. The Venture's employees are trained in the use and care of this equipment.

Our hearing conservation programmes include personal monitoring and regular testing of all employees and contractors who may be exposed to noise that could damage their hearing.

Wherever possible, we reduce the noise from equipment in our operations to levels below internationally recommended standards using design modifications, exclusion zones and "buy quiet" programmes for new or upgraded equipment. Our operations are committed to reducing machinery noise to less than 110 decibels by 2013.

## HIV and AIDS

### HIV and AIDS strategy

The Venture's HIV and AIDS strategy is based on the results of a cost benefit analysis which indicated that the cost of not addressing HIV and AIDS was likely to be between 3% and 6% of our annual wage bill. This was weighed against the information that early intervention – including the provision of antiretroviral (ARV) drugs – would benefit the business through the increased longevity of our employees, the continued productivity of HIV-positive employees and the slowing of the spread of HIV and AIDS.

### Policy and approach

HIV and AIDS is a human rights issue, which the Venture addresses through our HIV and AIDS-related policies and programmes. To ensure our policies are accessible to our employees and contractors they are available in all the languages spoken by our employees.

Employees can choose to receive HIV and AIDS counselling and care and support. Our HIV-positive employees receive the treatment they need free of charge together with the support and education that will make it possible for them to adhere to their ARV treatment programme.

A nurse consults with a patient in the Lion ferrochrome plant's clinic in Limpopo province



# Social performance (continued)

Our HIV and AIDS policies commit us to:

- providing employees and contractors with the knowledge they need to protect themselves and their families from HIV and AIDS through workplace education programmes that explain clearly how HIV can be contracted, what can be done to prevent contracting and transferring HIV, and what should be done to enhance the quality and length of life of those who are HIV-positive
- encouraging employees and contractors to know their HIV status and providing counselling and testing facilities for them
- running HIV and AIDS campaigns that will involve employees at every level of the organisation
- ensuring that every employee attends an HIV and AIDS education session during working hours, followed by an individual wellness counselling session with a healthcare provider
- ensuring that testing for HIV is voluntary and that employees are only tested for HIV and AIDS after giving their informed consent
- guaranteeing the confidentiality of employees' medical information
- providing pre- and post-test counselling for employees or contractors wishing to be tested for HIV and AIDS
- forming public private partnerships (PPP) with local, provincial and national government structures in joint projects to fight HIV and AIDS in the communities in which we operate
- facilitating the training of peer educators and establishing and training home-based care workers through our corporate social investment programme.

The total number of employees and contractors that have undergone testing for HIV since the inception of the programme in 2009 is 10 879, of which 8% tested positive. In 2011, the Venture's HIV-positive rate was 8%, which is 9.8% lower than South Africa's overall prevalence rate.

Our contractors are tested at no cost by Right to Care and referred to a public health facility for care and treatment.

In 2011 53% of the Venture's HIV-positive employees enrolled on the treatment programme provided by the Venture's medical aid and 75.9% of these employees are currently on antiretroviral treatment (ART).

## Community outreach

The Venture has formed public private partnerships (PPP) to ensure communities in the vicinity of our operations have access to prevention, treatment and care for HIV and AIDS, as well as other communicable and associated diseases. This approach includes building up a community profile using mapping, zoning, demographics, socio-economic data and stakeholder analysis.

Training in the workshop at the Steelpoort Development Centre, Steelpoort, Limpopo province



## Employees and employment practices

### Challenges

- Maximising local employment (which may be unskilled and have low levels of literacy) and training [+]
- Increasing the proportion of historically disadvantaged South Africans (HDSAs) in management
- Making careers in mining more accessible to women
- Engaging with our employees and the trade unions through open communication channels to achieve labour peace
- Providing a workplace that is free of discrimination
- Fluctuations in the demand for commodities, linked to the economic cycle, which cause periodic shortages and surpluses in the labour market
- Providing career development opportunities and retaining key personnel
- Identifying, developing and retaining high-potential employees
- Implementing effective training

### Progress

- 54.60% of the Venture's workforce (employees and fixed term contractors) are local people
- 100% of the new jobs created by the Venture were awarded to local people
- 13.26% of the Venture's permanent workforce was female in 2011
- 61.93% of the Venture's employees are covered by collective bargaining agreements
- 17.51% of management was female
- 71.49% of workforce are union members
- 61.93% of workforce participates in bargaining forum

We have achieved, and in certain instances exceeded, the requirements of the Mining Charter for employment equity in the workplace.

### The total workforce of the Xstrata-Merafe Chrome Venture by employment contract

| Category | 2011 | 2010 | 2009 | 2008 | % change year-on-year |
|---|---|---|---|---|---|
| Full-time employees* | 6 171 | 6 337 | 6 025 | 5 897 | (2.6) |
| Temporary/ fixed term employees | 273 | 212 | 316 | 394 | 28.8 |
| External contractors** | 6 511 | 4 166 | 3 231 | 3 897 | 56.0 |
| Total | 12 955 | 10 715 | 9 572 | 10 188 | 20.9 |

Annual averages used

* *Excludes fixed term and temporary employees*
** *The increase in the number of contractors employed is as a result of the projects under way*

[+] Local people are defined as people who were already residing in the same geographic region as the operation prior to being offered a position with the Venture

# Social performance (continued)

| Diversity and employment equity in the Xstrata-Merafe Chrome Venture, based on the Mining Charter targets | | |
|---|---|---|
| Diversity at senior management level in the Venture | | |
| Target for 2011: 25% | Achieved: 33.68% | Target for 2012: 30% |
| Diversity at middle management level in the Venture | | |
| Target for 2011: 35% | Achieved: 59.06% | Target for 2012: 40% |
| Diversity at junior management level in the Venture | | |
| Target for 2011: 40% | Achieved: 51.41% | Target for 2012: 40% |
| Diversity among employees with core skills level in the Venture | | |
| Target for 2011: 20% | Achieved: 77.49% | Target for 2012: 30% |

* *The term diversity used in this section of the report is based on the Mining Charter scorecard's definition of historically disadvantaged South Africans (HDSAs), which includes African males and females, coloured males and females, Indian males and females and white females*

** *Mining scorecard targets*

The diversity in the top management teams of Xstrata Alloys and Merafe, the partners responsible for the management of the Xstrata-Merafe Chrome Venture, is as follows:

- Diversity at top management level (board level) in Xstrata Alloys is 33%
- Diversity at top management level in Merafe (board level) is 75%.

Both companies have exceeded the Mining Charter diversity target for 2011, which was 25% and for 2012, which is 30%.

## Our management approach

Merafe and the Venture comply with the South African Basic Conditions of Employment Act No 75 of 1997 and the Labour Relations Act No 66 of 1995, which govern labour relations and conditions of employment in South Africa. The Venture is also committed to upholding the United Nations Universal Declaration of Human Rights and the International Labour Organisation's Declaration on Fundamental Principles and Rights at Work.

Merafe and the Venture are committed to providing a workplace based on mutual respect, fairness, integrity, non-discrimination and equal opportunity at all levels. Both are committed to open two-way engagement with our employees and their representatives.

The Sustainable Development Framework applied in the Venture includes the Business Principles which set out how the Venture conducts business; a Sustainable Development Policy which sets out the principles applied to the management of the Venture's people, their health and safety; and Sustainable Development Standards which provide detailed guidance on the requirements and expectations of the business towards sustainability issues. Sustainable Development Standard 3: Behaviour, Awareness and Competency, describes the Venture's aim to attract and retain the best people at every level of its business and to provide industry-leading career development opportunities and competitive remuneration.

## Recruitment and retention of employees

When hiring employees, the Venture gives preference to members of the local community and, in some cases, offers training opportunities to community members that will allow them to develop the skills they require to be employed by the Venture. While senior management vacancies are mostly filled through recruitment agencies with the candidates drawn from all over the country, around 55% of employees can be regarded as local or from local communities.

The mining and metals industry faces critical shortages across a range of disciplines. As a result, the Venture has identified its ability to retain and/or train people with the appropriate skills as a principal risk to its sustainability. The Venture is addressing this risk through its retention and recruitment policies and other interventions.

The artisan turnover rate in the industry is of particular concern. To reverse this trend, the Venture offers financial incentives and multi-skilling and career development opportunities.

In 2009, when the global recession resulted in a number of companies in the South African mining and metals industry retrenching staff, the Venture, despite operating at an average ferrochrome production capacity of only 30% during the first half of the year, did not retrench any permanent staff members. The Venture benefited from this decision when production levels increased in 2010.

In order to remain competitive in a year when the global economic crisis impacted negatively on ferrochrome prices and demand we initiated a cost cutting and streamlining process which has affected certain support functions and resulted in a reduction in headcount in some areas.

## Employee relations

Notice periods are specified in workplace agreements and the Venture consults with employees in advance of any significant operational changes. Consultation is always undertaken in an attempt to reach agreement with the union.

## Employee benefits

The benefits that Merafe and the Venture provide their full-time employees, over and above the legally mandated employment benefits, include retirement benefits in the form of provident funds and medical scheme benefits. We do not offer these additional benefits to our temporary or part-time employees.

## Employment equity and remuneration

Merafe and the Venture aim to operate workplaces based on mutual respect, fairness and integrity. All the Venture's operations publish employment equity plans and report annually on their progress towards achieving their targets. Management and the employment equity committees in place at each operation monitor employment equity at each operation in the Venture monthly.

Both Merafe and the Venture provide well-structured employment contracts and fair and competitive remuneration. This includes offering an equal rate of pay to male and female employees of equal experience. The employment equity policies of both Merafe and the Venture are based on providing all potential and existing employees with equal opportunities in terms of recruitment, promotion, transfer, employee benefits, training and conditions of service.

## Employee training and development

The shortage of skills in the mining industry has already been highlighted. Clearly the need to develop its workforce is material to Merafe and the Venture. Our approach to training and development is guided by our need to:

- provide development and training opportunities for HDSAs that will allow them to further their careers
- identify, develop, attract and retain high-potential employees
- maximise local employment
- make careers in mining more accessible to women
- increase the proportion of HDSAs in management
- provide effective training that addresses risk-tolerant or ingrained behaviours that impact negatively on our operations and training in human rights
- ensure employees, contractors and suppliers have a thorough understanding of the Statement of Business Principles, Sustainable Development Policy and 17 Sustainable Development Standards applied in the Venture and that all employees and contractors receive training in these.

Training in the Venture is structured to meet each operation's specific needs. Each operation has a workplace skills planning committee, which is responsible for identifying the operation's specific training requirements.

All employees have a job description and action plans, which are used to set career objectives and measure performance.

In 2011 approximately 36% of the Venture's workforce received performance and career development reviews.

During 2011, one of the 12 trends identified during the safety summit the Venture held with the ferrochrome plants was that employees were following our safety procedures to a certain point and then forgetting about the rest and on a number of occasions this had fatal consequences. Previously, our employees were trained using paper-based written procedures. We have created, and are still busy creating, 600 hours of video material and 200 new scenarios in our virtual reality training, on all our different procedures. Now, instead of having to read about how a procedure should be done our employees are trained using virtual reality training which shows them a video of exactly how to do something and assesses that they have thoroughly understood the safety procedure. The training is designed in such a way that an employee cannot complete training in a procedure until he/she has shown that they fully understand the procedure. Our employees are also provided with easy to read written procedures which they can use to remind them should they forget any steps in the procedure when they are applying it in the workplace.

We continually evaluate our training methods and the best way to communicate with the varying age groups and cultures in our organisation.

During 2011 the Venture reduced expenditure to contain costs. Its investment in skills development was reduced by 10% year-on-year. The average spend per employee/ contractor was R4 037.

# Social performance (continued)

## Training statistics

| | 2011 | 2010 | 2009 | 2008 | % change year-on-year |
|---|---|---|---|---|---|
| Total training hours | 668 050 | 422 639 | 253 358 | 188 020 | 58 |
| Average number of training hours for permanent employees during the year | 78 | 40 | 21 | 19.3 | 95 |
| Average number of training hours for contractors during the year | 32 | 41 | 35 | 19.2 | (22) |
| Total training hours for permanent employees | 463 956 | 239 949 | 135 797 | 112 877 | 93 |
| Total training hours for contractors | 204 094 | 169 151 | 119 561 | 75 143 | 21 |
| Number of health issue training sessions | 5 312 | 6 569 | 9 706 | 7 764 | (19) |
| Number of Safety training sessions | 36 574 | 23 915 | 24 736 | 11 285 | 53 |
| Number of Human rights issues training sessions | 2 184 | 6 336 | 5 947 | 4 255 | (65) |
| Number of Environmental training sessions | 4 635 | 5 603 | 8 334 | 7 456 | (17) |
| Number of non-workers, family, community members, trained in health issues | 14 | 120 | 16 | 0 | (88) |
| Number of non-workers, family community members trained in environmental issues | 14 | 105 | 14 | 0 | (86) |

To address the shortage of mining, engineering and related skills the Venture offers bursaries for full-time university and technikon studies in mining, electrical, metallurgical and mechanical engineering, surveying, geology, occupational hygiene, financial management, information technology, science and commercial accounting. It also offers graduate trainee positions work placements for students and financial assistance. The main focus of this assistance is on members of the communities in which the Venture operates.

## Women participation in mining

At Merafe this year 55% of our employees were women and 67% of these can be defined as working in mining or 36% of the total Merafe workforce. Women made up 13.26% of the Venture's workforce in 2011.

New employees and those returning from leave undergoing compulsory computer-based induction training at the Boshoek ferrochrome plant, North West province



## Leadership development

Members of the Venture's management team that have been identified as having leadership potential participate in the Venture's leadership programme. Participants are mentored by a member of senior management and given additional training, support and career development opportunities. They may also have the opportunity to be seconded overseas.

## The Venture's investment in skills development

| Type of development programme | 2011 Investment R | 2010 Investment R | 2009 Investment R |
|---|---|---|---|
| Learnerships (Level 2) (HDSA) | 220 785 | – | 130 000 |
| Learnerships (Level 2) (All) | 220 785 | – | 134 662 |
| % of investment in HDSA leaderships | 100 | – | 96.5 |
| Artisans and apprentices (Level 3 and 4) (HDSA) | 17 671 200 | 6 591 525 | 6 545 580 |
| Artisans and apprentices (Level 3 and 4) (All) | 18 596 550 | 15 107 614 | 13 082 141 |
| % of investment in HDSA artisans and apprentices | 95 | 44 | 50 |
| ABET training (HDSA) | 1 115 700 | 6 320 596 | 5 205 901 |
| ABET training (All) | 1 115 700 | 6 320 596 | 5 209 651 |
| % of investment in HDSA ABET training | 100 | 100 | 100 |
| Other training initiatives (HDSA) | 23 016 915 | 45 667 511 | 35 366 226 |
| Other training initiatives (All) | 27 212 673 | 51 141 848 | 40 727 409 |
| % of investment in HDSA Other training initiatives | 85 | 91 | 87 |
| Bursaries and scholarship (HDSA) | 3 041 426 | 2 712 446 | 1 959 044 |
| Bursaries and scholarship (All) | 4 058 702 | 4 468 922 | 3 271 374 |
| % of investment in HDSA bursaries and scholarship | 75 | 61 | 60 |
| Total HDSA | 45 066 026 | 61 292 078 | 49 251 751 |
| Total All | 51 204 410 | 77 038 980 | 62 425 237 |
| % of investment in HDSA skills development | 88 | 80 | 79 |

*HDSA = All costs for African males and females, Indian males and females, coloured males and females and white females – white males excluded*

*All = All costs for African males and females, Indian males and females, coloured males and females, white females and white males*

## ABET training – opening up opportunities for growth

Adult Basic Education and Training (ABET) forms part of our mines' social and labour plan (SLP) commitments. Set out below are the Venture's commitment and achievements in 2010 and 2011.

| | Western Mines | Eastern Mines |
|---|---|---|
| 2011<br>Number of full-time learners planned for 2011 in terms of SLPs | 48 | 16 |
| Number achieved | 48 | 16 |
| 2010<br>Number of full-time learners planned for 2010 in terms of SLPs | 60 | 60 |
| Number achieved | 48 | 50 |

## Portable skills

All the Venture's operations achieved the targets they had set for training employees in portable skills such as engineering, computer, electrical, driving, carpentry, bricklaying, welding and plumbing skills.

# Social performance (continued)

## Community

### Challenges

- Community engagement
- Increasing procurement from small and medium enterprises and black economically empowered (BEE) enterprises local to our operations
- Engaging with previously advantaged suppliers with a view to encouraging them to become black-empowered
- Enhancing the socio-economic capacity, prosperity and sustainability of the communities in which we operate
- Job creation and skills development.

### Progress

- 1 831 stakeholders attended 97 stakeholder meetings held at the Venture's operations during 2011
- Seven complaints were received at the Venture's operations regarding dust, fumes and water and these were attended to
- 51.2% of the Venture's discretionary procurement in 2011 was from black-empowered companies
- Significant progress made in the establishment of the world's first mining supplier park in Limpopo province+

Community and social issues are complex and challenging. To resolve these issues and legacy issues requires goodwill, commitment and leadership on the part of all stakeholders who include mining companies, communities, local government and the DMR. This is necessary to achieve a more sustainable environment for business and to ensure that communities can benefit from mining activities. The Venture is committed to engaging with all stakeholders to address these challenges.

### Policy and approach

The Venture engages with and supports communities affected by the Venture's operations. We recognise the rights of community members and respect their legal rights, customs and cultural heritage. Merafe, Xstrata and the Venture contribute to the social and economic development of the communities in which the Venture operates.

The Venture identifies our impacts on the communities in which we operate, both positive and negative, using social and human rights baseline studies and risk assessments. The Venture works closely with communities to maximise the positive impacts of our activities and to minimise or avoid any potential negative effects. We involve communities in developing solutions that will benefit both the community and our business. The community investment of both the Venture and Merafe is aimed at developing self-sufficiency over time in the communities in which we operate. Our investments are monitored and tracked to assess impact.

The main entrance to the mining supplier park at Steelpoort in Limpopo province, which will bring value to the provincial economy, encourage the establishment of black-empowered businesses and support the development of local small and medium enterprises




See page 85 for information on the expected impact of the supplier park on the Limpopo economy

All Venture operations will undertake community perception surveys in 2012 and every two years after that. The Venture conducted a survey of the impact of its operations on the communities in which it operates in 2010.

## Disputes relating to land use

The Venture is in discussions regarding land claims instituted by communities over the farms on which the Lion ferrochrome plant is situated and the farms where the Thorncliffe, Mototolo and Magareng mines are situated.

## Resettlements

No resettlements took place and the Venture does not operate sites where artisanal mining and small-scale mining take place, either on the site or adjacent to it.

## Socio-economic development

### Procurement

The Venture's procurement policies are aligned with the government's Preferential Procurement Policy Framework Act 2000 (PPPFA) and the Mining Charter Scorecard. It gives preference to HDSA-owned, empowered and controlled businesses for all capital goods, consumables and services. It also gives preference to local suppliers and small, medium and micro-enterprises (SMMEs).

### Procurement criteria

The procurement criteria applied by the Venture are the following:

- The sustainable development performance of the business must meet the standards set out by the Venture
- The capital goods and services provided must be competitively priced
- The quality of goods, consumables and services must comply with set standards
- Supply must be timeous
- After sales service must meet the Venture's standard operating practice.

Every year the Venture sets itself targets for our discretionary procurement from HDSAs, which exceed the targets set in the Mining Charter scorecard. We also aim to purchase as much from local suppliers as possible. This year we spent more than R6 billion on procurement from BEE enterprises. This amounts to 51.2% of our total discretionary procurement.

The Venture encourages its top previously-advantaged suppliers to become black-empowered and identifies services and the purchase of consumables that can be switched to HDSA companies. It also invests in the development of existing and new HDSA enterprises and ring-fences segments of tenders to facilitate their participation in the Venture's procurement.

## Discretionary procurement

Discretionary procurement spend with BEE companies broken down in accordance with Mining Charter scorecard requirements (as 2010 was the first year that data was collected in this format we are unable to provide data before then)

| Type of spend | Mining Charter targets for 2014 % | Mining Charter targets for 2011 % | Actual spend in 2011 % | % difference between actual and target in 2011 % | Mining Charter target for 2010 % | Actual spend in 2010 % |
|---|---|---|---|---|---|---|
| Capital goods | 40 | 10 | 52.07 | 42.07 | 5 | 3 |
| Services | 70 | 40 | 49.30 | 9.30 | 30 | 61 |
| Consumables | 50 | 15 | 52.54 | 37.54 | 10 | 36 |

The Venture attributes the considerable increase in BEE procurement of capital goods and services to a concerted effort on its part to purchase from BEE companies, combined with a major increase in black empowerment as companies transform to stay in business.

# Social performance (continued)

## The challenge of enterprise development

Supporting community members to establish small, medium and micro enterprises is an important part of Merafe and the Venture's approach to community development. The greatest challenge with enterprise development is to find ways and means to help micro and very small businesses move beyond the subsistence level to become profitable and self-sustaining. One approach that has worked for the Venture has been the ring-fencing (i.e. closing off a part of a tender) of portions of tenders for small enterprises, who then work with an established business that undertakes to mentor the small business. In some cases where the arrangement has worked well, the established business has offered the HDSA business the opportunity to purchase a shareholding and become its black empowerment partner.

The Venture supports enterprise development through the provision of loans with preferential terms, assistance with developing business plans and skills training and development. We also encourage other mining houses to use the services of businesses supported by our enterprise development programme.

During 2011 the Venture invested R11 398 000 in enterprise development.

## The Limpopo mining supplier park

Xstrata has invested in Phase I of a world first – a mining supplier park in Limpopo province.

Merafe and Xstrata are in discussions regarding Merafe's participation in this R35 million investment in Phase I, which will bring value to the provincial economy, encourage the establishment of black-empowered businesses and support the development of local small and medium enterprises. It is also closely aligned to the Venture's Business Principles and sustainable development framework.

### Scope of the project

Limpopo is a typical development area, importing goods and services and exporting product. Previously suppliers were reluctant to set up businesses in the province because of the cost of investing in infrastructure. This has meant that most mining supplies come from other provinces (mainly Gauteng) with little economic benefit to Limpopo.

By bringing suppliers closer to the mines in the province, the park reduces the need for mining companies to carry large inventories and ensures that the local economy receives a greater boost from the mining industry.

The park consists of 20 000 square metres under one roof in Phase I, which will provide tenants with all the facilities they require to set up business, such as security and access to shared services, including IT.

It is anticipated that by the end of 2012 the park will have created 1 000 jobs, based on the number of people that will be needed to manage the park and provide the shared services as well as the employment opportunities that will be offered by the 22 tenants of Phase 1.

Local community members employed on the construction of the mining supplier park in Limpopo province



### BEE commitment

Suppliers setting up business in the supplier park have to demonstrate a commitment to broadening opportunities for previously disadvantaged citizens in the industry by adopting one of these three BEE business models:

- The company establishes a branch by going into a BEE joint venture with a local black entrepreneur who must own between 25.1% and 50% of the JV
- The company sets up an agency in Limpopo which is 100% black-empowered
- The company establishes itself in the supplier park with a firm undertaking to contract with local BEE businesses to provide support services.

### Benefit to the community

Not only will the community benefit from the jobs on offer and the additional income into the province's coffers, but all the revenue generated by the park, from rentals and the sale of shared services, will be paid into a community trust established by the Venture. The trust will be used to fund community-based projects in the Limpopo province.

### Partnership for a sustainable outcome

Garnett-Adams, who have a proven track record in the establishment and management of supplier parks, have been contracted to establish and manage the park. They successfully implemented two similar supplier parks in the motor industry, one in Uitenhage in the Eastern Cape and one in Rosslyn in Gauteng.

In line with the principles of the park Garnett-Adams have set up a black-empowered branch of its company in Limpopo to provide these services.

Besides contributing the initial funding required for Phase 1, the Venture has worked with local government in developing the concept of a supplier park for the mining industry and has engaged mining companies in the area to participate in its establishment.

Construction of the park is well under way and the first tenants will be taking occupation in June this year.

## Investing in infrastructure development

Most of the Venture's operations are located in relatively undeveloped areas of a developing country. In order to improve living conditions for our employees and the communities in which we operate the Venture partners with government and local communities to, in some cases, repair the infrastructure and in others, to provide roads, running water, community centres and business parks.

One such project is the Sekhukhune multipurpose centre in Limpopo province. These centres bring key services such as pension payout points, satellite police stations, post offices, Home Affairs offices, ATMs, primary healthcare facilities and Department of Labour offices to these remote communities. They also accommodate skills training initiatives.

## Job creation and skills development

In addition to the employment the Venture's operations create, Xstrata and Merafe's investment in infrastructure development also creates jobs. While these jobs may only be temporary, those employed often learn portable skills such as bricklaying, welding and carpentry, that provide them with an opportunity to secure further employment.

The Venture also offers adult basic education and training (ABET) and computer literacy training and training in portable skills to community members at the Steelpoort Development Centre in Limpopo province. Community education projects run by the Centre include teacher training (in technology education), ABET facilitator training, science teacher training, engineering workshop training for further education and training (FET) lecturers.

## Social and labour plans (SLPs)

A key component of the new order mining rights in South Africa is the SLP. SLPs are developed in consultation with local communities and are approved by the Department of Mineral Resources (DMR). A report on progress against each SLP is submitted to the DMR annually. The Venture's three mines in the North West province each have an SLP in place. In the East one combined SLP is in place for all the mines. SLP commitments include human resource development commitments in the form of ABET training, learnerships, bursaries, internships and experiential training. In addition they invest in projects which include infrastructure development, enterprise development and education and health projects.

The Venture's SLP projects in progress in 2011 had a value of R6.6 million, a decrease of 57% on the value of its SLP projects in 2010, which had a value of R15 million.

### The Venture's social and labour plan learnerships

| | Target for 2011 | Actual | Target for 2010 | Actual |
|---|---|---|---|---|
| Western mines | 115 | 119 | 19 | 19 |
| Eastern mines | 72 | 74 | 20 | 23 |

# Social performance (continued)

## The impact of our SLP projects

### Infrastructure development projects

One of the Venture's infrastructure development projects is a multipurpose community centre (MPCC) established in a rural area at a cost of R7.5 million to house various critical government departments and additional facilities such as training, advisory services and an enterprise development information centre. The MPCC has brought critical government services to the community, which were not previously available to them.

In addition, the tribal offices of six communities were renovated, improving the facilities available to these communities.

A Limpopo community was provided with a portable water supply and a number of wet points which will help prevent the outbreak of cholera in the community as its members will no longer have to drink water drawn from a river.

An SMME business park has been built in Rustenburg to accommodate new emerging enterprises. Six units have been completed with four already occupied. The Rustenburg Food Bank will be operating from the business park. This business park has made it possible for small entrepreneurs to run and operate their businesses in affordable premises.

### Education projects

Two school projects near the Lion ferrochrome plant in Limpopo province include construction of a school hall which made it possible for the school to hold activities involving all the pupils. The rebuilding of a block of classrooms has reduced overcrowding among learners and provided safe, hygienic facilities that are more conducive to learning.

The first block of the Ba-Leema School was completed in 2011. This school, situated near Horizon Mine in the North West province, is being used by the three communities which surround the mine. The dilapidated classrooms had to be completely broken down and a new block built. Learners from the communities now benefit from a conducive environment created by the re-building of the school.

### Enterprise development projects

The Rustenburg Business Support Centre has been completed and is operational. It serves as an incubation centre for small emerging enterprises. All enterprise development initiatives identified by the Venture and some identified by the general public go through the Centre. They are mentored on business management skills as well as statutory compliance such as completion of SARS tax returns. etc.

Four enterprise development projects (a poultry farm, a craft and needlework centre, a welding centre and a jewellery-making centre) have created 33 jobs. A community economic centre has been constructed which provides small businesses with facilities in which they can establish business premises.

The Batho Pele Sewing Project in Rustenburg has created jobs for nine of the Ikemeleng communities. This project has signed up contracts with fourteen schools and also provides school uniforms to schools such as the Rustenburg and Grenville high schools.

Through an initiative of the Venture's Corporate Social Responsibility Department, a security company, Sizane Private Investigations, was given a ring-fenced opportunity to provide security for the Rustenburg Smelter. The company has since grown from employing nine security personnel to a business that employs 69 people.

The Signage Enterprise was developed and mentored with more than eight employment opportunities created. This project is housed in the SMME business park.

### Health projects

A home-based care project, which supports the work of the Departments of Health and Social Welfare, is aimed at addressing community healthcare problems and other social service issues such as domestic violence, registering grants, distribution of food parcels and the promotion of health programmes in the community.

The Tapologo Hospice is also supported financially for the provision of in-patient care for those patients that are terminally ill and those that cannot be accommodated in their houses. The centre supports patients who are suffering mainly from HIV and TB.

## The Venture's corporate social investment

| Type of investment | 2011 R'000 | 2010 R'000 | 2009 R'000 | % difference year-on-year |
|---|---|---|---|---|
| Community and social development | 2 200 | 19 330 | 7 379 | (89) |
| Culture/art | – | 1 028 | 10 | (100) |
| Education | 5 664 | 16 013 | 10 647 | (65) |
| Enterprise development and job creation | 11 398 | 18 204 | 9 910 | (37) |
| Environment | – | 50 | 100 | (100) |
| Health | 916 | 5 464 | 6 456 | (83) |
| Personnel time – in kind donations | 2 856 | 641 | 1 625 | 346 |
| Total | 23 834 | 60 730 | 36 127 | (62) |

The Venture's CSI expenditure in 2010 included a number of large projects. As a result, the expenditure in 2011 is less than that of 2010. In addition, CSI expenditure was reduced in line with the Venture's cost containment exercise.

## Merafe corporate office

### Merafe's corporate social investment (CSI) programme

Merafe's corporate social investment programme focuses on education, health and enterprise development.

Our CSI objectives are to:

- increase the company's involvement in the communities in which it operates
- empower and uplift disadvantaged communities in the areas in which we operate and in this way have a measurable impact on the socio-economic conditions of these communities
- build relationships with our stakeholders.

We identified skills shortages, low levels of education and healthcare issues (particularly in the area of HIV and AIDS) as the key areas needing to be addressed in these communities. As a result our programme focuses on these three primary areas. Our investment in education focuses on supporting secondary school projects aimed at providing maths, science and technology education for both educators and learners and study bursaries for engineering and commerce degrees. Our skills training investment is in teaching artisan skills, particularly electrical, mechanical and welding skills. Our investment in health focuses on HIV and AIDS projects.

Before we formed our CSI programme Merafe set up the Batlhako-Ba-Leema Education Trust in 2002, to provide bursaries for the tertiary education of children from the community. These bursaries funded tuition fees, accommodation, study material and, if required, a living allowance. Eighteen students were funded for studies as varied as chemical engineering, extractive metallurgy, law, the arts, commerce, social work and human resources. When the trust came to an end Merafe continued to fund students who still needed to complete their qualifications.

### Education

Initially we invested R3.8 million in the PROTEC maths, science and technology teacher training and learner development programme over a three-year period. This year we extended our investment in PROTEC by investing a further R2.5 million. PROTEC worked with both teachers and learners in maths, science and technology in 10 schools in villages around Rustenburg. Teachers attended training workshops and received in-class support to improve their skills and content knowledge of the science, maths and technology curricula. Saturday schools and a life skills and work experience programme is helping to improve 40 grade 10, 11 and 12 learners' science, maths and English results. It also encourages learners to follow science or technology-based careers. The project also supplies much needed science and technology equipment and maths kits as well as training and support in the use of the equipment. Implementation of the project began in 2010.

*Impact*

There was a significant improvement in the average marks achieved in most subject areas, with the:

- Maths average mark improving from 36% to 61%, a 30% improvement
- Science average mark improving from 58% to 68%, a 10% improvement
- English average mark improving from 55% to 66%, a 10% improvement
- Information Technology average mark improving from 50% to 60%.

PROTEC believes they can build on this result to achieve much greater success with these learners in the future.

Three training workshops were attended by on average 32 teachers who will reach approximately 1 760 learners.

## Health

Merafe and Xstrata joined forces to support the Tapologo 24-hour hospice facility in the Bojanala district with approximately R2 million. The hospice provides holistic care, support and treatment to patients infected or affected by HIV, AIDS and other chronic debilitating diseases. Tapologo also provides home-based care and a support service for orphans and vulnerable children. In addition it provides primary healthcare to those who do not have access to healthcare services.

## Enterprise development

Merafe and Xstrata are also supporting the expansion of a crop and hydroponic farm which is an initiative started by our Boshoek ferrochrome plant. The financial support of approximately R500 000 was used to expand the operation, employ more workers and arrange for skills development and skills transfer. This successful project produces a range of vegetables including cucumbers, cabbages, tomatoes, carrots and spinach.

# Environmental performance

### Challenges

- Climate change and energy management
- Resource management and, in particular, water and energy
- Biodiversity and landscape functions
- Waste, emissions, sulphur dioxide ($SO_2$) and particulate matter, and tailings management
- Closure planning and closed site management

### Progress

- 10% reduction in water use year-on-year+

### Management approach

The Venture is committed to minimising impacts throughout the life of our operations and to rehabilitating land once operations have ceased. Our priorities are to use resources such as energy and water efficiently, to minimise impacts on biodiversity and landscape functions and reduce waste and emissions, including greenhouse gases.

The impact that the Venture's operations have on the natural environment is managed in the context of Xstrata's Sustainable Development Policy and its 17 Sustainable Development Standards, which are detailed under the Sustainable Development section of the Merafe Resources website (www.meraferesources.co.za). Both the Policy and the Standards clearly articulate management and performance expectations regarding the environment, biodiversity and landscape management, life cycle management of products and operations, incident management and product stewardship.

The sustainable development and risk management frameworks applied in our operations have been designed to provide assurance to the boards of both Venture partners that the performance and systems in place at our operations are consistent with expectations and a number of international standards, including ISO 14001 and the International Council of Minerals and Mining (ICMM) principles. The Venture's sustainable development assurance programme requires independent site audits every three years. These audits, which are undertaken by specialists, include assessments of both environmental systems and risks. The findings from these audits are used by each site when they prepare their annual sustainable development improvement plans. These plans are tracked and reviewed by the business unit's executive team. Site specific environmental compliance and system audits are used to identify opportunities to improve environmental management at the site.

Our employees are trained in risk management and environmental awareness.

### Environmental risks and opportunities

The Venture maintains an Aspects and Impacts register that identifies key environmental risks and details the programme and controls used to manage these. Detailed action plans are prepared to address areas of under-performance and to improve environmental management and performance. Audits of these plans determine the success of their implementation and verify their effectiveness.

### Managing resources and emissions

We are finding and researching ways to further reduce our energy use per tonne of product and are exploring solutions to capture carbon dioxide ($CO_2$) emissions and converting it into a usable energy source.

The Venture's GHG emissions result from:

#### Scope 1 emissions (direct)

- $CO_2$ emissions from the use of reductants such as anthracite and carbon in the ferrochrome smelting process
- fuel such as diesel and oil used on-site

#### Scope 2 emissions (indirect)

- purchased electricity used to run its operations, generated mostly from burning fossil fuels

#### Scope 3 emissions (from sources not owned or controlled by the Venture)

- transport of materials and consumables to our operations
- waste sent to off-site landfill
- emissions from business travel

## Greenhouse gas emissions (GHGs)

### $CO_2$ equivalents ($CO_2$-e) tonnes

| | 2011 $tCO_2$-e | 2010 $tCO_2$-e | 2009 $tCO_2$-e | 2008 $tCO_2$-e |
|---|---|---|---|---|
| Scope 1<br>Direct greenhouse gas emissions generated from the use of reductants such as anthracite, coke and coal in the ferrochrome smelting process and fuel such as diesel and oil used on-site at the Venture's mines and ferrochrome plants | 2 598 577 | 3 023 272 | 2 210 942 | 3 081 763 |
| Scope 2<br>Indirect emissions of $CO_2$ from electricity purchased by the Venture | 4 782 263 | 5 290 670 | 3 622 260* | 5 110 633 |
| Total $CO_2$-e generated from Scope 1 and 2 GHGs | 7 380 840 | 8 313 941 | 5 833 202 | 8 192 396 |
| $CO_2$-e generated per tonne of ferrochrome produced | 5.77 | 5.68 | 5.92 | 5.76 |

* *Electricity purchased by the Venture accounted for 62% of the total $CO_2$-e Mt in 2010 and in 2011 it accounted for 64% of our total $CO_2$-e Mt. Please note that the 2009 data was amended during the year after audits were performed on the sites. The significant increase in emissions during 2010 is due to the start-up of furnaces which were off during 2009*

### Energy use

| | 2011 (GJ) | 2010 (GJ) | 2009 (GJ) | 2008 (GJ) | % change year-on-year |
|---|---|---|---|---|---|
| Direct energy use | 1 323 335 | 1 485 126 | 993 099 | 2 508 883 | (10.8) |
| Indirect energy use (electricity) | 17 216 866 | 19 044 327 | 13 040 136 | 18 981 021 | (9.5) |
| Total energy use | 18 540 201 | 20 529 453 | 14 033 235* | 21 484 904 | (9.6) |

* *The 9.6% reduction in electricity consumption in 2011 and the 31% reduction in electricity consumption in 2009 needs to be viewed in terms of the 12.3% reduction in production in 2011 and the 30% reduction in production in 2009 due to market constraints*

During 2011 $CO_2$-e generated per tonne of ferrochrome from the Venture's mines and smelters increased by 1.5% and energy use per tonne of ferrochrome produced increased by 3.2%. Energy efficiency in the Venture's plants is reduced during periods of lower production.

Indirect emissions of $CO_2$ from electricity purchased by the Venture accounted for 65% of the total of 7 387 668 $tCO_2$-e, down from the 2010 figure of 8 316 047 $tCO_2$-e.

We endeavour to reduce our emissions to air from our smelters, to a point where they do not significantly affect air quality. Nitrous oxides ($NO_x$), sulphur oxides ($SO_x$) and particulate matter are the Venture's major emissions to air.

The Venture manages and funds the development of an air monitoring network in the Rustenburg area of the North West province. The network integrates data from numerous stations. It assists the local municipality with air quality reporting, which is part of the municipality's public health reporting obligations, and provides information to local industry for use in air quality impact assessments for new emissions licences and environmental impact assessments for planned future expansions.

Our partner, Xstrata, is a member of the North West Province Air Pollution Control Forum (NAPCOF) and the Ferro Alloys Producers' Association (FAPA). These bodies discuss air quality issues and partner with the regulators to set best practice air quality standards. They also set up task teams to address specific air quality issues and provide feedback and advice to regulators.

The steps taken by the Venture to reduce emissions include:

- fitting high-efficiency membrane filter bags and improving the design of cyclone systems at semi-closed furnaces
- wet scrubbers used on closed furnaces
- installing standby induced draft fans on bag filter plant units
- using cannon water sprayers to reduce windblown dust
- dedicated road sweeping units to clean fine dust particles from the roads
- fogger systems on conveyor belts and at loading bins to reduce dust.

# Environmental performance (continued)

## Climate change and energy

Climate change remains an important longer-term risk for the Venture. The potential risks we face from climate change are both physical and financial. These risks are complex as they include operational risks such as business continuity, health and safety, environmental aspects and regulatory aspects. We need to constantly engage with legislators, researchers and industry bodies and track and evaluate the situation and develop an improved awareness of and preparedness for the risks associated with climate change. We are working with members of our industry, as well as other stakeholders, to understand the potential impacts of climate change and take action to minimise them in areas likely to be most affected and where we can have the most effect.

## Possible physical and financial impacts

Physically, climate change could materially affect our operations through damage and/or business interruption caused by flooding, extreme storms, reduced availability of water and possible health impacts.

Some of our operations are located in arid areas where prolonged drought conditions could limit production growth or prevent us from operating.

One of the financial risks associated with greenhouse gas (GHG) emissions is the introduction of a carbon tax in South Africa, which could result in increased electricity and transportation costs, as well as higher operational costs related to GHG emission monitoring, reporting and accounting. Higher energy costs could negatively affect our ability to contain operating costs and maintain production.

If climate change policies lead to a reduction in the use of coal as a source of energy around the globe, this could have a negative financial impact on our coal business.

## Understanding our carbon footprint

Our understanding of our carbon footprint and the opportunities for greater energy efficiency continues to improve. Our implementation of site and process carbon and energy intensity targets are important building blocks that will allow us to measure our performance more accurately and identify areas for improvement.

Our operations give rise to significant greenhouse gas (GHG) emissions, both directly and indirectly. They are also exposed to the potential impacts of climate change resulting from GHG emissions.

We create GHG emissions from our smelting processes and from our energy use. The use of diesel in our vehicles contributes directly to the creation of GHGs and the electricity supplied to us from coal-fired power stations contributes indirectly to the creation of GHGs.

The transporting of our product from our sites to our customers also contributes to our carbon footprint in the form of scope 3 emissions.

We are committed to minimising GHG emissions and improving energy efficiency. We recognise the magnitude and importance of this challenge.

## Emissions

| Category | 2011 Tonnes | 2010 Tonnes | 2009 Tonnes | 2008 Tonnes | % change |
|---|---|---|---|---|---|
| $NO_x$ (Oxides of nitrogen) – stack emissions – total mass | 159 | 184 | 141 | 238 | (14) |
| $SO_x$ (Oxides of sulphur) – stack emissions – total mass | 2 365 | 3 574 | 1 685 | 1 266 | (34) |
| Total particulates – stack emissions – total mass | 2 166 | 1 432 | 923 | 4 427 | 51 |

* *The total particulates for 2011 are 51% higher than those for 2010. This is mainly as a result of lower air pollution control equipment efficiencies resulting from the switching off and starting up of furnaces.*

The drop in the $NO_x$ and $SO_x$ emissions is as a result of lower production during 2011.

## Water use

### Redefining water use

The Venture aims to use water as efficiently as possible and to avoid any negative impacts on water quality in the environments in which we operate. Our water use includes water employed in our primary activities, which are mining and smelting, and in our non-primary activities such as dust control and garden maintenance. The potable water used in our operations is mainly sourced from a variety of water service providers, including local municipalities. In some instances our operations produce their own potable water, which reduces their reliance on water service providers.

Previously, all water used in dust suppression and plant usage from dirty water onsite was considered recycled, as this water was captured onsite and reused in the activities onsite. We have revised how we define recycled and dirty water from onsite dewatering activities. Essentially, all rainwater that falls on "dirty areas" is captured and stored for onsite activities such as dust suppression. As a result it is not possible to accurately compare the 2010 water usage with 2009 data.

Water usage measurement is an evolving area. We continue to refine how we measure our water usage and our collection processes in order to meet our evolving management and reporting needs.

## Water use and availability

Our operations work with the Department of Water Affairs, local communities, local authorities, the farming community and other industry users to ensure the sustainability of water resources and equitable access to water resources for all stakeholders.

The availability of water is a key consideration when we plan the expansion or construction of an operation. We use the results of the environmental impact assessments (EIAs) we undertake to guide our decision making and to ensure we have the least possible impact on local water resources during the various phases of projects.

Our sites in water scarce areas implement water conservation plans, set water intensity targets and have measures in place to help them be as water efficient as possible.

Water usage is affected not only by the Venture's efforts to reduce water consumption, but also by its production levels in a particular year.

There are no water bodies or related habitats significantly affected by the discharge of water and runoff by the Venture's operations. The only water sources sensitive to withdrawal are the Dwars River and the licensed boreholes at the Lion ferrochrome plant.

### The Venture's water usage

| | 2011(Ml) | 2010(Ml) | 2009(Ml) | % difference |
|---|---|---|---|---|
| Raw groundwater consumed | 1 024 | 974 | 1 714 | 5 |
| Raw surface water consumed | 774 | 590 | 505 | 31 |
| Potable water consumed | 2 652 | 3 012 | 2 091 | (12) |
| Recycled water purchased | 318 | 0 | 0 | |
| Dirty water from onsite dewatering activities consumed | 3.71 | 0 | 0 | |
| Total water imported | 93 | 107 | 58 | (14) |
| Total wastewater discharged to water bodies* | 14.19 | | | |
| Water recycled or reused | 6 614 | 7 570 | 7 216 | (12) |
| **Total water consumption** | 11 495 | 12 818 | 11 750 | (10) |

No water sources were significantly affected by the withdrawal of water.

* *Wastewater discharged to water bodies was not measured previously.*

In 2010 improved water management contributed to a 14% decrease in the Venture's total water usage and this continued in 2011 with a 10% reduction in total water usage. The Venture's water consumption reduction target was a 5% reduction of fresh water intensity (per tonne of material produced) on 2007 performance by 2010. As a result of lower production levels, the Venture's water intensity increased by 4% in 2011.

# Environmental performance (continued)

## Effluents and waste

All of the Venture's operations are zero-effluent discharge operations. In terms of our licence conditions and requirements, effluent may only be discharged in an emergency and in consultation with the relevant authorities.

Mining and metallurgical operations produce hazardous and non-hazardous wastes which, unless properly disposed of, can be a threat to the environment. The costs of waste disposal can be high.

All our operations have a waste management plan in place to reduce, reuse, recycle or responsibly dispose of the waste they generate. This minimises the amount of waste sent to landfill and cuts costs. Our mines and smelters produce distinct wastes that need to be dealt with in a specific manner.

## Waste

Accredited service providers dispose of the waste we are unable to recycle and do so in a responsible manner. Materials currently recycled include scrap metal, paper, wood and conveyor belts.

The wastes we produce include waste rock removed to expose ores or coal. This waste can be placed in disused opencast or underground operations, reused during site rehabilitation or stockpiled. Tailings and slag from processing ore and concentrates, as well as coal mine tailings (fines) suspended in water, are recycled or reused whenever possible.

To reduce the amount of waste sent to landfill the Venture recycles and reuses whatever possible. It uses accredited service providers to dispose of its remaining waste in a responsible manner. The Venture currently recycles scrap metal, paper, wood, conveyor belts and materials captured in air pollution control equipment.

In order to have our slag listed as a waste with a beneficial use, the Venture has undertaken all the necessary test work including the eco toxicology and aging analyses with FAPA. All our test work shows that the slag is not a hazardous substance and is suitable for use as building aggregate, brickmaking, road filling, backfilling, road making and for numerous other purposes. The necessary documentation has now been submitted to the government and we are hopeful that the Minister will approve its beneficial use application once the relevant regulations are promulgated in 2012.

The Venture does not transport, import, export or treat waste deemed hazardous under the Basel Convention Annexures I,II,III and VIII.

| Category | 2011 (tonnes) | 2010 (tonnes) | % change |
|---|---|---|---|
| Mineral waste – recycled | 1 373 169 | 1 804 931 | (92.7) |
| Mineral waste – onsite | 1 667 514 | 2 003 959 | (16.8) |
| Mineral waste – offsite | 246 800 | 197 830 | 24.7 |
| Mineral waste – produced | 699 197 | 428 309 | 63.2 |
| Non-mineral waste – recycled | 9 915 | 17 254 | (42.5) |
| Non-mineral waste – onsite | 3 418 | 495 | 590.5 |
| Non-mineral waste – offsite | 8 248 | 5 251 | (57.2) |
| Non-mineral waste – produced | 559 626 | 278 | 100.8 |

The changes in the quantities of waste are mainly as a result of the decrease in production this year.

## Environmental incidents

Environmental incidents recorded at the Venture's operations include incidents that occur under the control of contractor activities.

| Incident category | 2011 | 2010 | 2009 | 2008 | 2007 |
|---|---|---|---|---|---|
| Category 1 – negligible (causing negligible, reversible environmental impact, requiring very minor or no remediation) | 76 | 62 | 47 | 32 | 40 |
| Category 2 – minor (causing minor, reversible environmental impact, requiring minor remediation) | 7 | 24 | 22 | 10 | 4 |
| Category 3 – significant (causing moderate, reversible environmental impact with short-term effect, requiring moderate remediation) | 0 | 0 | 0 | 1* | 0 |
| Category 4 – major (causing serious environmental impact, with medium-term effect, requiring significant remediation) | 0 | 0 | 0 | 0 | 0 |
| Category 5 – disastrous (causing disastrous environmental impact, with long-term effect, requiring major remediation) | 0 | 0 | 0 | 0 | 0 |

** Stormwater discharges offsite caused by dam overflows as a result of severe storms and heavy rainfall*

## Biodiversity and landscape functions

The Venture partners own 2 288ha and lease 1 951ha of land in the North West, Limpopo and Mpumalanga provinces of South Africa. In 2011, 1 350ha of land was disturbed and 362ha of disturbed land was rehabilitated.

The Venture is committed to rehabilitating and restoring landscapes once its mining, smelting and exploration activities have ceased.

All operations have biodiversity management plans in place. Some of the areas mined by the Venture are located in or adjacent to biodiversity-rich areas.

Before beginning to operate in a new area or making changes to existing operations, the Venture conducts a baseline survey to identify and record the existing biodiversity of a site and to determine whether any threatened species (including species listed on the IUCN Red List) or vulnerable ecosystems are present. The biodiversity of a site is monitored throughout the life cycle of an operation and the Venture works with external stakeholders, including local and national government, local communities and conservation NGOs, to develop and implement biodiversity conservation programmes in the areas in which the Venture operates.

A number of sensitive species were identified during a biodiversity and land management assessment of Waterval, Horizon and Kroondal mines in the Rustenburg area of the North West province. The plan arising out of this assessment has been included in the Venture's Environment Management Programme Report (EMPR). Invasive species identified during the assessment have all been removed.

Dust being measured at the Boshoek ferrochrome plant, North West province



# Environmental performance (continued)

The Thorncliffe and Helena mines in Mpumalanga province have endemic Red List species within or adjacent to their lease areas. A biodiversity action plan is in place for these mines, which involved establishing core biodiversity management areas and implementing an integrated alien plant control programme at the mines.

Although it is not located in a biodiversity protected area, a biodiversity and land management programme has been implemented for the Boshoek smelter.

At the Lion ferrochrome plant a project plan is to be implemented to improve the concentration of these Red List species within and outside the site area. A technical survey through an appointed consultant has been completed and work to implement recommendations is expected to begin this summer.

The sustainable development team at the Lion ferrochrome plant records the details of an indigenous plant being relocated to make way for a new development at the plant in Limpopo province



## Operations in or adjacent to areas of high biodiversity value

| Operation | Ecological sensitivity |
|---|---|
| Horizon Mine (Pilanesberg) | Protected species or species of concern include: the plants belonging to the genera *Gladiolus, Scadoxus, Sclerocarya* and *Euphorbia spp*. Data deficient: the mammal *Lemniscomys rosalia* (single-striped mouse) |
| Kroondal Mine (Rustenburg) | Adjacent to wetlands area (although not a protected area or listed in RAMSAR convention on wetlands of international importance). A number of protected orchid species occur in the natural areas of the mine, species of *Ceopegi* and the mammal *Lemniscomys rosalia* |
| Thorncliffe Mine and Helena Mine and Mototolo (Mpumalanga) | Endemic IUCN Red List species within or adjacent to the lease areas include: Short stem carnation weed; Sekhukhune (Bushman's tea); Blue Shield Fruit; Red Ivory (*Rooi Ivoor*); Sekhukhune elephant-root (*sekuhunebasboontjie*).<br>Also found is the *Cicada Pycna Sylvia* – rare but not on IUCN Red List due to insufficient data |
| Lion Ferrochrome (Steelpoort) | Boscia species A (*Balbitrunca var macrophylla*); *Elephantorrhiza praetermissa; Lydenburgia cassinoides; Rhus sekhukhuniensis*; Short stem carnation weed; Blue Shield Fruit; Red Ivory; *Cicada Pycna Sylvia* (insufficient data for Red List) |

### Management of overburden, rock, tailing and sludges/residues

The Sustainable Development Standards and guidelines that apply to the Venture's operations set stringent requirements for the management of tailings and waste rock facilities. These include having processes in place at all operations to manage tailings disposal facilities to ensure: that their designs comply with international standards; that there are regular external inspections and audits of tailings dams, including physical stability control risk assessments and monitoring; leaching control, groundwater monitoring and effluent treatment (e.g. seepage collection systems); progressive rehabilitation or reclamation; and planning that includes worst case scenario weather and geological conditions.

The Venture did not incur any environmental fines or fines for non-compliance with any laws or regulations concerning the provision and use of its products during the year.

### Planning for rehabilitation and restoration

Closure plans, which include a full assessment of all significant environmental risks, are in place at all operations. Based on the ICMM's closure planning guidance, these plans are reviewed annually and checks are made to ensure that closure and rehabilitation costs are still accurate and that environmental, social and legal circumstances have not changed. At the same time any new potential commercial opportunities for reuse of the site are identified. It is the Venture's aim to rehabilitate sites to a standard that will allow them to be used for residential or agricultural purposes after mining or to be returned to a condition similar to their natural state before operations began.

Every year we estimate the cost of rehabilitating the Venture's sites at closure over the lifetime of the operation and make provisions as prescribed by law.

### Emergency preparedness

There were no incidents affecting employees, communities, or the environment in which emergency preparedness procedures were activated.



The sustainable development team at the Lion ferrochrome plant in Limpopo province inspect a lining laid in preparation for the construction of a tailings dam. The lining prevents any leakage from the tailings dam

The Venture's operations are zero-effluent discharge operations. In terms of our licence conditions and requirements effluent may only be discharged in an emergency in consultation with the relevant authorities. Environmental incidents recorded at our operations include incidents that occur as the result of contractor activity.



The wastes we produce include waste rock, tailings and slag, materials captured in air pollution control equipment and batteries. The materials we currently recycle include scrap metal, paper, wood and conveyor belts. Accredited service providers dispose of the waste we are unable to recycle in a responsible manner.

# Future outlook and sustainability

## A positive view

Despite the challenges of the South African mining environment and the ferrochrome industry in particular, we remain optimistic about the future of our business.

Going forward, Merafe has the advantage of a strong balance sheet, low gearing and a healthy cashflow and of partnering with Xstrata, one of the world's largest diversified mining companies with a reputation for running responsible and efficient operations,

The Xstrata-Merafe Chrome Venture has the advantage of being one of the lowest-cost most energy-efficient producers of ferrochrome and the world's leading producer of ferrochrome. Our significant investment in improving the Venture's energy efficiency gives us a competitive advantage and contributes to its future sustainability.

## Sustainability

In 2011 Merafe was recognised as a Best Performer on the JSE Socially Responsible Investment (SRI) Index for the fifth consecutive year and our partner, Xstrata, was the Mining Sector Leader in the annual Dow Jones Sustainability Index review for 2011/12.

Merafe's empowerment credentials, which already exceed the requirements of the Mining Charter for 2014, support the company's future sustainability.

The Venture is also well-positioned in terms of the remaining targets of the Mining Charter, many of which it already exceeds.The Venture's sustainability is assured in terms of its access to Reserves (see the Mineral Resources and Reserves section on pages 60 to 69) and its access to UG2 ore.

It is encouraging to note that the Venture's development of the Lion II ferrochrome plant has been named as a value-adding project by the South African government.

In addition, the South African government has also provided clarification on its approach to the mining industry and has made it clear that nationalisation is no longer on its agenda. The government has also named chrome ore as one of the 10 minerals that need to be beneficiated within South Africa. As a result we are optimistic that this will lead to some type of duty being imposed on the export of chrome, which would limit the exporting of chrome ore to China and any further development of its ferrochrome industry.

## Crude stainless steel production

| | 2009 '000t | 2010 '000t | 2011 '000t | Change 11/10 in % | 2012 '000t (F) | Change 12/11 in % |
|---|---|---|---|---|---|---|
| NAFTA | 1 618 | 2 201 | 2 074 | (5.8) | 2 185 | 5.4 |
| EU | 5 980 | 7 497 | 7 579 | 1.1 | 7 685 | 1.4 |
| Japan | 2 607 | 3 427 | 3 338 | (2.6) | 3 433 | 2.8 |
| S. Korea/Taiwan/India | 4 811 | 5 774 | 5 555 | (3.8) | 6 061 | 9.1 |
| Others | 1 222 | 1 143 | 1 143 | 0.0 | 1 189 | 4.1 |
| Subtotal | 16 238 | 20 042 | 19 688 | (1.8) | 20 552 | 4.4 |
| China | 9 751 | 12 350 | 14 240 | 15.3 | 15 452 | 8.5 |
| Total | 25 989 | 32 392 | 33 928 | 4.7 | 36 004 | 6.1 |

## Regional ferrochrome demand

| | 2009 '000t | 2010 '000t | 2011 '000t | Change 11/10 in % | 2012 '000t (F) | Change 12/11 in % |
|---|---|---|---|---|---|---|
| NAFTA | 229 | 481 | 473 | (1.7) | 475 | 0.5 |
| EU | 1 234 | 1 661 | 1 667 | 0.4 | 1 625 | (2.6) |
| Japan | 459 | 722 | 725 | 0.4 | 776 | 7.0 |
| S. Korea/Taiwan/India | 1 124 | 1 476 | 1 355 | (8.2) | 1 478 | 9.1 |
| Others | 622 | 726 | 789 | 8.7 | 731 | (7.4) |
| Subtotal | 3 667 | 5 066 | 5 009 | (1.1) | 5 084 | 1.5 |
| China | 3 660 | 4 018 | 4 298 | 7.0 | 4 800 | 11.7 |
| Total | 7 327 | 9 084 | 9 307 | 2.5 | 9 884 | 6.2 |
| Charge Cr | 3 287 | 3 913 | 3 969 | 1.4 | 4 139 | 4.3 |
| HC FeCr | 4 040 | 5 170 | 5 338 | 3.2 | 5 745 | 7.6 |

*Source: Heinz H. Pariser*

For more information, refer to the CEO's Review of performance against strategy and the Operational performance sections of this report.

## Market outlook

We expect positive underlying fundamentals to support stainless steel demand and for the global market to grow at a higher rate than in 2011. Increased demand for stainless steel will lead to higher stainless steel melt production and, as a result, increased demand for ferrochrome units and improved ferrochrome pricing.

## Growth

The Venture's organic growth will be achieved through the development projects currently under way. These include Phase II of the Lion ferrochrome plant which will increase our smelting capacity to 2.3 mtpa by 2013, the expansion of the Horizon Mine to produce 480 000 tpa and the development of the Magareng Mine (1.2 mtpa) and the building of the Tswelopele pelletising and sintering plant.

It is imperative that the Venture remains a low-cost producer, because increases in global electricity and mining costs and the strengthening of the freight market will result in margins remaining under pressure. Improving our energy efficiency is the key to containing our costs. While we have already achieved major energy efficiencies in our operations, the addition of the Tswelopele pelletising and sintering plant and the Lion II ferrochrome plant (our most energy-efficient plant) will further improve our energy efficiency. Our position as low-cost producers means we are well-positioned to take advantage of any upturn in ferrochrome demand.+

We recognise the importance of diversifying and reducing our reliance on one commodity and our investigation of opportunities for diversification will be a major focus for our management team during the next few years.

## FeCr producer ranking 2010

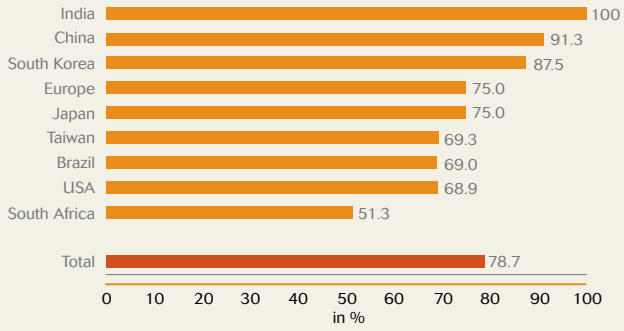
| 2010 Charge/HC FeCr production | '000t | Material weight | % share |
|---|---|---|---|
| Xstrata-Merafe Cr Venture | 1 456 | | Top 5: 52.5 |
| ENRC[1] | 1 270 | | |
| Sinosteel Group[2] | 869 | | |
| Samancor Cr | 711 | | |
| Hernic Ferrochrome | 360 | | |
| Outokumpu Cr Oy | 246 | | 5 – 10: 12.9 |
| EHUI Metallurgy | 240 | | |
| Assmang | 239 | | |
| Tianyi Metallurgy Group | 215 | | |
| IFML | 207 | | |
| Subtotal | 5 812 | | Top 10: 65.4 |
| Others | 3 076 | | 34.6 |
| **Global 2010 Output** | **8 889** | | |

1) *Kazchrome, Serov, Tuoli*

2) *Asa Metals, Tubatse Chrome (50%), Zima sco, Jilin Ferroalloys*

*Source: Heinz H. Pariser*

Stainless steel capacity utilisation, Q4 (p) 2011




*Source: Heinz H. Pariser*

## Growth pipeline

**2012**

- Commissioning of Tswelopele pelletiser to produce 600 000 tpa
- Prospecting right granted on St George and Richmond farms, Mpumalanga province

**2013**

- Commissioning of 360 000 tpa Lion Phase II increases ferrochrome production capacity to 2 339 000 tpa
- Magareng Mine ramp up to 1.2 mtpa

**2014**

- Completion of Horizon Mine development to 480 000 tpa



The metal extraction plant at Boshoek ferrochrome plant North West province (slag is processed through this plant to extract valuable pieces of ferrochrome trapped in the slag)

The Venture recognises that by their very nature, mining activities have an impact on the natural environment. We are committed to minimising our impacts throughout the life of our operations and rehabilitating land once our operations have ceased. We focus on identifying and using opportunities to help protect and improve the environment in which we operate.



Climate change remains an important longer-term risk for our business. The potential risks we face from climate change are both physical and financial. They are also complex as they include operational risks such as business continuity, health and safety, environmental aspects and regulatory aspects. The Venture engages with legislators, researchers and industry bodies to develop an improved awareness of and preparedness for the risks associated with climate change.

# Independent assurance statement

### To the board and stakeholders of Merafe Resources:

SustainabilityServices.co.za (SS) was commissioned by Merafe Resources (hereafter, Merafe) to provide independent third party assurance (ITPA) over the sustainability information within this Integrated Annual Report (hereafter, the Report) covering the period 1 January to 31 December 2011. The assurance team comprised primarily of Michael H. Rea, our principal Sustainability Assurance Practitioner, with 13 years experience in environmental and social performance measurement in over 30 assurance engagements in various countries: working either as part of a team (while in the employ of PwC and KPMG), or as an Independent Sustainability Consultant.

### AccountAbility AA1000AS (revised, 2008)

To the best of our ability, this assurance engagement has been managed in accordance with AccountAbility's AA1000AS (2008) assurance standard, where the format of the engagement was structured to meet the AA1000AS Type II (Moderate) requirements.

### Independence

SS was not responsible for the preparation of any part of the Report and has not undertaken any commissions for Merafe in the reporting period concerning reporting or data collection. SS has, however, conducted assurance engagements for Merafe's 2008 through 2010 Reports, including the identification of reporting gaps that ultimately have been incorporated into Merafe's 2011 reporting processes. However, this work has not compromised our ability to afford ITPA over this year's Report. SS's responsibility in performing its assurance activities is to the management of Merafe alone and in accordance with the terms of reference agreed with them.

### Assurance objectives

The objectives of the assurance process were to provide stakeholders of Merafe with an independent 'moderate level assurance' opinion on whether the report meets the AA1000AS (2008) principles of Inclusivity, Materiality and Responsiveness, as well as to assess the degree to which the Report is consistent with the Global Reporting Initiative (GRI) G3 guidelines, with the objective of establishing whether or not the Report has met the B+ level of reporting requirements. In meeting the Type II assurance objectives, SS undertook a review of selected sustainability performance indicators at two Xstrata-Merafe chrome venture (hereafter, the Venture) operational sites.

### Scope of work performed

#### AA1000AS (2008) compliance

The process used in arriving at this assurance statement is based on AccountAbility's AA1000AS (2008) guidance, as well as other best practices in assurance. Our approach to assurance included the following:

- A review of sustainability measurement and reporting procedures at Merafe's and Xstrata Alloys' head offices (due to the nature of the Venture)
- A review of data collection, collation and reporting procedures at *Lydenburg Works* and *Waterval Mine*, with specific reference to the following selected sustainability performance indicators:
    1. Total Recordable Injury Frequency Rate (TRIFR), including the number of Restricted Work and Medical Treatment Cases, as well as the calculation of Hours Worked
    2. Lost Time Injury Frequency Rate ((LTIFR), including the number of LTIs and the calculation of Hours Worked
    3. Fatal Injury Frequency Rate (FIFR), including the number of Fatalities and the calculation of Hours Worked
    4. Stakeholder Engagement – presence and application of site-specific engagement plans
    5. The percentage of 'Women in' and 'Women at Mining'
    6. Electricity consumption
    7. Petrol consumption
    8. Diesel consumption
    9. LPG/LNG consumption
    10. Total volume of water consumed – from all sources
    11. Total volume of water discharged from sites
    12. Presence and management of monitoring and evaluation programmes for Enterprise Development (ED)
    13. Presence and management of monitoring and evaluation programmes for Socio-economic Development (SED)
    14. SED – Alignment with community local economic development (LED) plans
    15. Progress towards Social and Labour Plan (SLP) commitments

- A review of drafts of the Report for any significant errors and/or anomalies and
- A series of interviews with the individual responsible for collating and writing various parts of the Report in order to ensure selected claims were reported and substantiated.

It should be noted that due to the scope and nature of this AA1000AS Type II (Moderate) assurance engagement, site visits were undertaken at *Lydenburg Works* and *Waterval Mine* to test the authenticity of data at the primary source of collection and collation, and this report has been assessed at the point of data aggregation for accuracy of reporting. Although Merafe has a policy of rotating site visits to ensure that sustainability monitoring, management and reporting systems are tested at representative sites throughout the group, a re-visit was conducted at *Lydenburg Works* due to strike action affecting access to other smelters during the assurance process. Previous site visits occurred at *Boshoek Smelter* and *Kroondal Mine* in 2009 and at *Lydenburg Works* and *Thorncliffe Mine* in 2010.

### GRI compliance

In determining the GRI G3 'Application Level' of the Report, we performed the following exercises:

- A review of the process used to define the content of the Report by looking at materiality of issues included in the Report, stakeholder engagement response to stakeholder issues identified, determination of sustainability context and coverage of material issues
- A review of the approach of management to addressing topics discussed in the Report
- A confirmation that the requisite number of performance indicators had been covered in the Report.

### Findings

Having conducted three prior cycles of assurance for Merafe – of which only the first cycle was limited to AA1000AS Type I (Moderate) assurance – this year's assurance process allowed for significant observation into the way in which Merafe, and its Venture partner Xstrata Alloys (XA), has used the assurance process as an opportunity for continuous improvement. At both sites – *Waterval Mine*, where the SD Manager had previously undergone an assurance cycle at *Kroondal Mine*, and *Lydenburg Works*, which was included in the 2010 assurance cycle – evidence was clearly visible to support their assertion that the sites had both learned from the assurance process, and had implemented improvements as a direct result.

Overall, it was determined in this year's assurance process that, in general, the company's sustainability reporting processes are adequate, and it was noted that:

### AA1000AS (Type II)

- Due to the nature of the Venture, Merafe relies on the Venture and Xstrata to obtain quantitative data with respect to most sustainability indicators
- The Venture, via the Xstrata Sustainability Database (XSD), undergoes a process of internal and independent assurance reviews of their key sustainability indicators
- All of the tested site-specific data within XSD was found to be reasonably accurate and/or reliable
- Improvements have been made within the Venture to ensure that Enterprise Development (ED) initiatives occur in a significant manner, and in accordance with Social and Labour Plan (SLP) commitments, and that specific ED projects are selected and/or designed to achieve maximum developmental returns on investment. Other improvements have been made to ensure that systems to monitor and evaluate ED projects for socio-economic impact are implemented
- Improvements have been made within the Venture to ensure that Socio-Economic Development (SED) initiatives occur in a significant manner, and in accordance with Social and Labour Plan (SLP) commitments and alignment with both the relevant Integrated Development Plans of the communities in which the Venture operates, and that specific SED projects are selected and/or designed to achieve maximum developmental return on investment. Additional improvements have been made to ensure that systems to monitor and evaluate SED projects for socio-economic impact are implemented
- Merafe actively engages an array of key stakeholders, as defined within this Report, but the assurance process did not allow for additional engagement to confirm or refute Merafe's assertion that the Report adequately reflects the information requirements of their key stakeholders, although management assertions of engagement were deemed reasonably supportable
- Within the parameters of a 'Moderate Level Type II assurance assessment', the Report – without exception – appears to reflect an accurate accounting of Merafe's performance, including the review of data supplied by XA and contained within this 2011 Integrated Annual Report.

### GRI G3

- Based on our review of the Report, as well as the processes employed to collect and collate information reported herein, it is our assertion that this Report meets the GRI G3's requirements for Application Level B (responses to all required indicators, as well as no fewer than 20 Core indicators, with at least one from each of Economic, Environment, Human Rights, Labour, Society and Product Responsibility). However, the reporting of

# Independent assurance statement (continued)

performance against some GRI G3 indicators continues to require either data quality improvements, or further detail in disclosure. Indicator-specific performance is identified in Merafe's GRI Indicator Table on page 113 of this report, adopting a colour-coding system to identify strengths, weaknesses and non-compliances.

## Recommendations

### AA1000AS (Type II)

- Merafe should continue, as it has been doing, to improve its reporting according to the principles of Inclusiveness, Materiality, and Responsiveness, as guided by AA1000AS (2008)
- Merafe should ensure that improvement continues to occur with respect to stakeholder engagement procedures, including an independent assessment of whether or not this Report, and all future Reports, adequately reflects the reporting requirements of key stakeholders
- Merafe should ensure that the Venture continues to improve its policies, procedures, systems and controls for the identification, selection and supporting of enterprise development (ED) initiatives, including the implementation of improved systems to monitor and evaluate ED projects for socio-economic impact
- Merafe should ensure that the Venture continues to improve its policies, procedures, systems and controls for the identification, selection and supporting of socio-economic development (SED) initiatives, including the implementation of improved systems to monitor and evaluate SED projects for socio-economic impact
- Merafe should continue to employ a sustainability reporting cycle that accommodates for AA1000AS (Type II) assurance over interim data (i.e., quarters 1 through 3)

### GRI G3

- Having successfully addressed the requirements of GRI G3 Application Level B (B+ with this assurance statement), it is our recommendation that Merafe continue to review the process followed in compiling its Report and, while making further improvements on the quality of required data, continue to report in alignment with no less than the requirements of GRI G3 Application Level B (B+ with independent third party assurance)

### Assurance

- As discussed within last year's assurance statement, it is generally accepted that companies rotate their assurance providers on a regular basis so as to avoid decreasing the overall level of true independence and/or the impacts of 'familiarity' on the overall quality of the assurance provided. As such, and given that SustainabilityServices.co.za has provided AA1000AS Type II (Moderate) assurance over three of Merafe's reports (2009, 2010 and 2011), it is recommended that Merafe opt for an alternate assurance provider for the 2012 report. Given that Merafe has already embarked on this process, and has reviewed alternate service providers, Merafe must merely ensure that new assurance providers are engaged for the 2012 report

## Conclusions

Based on the information reviewed, SustainabilityServices.co.za is confident that this report provides a comprehensive and balanced account of the environmental, safety and social performance of Merafe during the period under review. The data presented is based on a systematic process and we are satisfied that the reported performance data accurately represents the current environmental, safety and social performance of Merafe, while meeting the AA1000AS (2008) principles of Inclusivity, Materiality and Responsiveness. Moreover, and although the quality or quantity of data of some GRI G3 indicators can be improved, we are satisfied that the Report meets the GRI G3's requirements for Application Level B (B+ with this assurance engagement).

As this is the last year SustainabilityServices.co.za is available to act as an independent assurance provider over Merafe's reports, it seems appropriate to note that we believe Merafe has fully utilised the assurance process as a means for improving its reporting systems and controls, and we have been pleased to have been part of this process.



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Johannesburg

27 February 2012

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# Glossary

| | |
|---|---|
| ABET | Adult Basic Education and Training. ABET assists adult learners to become functionally literate and numerate |
| AIDS | Acquired Immune Deficiency Syndrome |
| BBBEE | Broad-Based Black Economic Empowerment – a form of black economic empowerment initiated by the South African government with the goal of distributing wealth across as broad a spectrum of South African society as possible |
| BEE | Black Economic Empowerment is a South African government policy aimed at increasing the participation of black people in the ownership, management and control of business |
| Biodiversity | An abbreviation of biological diversity, which means the full range of variety and variability within and among living organisms and the ecological complexes in which they occur and encompasses ecosystem or community diversity, species diversity and genetic diversity |
| Carbon intensity | Carbon intensity is calculated as tonnes of carbon dioxide equivalent ($CO_2$-e) emissions per tonne of product |
| $CO_2$ | Carbon dioxide |
| $CO_2$-e | Carbon dioxide equivalents |
| Company | Merafe Resources Limited |
| CSI | Corporate Social Involvement. CSI is based on the concept that organisations have a responsibility for the impact of their activities on customers, suppliers, employees, shareholders, communities and other stakeholders, as well as the environment. This obligation extends beyond the statutory obligation to comply with legislation and sees organisations voluntarily taking further steps to improve the quality of life for employees and their families as well as for the local community and society at large |
| DEA | Department of Environmental Affairs |
| Disabling injuries | Calculated as lost time injuries plus restricted work injuries (LTI + RWI) |
| DISR | Disabling injury severity rate. The number of disabling injuries per million hours worked |
| DMR | Department of Mineral Resources |
| dti Codes of Good Practice | The dti Codes of Good Practice are to be applied in the development, evaluation and monitoring of BEE charters, initiatives, transactions and other implementation mechanisms |
| EBITDA | Earnings before interest, tax, depreciation and amortisation |
| EMPR | Environmental Management Programme Report (the South African equivalent of an Environmental Impact Study) |
| EMS | Environmental Management System |
| Environmental Incident Categories | Category 1: Negligible – An incident that has caused negligible, reversible environmental impact, requiring very minor or no remediation |
| | Category 2: Minor – An incident that has caused minor, reversible environmental impact, requiring minor remediation |
| | Category 3: Significant – An incident that has caused moderate, reversible environmental impact, with medium-term effect, requiring major remediation |
| | Category 4: Serious – An incident that has caused serious environmental impact, with medium-term effect, requiring significant remediation |
| | Category 5: Disastrous – An incident that has caused disastrous environmental impact, with long-term effect, requiring major remediation |
| EPS | Earnings per share |

# Glossary (continued)

| | |
|---|---|
| ERM | Environmental Resources Management |
| FAPA | Ferro Alloys Producers Association |
| Fatality | A death resulting from an occupational injury or illness and identified within the reporting period |
| FeCr | Ferrochrome |
| FIFR | Fatal injury frequency rate. The number of fatalities per million hours worked |
| Fresh water intensity | Raw ground and surface water use per tonne of product |
| GHGs | Greenhouse gases (GHGs) are the gases present in Earth's atmosphere which reduce the loss of heat into space and contribute to global temperatures through the greenhouse effect. On Earth, the most abundant greenhouse gases are, in order of relative abundance: water vapour, carbon dioxide, methane, nitrous oxide, ozone and chlorofluorocarbons |
| GJ | Gigajoules (1 GJ = 1 000 000 000 joules) |
| Global Compact | The UN Global Compact is a voluntary corporate responsibility initiative to advance ten universal principles in the areas of human rights, labour, the environment and anti-corruption |
| GRI | Global Reporting Initiative. The GRI is a multi-stakeholder international process whose mission is to develop and disseminate globally applicable Sustainability Reporting Guidelines to assist corporations in reporting on the economic, environmental and social performance of their operation |
| Group | Merafe Resources Limited and all other group entities including the entities in Note 22 |
| Ha | Hectares (1 ha = 10 000 square metres) |
| HDSA | Historically disadvantaged South African |
| HIRA | Hazard Identification and Risk Assessment |
| HIV | Human Immunodeficiency Virus |
| HSEC | Health, Safety, Environment and Community |
| IAS | International Auditing Standards |
| ICDA | International Chromium Development Association |
| ICMM | International Council of Metals and Mining |
| IDC | Industrial Development Corporation |
| IFRS | International Financial Reporting Standards |
| IISI | International Iron and Steel Institute |
| ILO | International Labour Organisation |
| ISO | Organisation for Standardisation |
| ISO 14001 | The ISOs standard for environmental management systems |
| ISO 9001 | The ISOs standard for quality management systems |
| JIPSA | Joint Initiative on Priority Skills Acquisition. JIPSA is an initiative started to support ASGISA. Its objective is to identify urgent skills needs and quick and effective solutions. JIPSA seeks to equip people with skills so that they can participate in accelerated growth |
| JSE Limited Listings Requirements | What the JSE Limited requires of listed companies |
| JSE SRI Index | JSE Limited Socially Responsible Investment Index |

| | |
|---|---|
| JV | Joint Venture |
| Kl | Kilolitres are a metric unit of volume or capacity equal to 1 000 litres |
| ktpa | Kilotonnes per annum |
| kW | A kW (kilowatt) is a measure of the rate of energy use or production. 1kW = 1 000 watts |
| LTI | Lost time injury. An LTI is an occupational injury or illness that results in days away from work on any rostered shift subsequent to the day on which the injury occurred. A fatality is also recorded as an LTI |
| LTIFR | Lost time injury frequency rate. The number of LTIs per million hours worked ( = (LTI/hours worked) x 1 000 000) = LTIs/(hours worked/1 000 000) |
| $m^3$ | Cubic metres |
| Materiality | Materiality in reporting means disclosing all information of significant concern to stakeholders for assessing economic, environmental and social performance |
| Merafe | The company and Merafe Ferrochrome and Mining Proprietary Limited |
| MHMP | Major Hazard Management Plan |
| MHSC | Mine Health and Safety Council |
| Mining Charter | The policy objective stated in the South African Mineral and Petroleum Resources Development Act, which is to expand opportunities for historically disadvantaged South Africans to enter the mining and minerals industry or benefit from the exploitation of the nation's mineral resources |
| Ml | Megalitre (1Ml = 1 000 000 litres or 1 000 kilolitres) |
| MPRDA | South African Minerals and Petroleum Resources Development Act 2004. The MPRDA governs the transfer of mining rights and granting of mining authorisations |
| Mt | Megatonnes (1 Mt = 1 000 000 tonnes) |
| NAFTA | Countries who are signatories to the North American Free Trade Agreement |
| NAPCOF | North West Province Air Pollution Control Forum |
| New Companies Act | Companies Act 71 of 2008 and including the Corporate Laws Amendment Act |
| NGO | Non-Governmental Organisation |
| NIHL | Noise-Induced Hearing Loss |
| NOx | Oxides of nitrogen (nitric oxide and nitrogen dioxide) |
| Occupational illness | An occupational illness is registered when it is confirmed as a work-related compensable case by a medical practitioner/physician |
| OHSAS | Occupational Health and Safety Assessment Specification. OHSAS 18000 is an international occupational health and safety management system specification |
| Outotec technology | The Outotec® process to produce pellets with steel belt sintering and utilising Outotec's patented preheating method before smelting has competitive benefits. Using pellets with lumpy ore in smelting improves the recovery of chrome, the energy consumption falls and ferrochrome production increases. |
| PEPFAR | President's Emergency Plan for AIDS Relief – America's Initiative formed to combat the global HIV/AIDS epidemic |
| Potable water | Water of a suitable quality for human consumption |
| PPE | Personal Protective Equipment |
| PPP | Public-Private Partnership |

# Glossary (continued)

| | |
|---|---|
| PPPFA | Preferential Procurement Policy Framework Act 2000. The purpose of this Act is to enhance the participation of historically disadvantaged individuals (HDIs) and the small, medium and micro enterprises (SMMEs) in the public sector procurement system |
| Premus technology | This is proprietary technology for the production of ferrochrome, developed and patented by Xstrata Alloys. Premus technology has significant cost and environmental benefits compared to existing technology |
| Raw water | Raw water consists of untreated water extracted from groundwater, dams or rivers. Groundwater is extracted from wells, boreholes, cut off trenches and mine dewatering both on and off site. Surface water is defined as water from streams, lakes and dams including storm water and collected runoff |
| REACH | Registration, Education and Authorisation of Chemicals |
| Recycled water | Recycled/reused water is water that has been used at least once in a process within the operation or at another operation within the organisation that would otherwise be part of a waste stream, and if not reused, would require the input of raw water |
| ROM | Run of Mine |
| Royal Bafokeng Resources/RBR | Royal Bafokeng Resources Holdings Proprietary Limited |
| RWI | Restricted work injury |
| SABS | South African Bureau of Standards |
| Share Incentive Scheme | Means the new share incentive scheme approved by shareholders in 2010, together with the share incentive scheme in existence at that time approved by shareholders in 1999 |
| SLP | Social and Labour Plan. The Mineral and Petroleum Resources Development Act, 2002 (Act No 28 of 2002) (MPRDA) requires the submission of the Social and Labour Plan as a pre-requisite for the granting of mining or production rights. The Social and Labour Plan requires applicants for mining and production rights to develop and implement comprehensive Human Resources Development Programmes including Employment Equity Plans, Local Economic Development Programmes and processes to save jobs and manage downscaling and/or closure |
| SMEs | Small and Medium-Sized Enterprises |
| SMMEs | Small, Medium and Micro Enterprises |
| SOx | Sulphur oxide gases |
| TB | Tuberculosis – an infectious lung disease caused by exposure to airborne myco bacteria |
| The Venture | The Xstrata-Merafe Chrome Venture, the parties being Xstrata and Merafe |
| Total fresh water | Total fresh water is the sum of all water drawn into the boundaries of the reporting organisation from all sources (including surface water, groundwater, rainwater and municipal water supply) for any use over the course of the reporting period |
| Transformation | In South Africa the term transformation describes the ongoing process to develop a sustainable, equitable society and economy in South Africa |
| TRI | Total recordable injuries. TRI is a measure that includes lost time injuries (including fatalities), restricted work injuries and medical treatment injuries |
| VCT | Voluntary Counselling and Testing for HIV/AIDs |
| Waste water discharged | This consists of total volume of effluent discharged to surface water for irrigation, third parties for treatment and/or rivers or oceans |
| Xstrata | Xstrata South Africa Proprietary Limited |

# King III Index

| King III compliance index | Apply | Partially apply | Under review | Page reference |
|---|---|---|---|---|
| **Ethical leadership and corporate citizenship** | | | | |
| Effective leadership based on an ethical foundation | ✓ | | | 28, 36 |
| Responsible corporate citizen | ✓ | | | 36 |
| Effective management of company's ethics | ✓ | | | 28, 36 |
| Assurance statement on ethics in integrated report | ✓ | | | 102 |
| **Boards and directors** | | | | |
| The board is the focal point for and custodian of corporate governance | ✓ | | | 28 |
| Strategy, risk, performance and sustainability are inseparable | ✓ | | | 28, 32 |
| Directors act in the best interests of the company | ✓ | | | 32 |
| The Chairman of the board is an independent non-executive director | ✓ | | | 26, 28 |
| Framework for the delegation of authority has been established | ✓ | | | 28 |
| The board comprises a balance of power, with a majority of non-executive directors who are independent | ✓ | | | 28 |
| Directors are appointed through a formal process | ✓ | | | 32 |
| Formal induction and ongoing training of directors is conducted | ✓ | | | 32 |
| The board is assisted by a competent, suitably qualified and experienced Company Secretary | ✓ | | | 32 |
| Regular performance evaluations of the board, its committees and the individual directors | ✓ | | | 29 |
| Appointment of well-structured committees and oversight of key functions | ✓ | | | 32 – 33 |
| An agreed governance framework between the group and its subsidiary boards is in place | ✓ | | | 34 |
| Directors and executives are fairly and responsibly remunerated | ✓ | | | 38 – 40 |
| Remuneration of directors and senior executives is disclosed | ✓ | | | 39 |
| The company's remuneration policy is approved by its shareholders | ✓ | | | 38 |

# King III Index (continued)

| King III compliance index | Apply | Partially apply | Under review | Page reference |
|---|---|---|---|---|
| **Internal audit** | | | | |
| Effective risk-based internal audit | ✓[1] | ✓ | ✓ | 35, 171 |
| Written assessment of the effectiveness of the company's system of internal controls and risk management | ✓ | ✓ | ✓ | 35, 171 |
| Internal audit is strategically positioned to achieve its objectives | ✓[1] | ✓ | ✓ | 35, 171 |
| **Audit Committee** | | | | |
| Effective and independent | ✓ | | | 33, 34, 35 |
| Suitably skilled and experienced independent non-executive directors | ✓ | | | 33, 34, 35 |
| Chaired by an independent non-executive director | ✓ | | | 33, 34, 35 |
| Oversees integrated reporting | ✓ | | | 33, 34, 35 |
| A combined assurance model is applied to improve efficiency in assurance activities | ✓ | | | 33, 34, 35 |
| Satisfies itself of the expertise, resources and experience of the company's finance function | ✓ | | | 33, 34, 35 |
| Oversees internal audit | ✓ | | | 33, 34, 35 |
| Integral to the risk management process | ✓ | | | 33, 34, 35 |
| Oversees the external audit process | ✓ | | | 33, 34, 35 |
| Reports to the board and shareholders on how it has discharged its duties | ✓ | | | 122 |
| **Compliance with laws, codes, rules and standards** | | | | |
| The board ensures that the company complies with relevant laws | ✓ | | | 32 |
| The board and directors have a working understanding of the relevance and implications of non-compliance | ✓ | | | 32 |
| Compliance risk forms an integral part of the company's risk management process | ✓ | | | 33 |
| The board has delegated to management the implementation of an effective compliance framework and processes | ✓ | | | 33 |
| **Governing stakeholder relationships** | | | | |
| Appreciation that stakeholders' perceptions affect a company's reputation | ✓ | | | 24, 42, 43 |
| Management proactively deals with stakeholder relationships | | ✓[2] | | 24, 41, 42, 43 |
| There is an appropriate balance between its various stakeholder groupings | | ✓[3] | | 41 – 43, 55 – 59 |

| King III compliance index | Apply | Partially apply | Under review | Page reference |
|---|---|---|---|---|
| **Governing stakeholder relationships** *(continued)* | | | | |
| Equitable treatment of stakeholders | | ✓[4] | | 41 – 43 |
| Transparent and effective communication to stakeholders | | ✓[5] | | 41 – 43 |
| Disputes are resolved effectively and timeously | ✓ | | ✓[6] | 36, 37, 112 |
| **The governance of information technology** | | | | |
| The board is responsible for information technology (IT) governance | ✓ | | ✓[7] | 33 |
| IT is aligned with the performance and sustainability objectives of the company | ✓ | | | 33 |
| Management is responsible for the implementation of an IT governance framework | ✓ | | | 33 |
| The board monitors and evaluates significant IT investments and expenditure | ✓ | | | 33 |
| IT is an integral part of the company's risk management | ✓ | | | 33 |
| IT assets are managed effectively | ✓ | | | 33 |
| The Risk Committee and Audit Committee assist the board in carrying out its IT responsibilities | ✓ | | | 33 |
| **The governance of risk** | | | | |
| The board is responsible for the governance of risk and setting levels of risk tolerance | ✓ | | | 33 |
| The Risk Management Committee assists the board in carrying out its risk responsibilities | ✓ | | | 34 |
| The board delegates the process of risk management to management | ✓ | | | 33, 35 |
| The board ensures that risk assessments and monitoring is performed on a continual basis | ✓ | | | 33, 35 |
| Frameworks and methodologies are implemented to increase the probability of anticipating unpredictable risks | ✓ | | | 33, 34 |
| Management implements appropriate risk responses | ✓ | | | 35 |
| The board receives assurance on the effectiveness of the risk management process | ✓ | | | 34 |
| Sufficient risk disclosure to stakeholders | ✓ | | | IV, II, 33 |
| **Integrated reporting and disclosure** | | | | |
| Ensures the integrity of the company's integrated report | ✓ | | | 34 |
| Sustainability reporting and disclosure is integrated with the company's financial reporting | ✓ | | | 70 – 94 |
| Sustainability reporting and disclosure is independently assured | ✓ | | | 102 |

# King III Index (continued)

### Compliance, partial compliance and non-compliance explanations

Stakeholder engagement is dealt with in detail on pages 70 to 87 of the annual report. However, the following points need to be noted:

1. The Venture has an effective risk-based internal audit, which is strategically positioned to achieve its objectives. The Venture's Audit and Risk Committee oversees internal audit, but currently the Merafe Risk and Audit Committee does not oversee internal audit in Merafe. The company is in the process of establishing an internal audit function.
2. Although management deals with stakeholder relationships on an ongoing basis, it has been established that room for improvement continues to exist with respect to the effective and proactive engagement of 'all' stakeholders. This has been cited as a continuous improvement item.
3. Although management believes that all stakeholder groupings are reasonably engaged, the issue of "appropriate balance" is still to be determined, primarily due to the lack of clarity around what is meant by "appropriate balance". This will remain an issue to be monitored for potential continuous improvement.
4. As above, management believes that although all stakeholder groupings are reasonably engaged, the issue of "equitable treatment" is still to be determined, primarily due to the lack of clarity around what is meant by "equitable treatment". This will remain an issue to be monitored for potential continuous improvement.
5. Merafe believes that the company's stakeholder engagement policies and procedures lend themselves to ensuring transparent and effective communication to stakeholders. However, this assertion has not been adequately tested, and therefore remains an issue to be monitored for potential continuous improvement.
6. Merafe's major agreement is its agreement with Xstrata regarding the Venture. Within the agreement there are various dispute resolution mechanisms, including an arbitration clause. There have been no disputes referred to arbitration since the start of the Venture in 2004. The parties are considering introducing an alternate dispute resolution mechanism as recomended by King III prior to either party having the right to proceed to arbitration.
7. As referred to on page 33.

# Global reporting index (GRI) Content Index 2011

| Profile Disclosure | Description | Reference |
|---|---|---|
| **Standard disclosures part I** | | |
| **1. Strategy and analysis** | | |
| 1.1 | Statement from the most senior decision-maker of the organisation. | 16 – 21<br>24 – 25 |
| 1,2 | Description of key impacts, risks, and opportunities. | 4 – 5, 10 – 11, 13, 16 – 21 |
| **2. Organisational Profile** | | |
| 2.1 | Name of the organisation. | 1, 2 |
| 2.2 | Primary brands, products, and/or services. | 2 |
| 2.3 | Operational structure of the organisation, including main divisions, operating companies, subsidiaries, and joint ventures. | 2 |
| 2.4 | Location of organisation's headquarters. | IBC |
| 2.5 | Number of countries where the organisation operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report. | 2, 8 – 9 |
| 2.6 | Nature of ownership and legal form. | 1, 2 |
| 2.7 | Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries). | 2, 4 – 5 |
| 2.8 | Scale of the reporting organisation. | 3, 4 – 5, 8 – 9, 12, 52, 61 – 69, 73 |
| 2.9 | Significant changes during the reporting period regarding size, structure, or ownership. | 1, 18 |
| 2.10 | Awards received in the reporting period. | 3, 24 |
| **3. Report Parameters** | | |
| 3.1 | Reporting period (e.g., fiscal/calendar year) for information provided. | 1 |
| 3.2 | Date of most recent previous report (if any). | 1 |
| 3.3 | Reporting cycle (annual, biennial, etc.) | 1 |
| 3.4 | Contact point for questions regarding the report or its contents. | 1 |
| 3.5 | Process for defining report content. | 1, 5 |
| 3.6 | Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance. | 1 |
| 3.7 | State any specific limitations on the scope or boundary of the report (see completeness principle for explanation of scope). | 1 |
| 3.8 | Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organisations. | 1 |
| 3.9 | Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols. | 1, 60 – 69, 70, 88 |
| 3.10 | Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/ acquisitions, change of base years/periods, nature of business, measurement methods). | 1 |
| 3.11 | Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report. | 1, 113 – 118, 53 |
| 3.12 | Table identifying the location of the Standard Disclosures in the report. | 113 – 118 |
| 3.13 | Policy and current practice with regard to seeking external assurance for the report. | 1, 102 – 104 |

# Global reporting index (GRI) Content Index 2011 (continued)

| Profile Disclosure | Description | Reference |
|---|---|---|
| **4. Governance, Commitments and Engagement** | | |
| 4.1 | Governance structure of the organisation, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organisational oversight. | 26 – 37 |
| 4.2 | Indicate whether the Chair of the highest governance body is also an executive officer. | 26, 28 |
| 4.3 | For organisations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members. | 28, 30 |
| 4.4 | Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body. | 32, 33 |
| 4.5 | Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organisation's performance (including social and environmental performance). | 38 – 40 |
| 4.6 | Processes in place for the highest governance body to ensure conflicts of interest are avoided. | 28 |
| 4.7 | Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organisation's strategy on economic, environmental, and social topics. | 28 – 29, 32 |
| 4.8 | Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation. | 28, 36 |
| 4.9 | Procedures of the highest governance body for overseeing the organisation's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles. | 33 |
| 4.10 | Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance. | 29 |
| 4.11 | Explanation of whether and how the precautionary approach or principle is addressed by the organisation. | 10 – 11, 35 |
| 4.12 | Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organisation subscribes or endorses. | 1, 37 |
| 4.13 | Memberships in associations (such as industry associations) and/or national/ international advocacy organisations in which the organisation:<br>* Has positions in governance bodies; * Participates in projects or committees;<br>* Provides substantive funding beyond routine membership dues; or<br>* Views membership as strategic. | 37, 53, 89 |
| 4.14 | List of stakeholder groups engaged by the organisation. | 2, 41 – 43, 54 – 59 |
| 4.15 | Basis for identification and selection of stakeholders with whom to engage. | 41, 54 |
| 4.16 | Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group. | 41– 43, 54 – 59 |
| 4.17 | Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics and concerns, including through its reporting. | 41– 43, 54 – 59 |

| Profile Disclosure | Description | Reference |
|---|---|---|
| **Standard disclosures part II: Disclosures on Management Approach (DMAs)** | | |
| DMA EC | Disclosure on Management Approach EC | 46, 78 |
| DMA EN | Disclosure on Management Approach EN | 88 – 89 |
| DMA LA | Disclosure on Management Approach LA | 71 – 74, 78, 82 |
| DMA HR | Disclosure on Management Approach HR | 36 |
| DMA SO | Disclosure on Management Approach SO | 36 |
| DMA PR | Disclosure on Management Approach PR | 52 |
| **Standard disclosures part III: Performance Indicators** | | |
| **Economic** | | |
| EC2 | Financial implications and other risks and opportunities for the organisation's activities due to climate change. | 88 – 89 |
| EC3 | Coverage of the organisation's defined benefit plan obligations. | 140 – 141 |
| EC6 | Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation. | 77, 82 – 85 |
| EC7 | Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation. | 77 |
| EC7 MMSS Additional Commentary | Commentary added to include proportion of local workforce as well as local management. | 78, 85 |
| EC8 | Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement. | 84 – 87 |
| EC9 | Understanding and describing significant indirect economic impacts, including the extent of impacts. | 4, 83 |
| **Environmental** | | |
| EN2 | Percentage of materials used that are recycled input materials. | 92 |
| EN2 MMSS Additional Commentary | Commentary added to clarify the scope of 'scrap' definitions. | 92 |
| EN3 | Direct energy consumption by primary energy source. | 89 |
| EN4 | Indirect energy consumption by primary source. | 89 |
| EN5 | Energy saved due to conservation and efficiency improvements. | 89 |
| EN8 | Total water withdrawal by source. | 90 |
| EN9 | Water sources significantly affected by withdrawal of water. | 91 |
| EN10 | Percentage and total volume of water recycled and reused. | 90 – 91 |
| EN11 | Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas. | 93 |
| EN12 | Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas. | 93 – 95 |
| EN12 MMSS Additional Commentary | Commentary added to emphasise the link to resettlement and closure activities.<br>Compilation added to report on biodiversity impacts of resettlement or closure. | 95 |
| EN13 | Habitats protected or restored. | 93 – 94 |
| EN14 | Strategies, current actions, and future plans for managing impacts on biodiversity. | 93 |
| EN15 | Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk. | 95 |
| EN16 | Total direct and indirect greenhouse gas emissions by weight. | 89 |
| EN17 | Other relevant indirect greenhouse gas emissions by weight. | 89 |
| EN18 | Initiatives to reduce greenhouse gas emissions and reductions achieved. | 89, 90 |
| EN20 | NOx, SOx, and other significant air emissions by type and weight. | 90 |

# Global reporting index (GRI) Content Index 2011 (continued)

| Profile Disclosure | Description | Reference |
|---|---|---|
| EN20 MMSS Additional Commentary | Commentary added to include mobile and stationary sources. | 90 |
| EN21 | Total water discharge by quality and destination. | 91 |
| EN22 | Total weight of waste by type and disposal method. | 92 |
| EN22 MMSS Additional Commentary | Commentary added to clarify the scope of waste in relation to MM3. | 92 – 93 |
| EN23 | Total number and volume of significant spills. | 92 |
| EN24 | Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally. | 92 |
| EN25 | Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organisation's discharges of water and runoff. | 93 |
| EN26 | Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation. | 88 |
| EN28 | Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations. | 92 |
| EN29 | Significant environmental impacts of transporting products and other goods and materials used for the organisation's operations, and transporting members of the workforce. | 88 |
| **Social: Labour Practices and Decent Work** | | |
| LA1 | Total workforce by employment type, employment contract, and region. | 77 |
| LA2 | Total number and rate of employee turnover by age group, gender, and region. | 77 |
| LA3 | Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations. | 77 |
| LA4 | Percentage of employees covered by collective bargaining agreements. | 77 |
| LA5 | Minimum notice periods regarding significant operational changes, including whether it is specified in collective agreements. | 77 |
| LA6 | Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programmes. | 74 |
| LA7 | Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region. | 3, 21, 71 – 73 |
| LA7 MMSS Additional Commentary | Commentary added under compilation to include a description of fatal accidents. | 3, 21, 71 – 73 |
| LA8 | Education, training, counselling, prevention, and risk-control programmes in place to assist workforce members, their families, or community members regarding serious diseases. | 74 – 76 |
| LA9 | Health and safety topics covered in formal agreements with trade unions. | 71 |
| LA10 | Average hours of training per year per employee by employee category. | 80 – 81 |
| LA11 | Programmes for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings. | 80 – 81 |
| LA12 | Percentage of employees receiving regular performance and career development reviews. | 79 |

| Profile Disclosure | Description | Reference |
|---|---|---|
| LA13 | Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity. | 26 – 27, 30, 77 |
| **Social: Human Rights** | | |
| HR2 | Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken. | 36 |
| HR3 | Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained. | 36, 80 |
| HR4 | Total number of incidents of discrimination and actions taken. | 36 |
| HR5 | Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights. | 36 |
| HR5 MMSS Additional Commentary | Commentary added under compilation to report how freedom of association policy is implemented. | 36 |
| HR6 | Operations identified as having significant risk for incidents of child labour, and measures taken to contribute to the elimination of child labour. | 36 |
| HR7 | Operations identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of forced or compulsory labour. | 36 |
| HR8 | Percentage of security personnel trained in the organisation's policies or procedures concerning aspects of human rights that are relevant to operations. | 36 |
| HR9 | Total number of incidents of violations involving rights of indigenous people and actions taken. | 36 |
| **Social: Society** | | |
| SO1 | Nature, scope, and effectiveness of any programmes and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting. | 82 |
| SO2 | Percentage and total number of business units analysed for risks related to corruption. | 36 |
| SO3 | Percentage of employees trained in organisation's anti-corruption policies and procedures. | 36, 80 |
| SO4 | Actions taken in response to incidents of corruption. | 36 |
| **Social: Product Responsibility** | | |
| PR1 | Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures. | 53 |
| PR6 | Programmes for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship. | 53 |
| **Sector Supplement for Mining and Metals** | | |
| MM1 | Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated. | 93 |
| MM2 | The number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and the number (percentage) of those sites with plans in place. | 93 |
| MM3 | Total amounts of overburden, rock, tailings, and sludges presenting potential hazards. | 95 |
| MM4 | Number of strikes and lockouts exceeding one week's duration, by country. | 37 |
| MM5 | Total number of operations taking place in or adjacent to Indigenous Peoples' territories, and number and percentage of operations or sites where there are formal agreements with Indigenous Peoples' communities. | n/a |

# Global reporting index (GRI) Content Index 2011 (continued)

| Profile Disclosure | Description | Reference |
|---|---|---|
| MM6 | Number and description of significant disputes relating to land use, customary rights of local communities and indigenous peoples. | 83 |
| MM7 | The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and indigenous peoples, and their outcomes. | 83 |
| MM8 | Number (and percentage) of company operating sites where artisanal and small-scale mining (ASM) takes place on, or adjacent to, the site; describe the associated risks and the actions taken to manage and mitigate these risks. | 83 |
| MM9 | Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process. | 53 |
| MM10 | Number and percentage of operations with closure plans. | 95 |
| MM11 | Programmes and progress relating to materials stewardship. | 53 |



Pelletising and sintering plant at Boshoek ferrochrome plant, North West province

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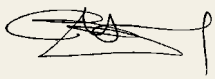

These Annual Financial Statements have been audited in compliance with section 30 of the Companies Act, 71 of 2008, as amended.

The following individuals were responsible for the preparation of the Annual Financial Statements:



*Kajal Bissessor CA(SA)*

Financial Manager



*Zanele Matlala CA(SA)*

Chief Financial Officer

# Directors' responsibility and approval of the annual financial statements

for the year ended 31 December 2011

The directors are responsible for the preparation and fair presentation of the annual financial statements of the company and the group annual financial statements, comprising the directors' report, statements of financial position at 31 December 2011, the statements of comprehensive income, changes in equity, and cash flows for the year then ended and the notes to the financial statements, which include a summary of significant accounting policies and other explanatory notes in accordance with International Financial Reporting Standards (IFRS), the AC500 series as issued by the Accounting Practices Board and its successor and the requirements of the Companies Act of South Africa.

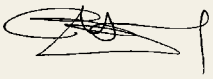
The directors are also responsible for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error and for maintaining adequate accounting records and an effective system of risk management.

The directors have made an assessment of the company and its subsidiaries' ability to continue as going concerns and have no reason to believe that the businesses will not be going concerns in the year ahead.

The auditor is responsible for reporting on whether the company annual financial statements and group annual financial statements are fairly presented in accordance with the applicable financial reporting framework.

### Approval of group and company annual financial statements

The group and company annual financial statements were approved by the board of directors on 1 March 2012 and signed on its behalf by:



*Zanele Matlala CA(SA)*

Chief Financial Officer
1 March 2012

# Company Secretary's certification

for the year ended 31 December 2011

I certify that, to the best of my knowledge and belief, the company has lodged with the Registrar of Companies all such returns as are required to be lodged by a public company in terms of section 88 (2)(e) of the Companies Act of South Africa, and that all such returns appear to be true, correct and up to date.



*Amritha Mahendranath*

Company Secretary
1 March 2012

# Report of the Audit and Risk Committee

for the year ended 31 December 2011

The Audit and Risk Committee reports that it has adopted formal terms of reference as its Audit and Risk Committee Charter, and that it has discharged all of its responsibilities for the current financial year, in compliance with the Charter.

The Audit and Risk Committee is satisfied that an adequate system of internal control is in place to reduce significant risks faced by the group to an acceptable level, and that these controls have been effective throughout the period under review. The system is designed to manage, rather than eliminate, the risk of failure and to maximise opportunities to achieve business objectives. This can provide only reasonable, but not absolute assurance.

As required by the JSE Limited Listings Requirement 3.84(h), the Audit and Risk Committee has satisfied itself that Zanele Matlala, the Chief Financial Officer during the current financial year, has appropriate experience and expertise.

The Audit and Risk Committee has evaluated the group and company annual financial statements of Merafe Resources Limited for the year ended 31 December 2011 and based on the information provided to the Audit and Risk Committee, considers that it complies, in all material respects with the requirements of the various Acts governing disclosure and reporting in the annual financial statements. The Audit and Risk Committee has evaluated the independence of the external auditors and the Audit and Risk Committee is satisfied that the external auditors have remained independent. The Audit and Risk Committee therefore recommends the adoption of the annual financial statements by the board.



*Mfanyana Salanje CA(SA)*

Chairperson – Audit and Risk Committee
1 March 2012

# Independent auditors' report

## To the shareholders of Merafe Resources Limited

for the year ended 31 December 2011

We have audited the group annual financial statements and the annual financial statements of Merafe Resources Limited which comprise the statements of financial position at 31 December 2011, the statements of comprehensive income, changes in equity and cash flows for the year then ended and the notes to the financial statements, which include a summary of significant accounting policies and other explanatory notes, and the directors' report as set out on pages 124 to 185.

### Directors' responsibility for the financial statements

The company's directors are responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards and the requirements of the Companies Act of South Africa and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement whether due to fraud or error.

### Auditors' responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal controls relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate under the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

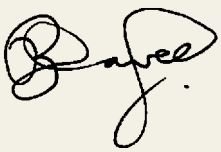
We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Opinion

In our opinion, these financial statements present fairly, in all material respects, the consolidated and separate financial position of Merafe Resources Limited at 31 December 2011, its consolidated and separate financial performance and consolidated and separate cash flows for the year then ended in accordance with International Financial Reporting Standards, and the requirements of the Companies Act of South Africa.

*KPMG Inc.*

Registered Auditors



*Per Riaan Davel*

Chartered Accountant (SA)
Registered Auditor
Director
1 March 2012

KPMG Crescent
85 Empire Road
Parktown
Johannesburg

# Directors' report

for the year ended 31 December 2011

## 1. Nature of business

The company, through its wholly-owned ultimate subsidiary, Merafe Ferrochrome and Mining Proprietary Limited (Merafe Ferrochrome) and through a pooling and sharing venture with Xstrata, participates in chrome mining and the beneficiation of chrome ore into ferrochrome. The Venture operates five ferrochrome smelters, twenty ferrochrome furnaces and nine mines and Merafe Ferrochrome's share of the earnings before interest, taxation, depreciation and amortisation (EBITDA) is 20.5%.

Merafe Ferrochrome has granted the right of use of the following ferrochrome plants, pelletising assets, chrome mines and UG2 plants to the Venture:

| Ferrochrome smelters | | Chrome mines | | UG2 plants and pelletisers | |
|---|---|---|---|---|---|
| Asset | Merafe Ferrochrome's interest | Asset | Merafe Ferrochrome's interest | Asset | Merafe Ferrochrome's interest |
| Wonderkop smelter (furnaces 5 & 6) | 50% | Horizon mine | 100% | Impala Kanana UG2 plant | 100% |
| Boshoek smelter | 100% | Boshoek mine | 100% | Lonmin UG2 plants | 20.5% |
| Lion I smelter | 20.5% | Kroondal and Wonderkop mine | 20.5% | Mototolo UG2 plant | 20.5% |
| Lion II smelter * | 20.5% | Helena mine | 20.5% | Bokamoso pelletising plant | 20.5% |
| | | Magareng mine** | 20.5% | Boshoek pelletising plant | 100% |
| | | | | Tswelopele pelletising plant * | 20.5% |

* *Currently under construction*

** *Currently under development*

## 2. Group financial results

The financial statements set out the financial results of the group and company on pages 129 to 185. These financial statements have been prepared using appropriate accounting policies, conforming to International Financial Reporting Standards, supported by reasonable and prudent judgements where required.

Merafe Ferrochrome's share of EBITDA from the Venture is accounted for at 20.5%. In addition to Merafe Ferrochrome's share of EBITDA from the Venture, corporate expenses, interest on debt, depreciation and interest received is accounted for in order to determine earnings before taxation of the group. Refer to Note 1.3.2, Basis of consolidation - Transactions with the Venture, for further information regarding the accounting policy for Merafe Ferrochrome's interest in the Venture.

## 3. Loans and borrowings

During December 2011, management concluded an agreement with ABSA Capital for a R800m loan facility. R300m (refer Note 9.2) was utilised as at reporting date and the remaining R500m is an additional facility.

## 4. Venture projects

| Description | Project cost (Merafe's portion at 20.5% cost) | Expected Completion date | Progress |
|---|---|---|---|
| Lonmin UG2 Plants - 1,5 million tonnes UG2 chrome ore per annum | R44m | H1 2011 | Completed within schedule/budget |
| Waterval mine development - 30 000 tonnes of chrome ore per month | R17m | H2 2012 | Completed within schedule/budget |
| Horizon mine development - 40 000 tonnes of chrome ore per month | R66m | H1 2013 | On track to be completed within schedule/budget |
| Project Tswelopele - 600 000 tonnes per annum pelletising and sintering plant | R188m | H2 2012 | On track to be completed within schedule/budget |
| Lion II smelter complex - 360 000 tonnes per annum of ferrochrome smelting capacity and development of Magareng mine | R1bn | Magareng mine H1 2013<br>Lion II H2 2013 | On track to be completed within schedule/budget |

### 4.1 Merafe's right to increase its interest to 26% in the Venture

During the current financial year, management were in discussions with Xstrata to increase Merafe's interest in the Venture to 26%. As a portion of the funding thereof would have been in the form of new equity, due to equity market conditions at the time, the Board decided not to exercise its right to increase its interest from 20.5% to 26% in the Venture.

## 5. Going concern

The directors believe that the company has sufficient resources and expected cash flows to continue as a going concern for the year ahead.

## 6. Dividend policy

The company has a hybrid dividend policy that has features of a stable dividend policy and a residual dividend policy. The company intends to pay a stable dividend once a year, based on the annual financial performance, expansionary projects and economic circumstances prevailing at the time. In addition, in any given year, the directors may consider an additional distribution in the form of special dividends and/or share buy backs dependent on the company's financial condition, future cash requirements, future earnings prospects, availability of distributable reserves and other factors. Dividends are recognised when they are declared by the board of the company.

## 7. Ordinary dividends

An ordinary dividend of R49m was declared on 25 February 2011 and paid on 29 March 2011.

## 8. Share capital

Full details of the authorised and issued share capital of the company are set out in Note 6 to the annual financial statements.

# Directors' report (continued)

for the year ended 31 December 2011

## 9. Directorate

The following changes to the board of directors were effected during the current year:

| Name | Effective date | Details |
|---|---|---|
| Ms Mpho Mosweu | 2 March 2011 | Joined the board as a non-executive director |
| Mr Zed van der Walt | 1 July 2011 | Joined the board as an independent non-executive director |

Non-executive directors are remunerated quarterly for their contribution to the board. Executive directors do not receive board fees in addition to their remuneration. Details of the current board of directors are set out on pages 26 and 27 of this annual report. A detailed report on directors' remuneration has been prepared in accordance with the JSE Limited Listings Requirements and Companies Act and appears in Note 22.1 to the annual financial statements.

## 10. Major shareholders

The following shareholders were the registered holders of 5% or more of the issued ordinary shares in the company at 31 December 2011:

- Royal Bafokeng Resources Holdings Proprietary Limited – 28.9%
- The Industrial Development Corporation of South Africa Limited – 21.9%
- J P Morgan Asset Management (UK) Limited – 5.3%

## 11. Directors' interests in Merafe Resources Limited

As at 31 December 2011, the directors of the company are beneficially interested (directly and indirectly) in 11 417 225 (31 December 2010: 11 417 225 shares) in the company.

| | 2011 | | 2010 | |
|---|---|---|---|---|
| | Direct | Indirect | Direct | Indirect |
| Stuart Elliot | 10 076 115 | – | 10 076 115 | – |
| Bruce McBride | – | 1 000 000 | – | 1 000 000 |
| Zanele Matlala | 24 500 | – | 24 500 | – |
| Steve Phiri | 254 000 | – | 254 000 | – |
| Belese Majova | – | 62 610 | – | 62 610 |
| Total | 10 354 615 | 1 062 610 | 10 354 615 | 1 062 610 |

## 12. Special Resolutions

There were no specials resolutions for Merafe Resources and Merafe Ferrochrome and Mining passed during the year. There was one special resolution relating to the subsidiary, Merafe Chrome and Alloys passed during the year:
24 November 2011

Special Resolution Number 1: Loans or other financial assistance to related or inter-related companies.

"**Resolved that,** subject to compliance with the requirements of the company's memorandum of incorporation, the Companies Act and the Listings Requirements of the JSE Limited, each as presently constituted and as amended from time to time, the board of directors of the company (the "Board") be and are hereby authorised, for a period of two years from the date of this meeting, on such terms and conditions that the Board may determine, to provide any direct or indirect financial assistance ("financial assistance" will herein have the meaning attributed to such terms in section 45(1) of the Companies Act) to a related or inter-related corporation (or to a member of a related or inter-related corporation) or any person related to any of them."

## 13. Details of investments in subsidiaries

| Investments in subsidiaries | Issued share capital 2011 and 2010 Number of shares | Percentage holding 2011 % | Percentage holding 2010 % | Shares at cost 2011 R | Shares at cost 2010 R | Loans (from)/to subsidiaries 2011 R'000 | Loans (from)/to subsidiaries 2010 R'000 |
|---|---|---|---|---|---|---|---|
| **Directly held** | | | | | | | |
| Merafe Chrome and Alloys Proprietary Limited | 200 | 100 | 100 | 200 | 200 | 1 187 655 | 1 265 059 |
| Merafe Manganese Proprietary Limited | 100 | 100 | 100 | 100 | 100 | * | * |
| Merafe Coal Proprietary Limited | 100 | 100 | 100 | 100 | 100 | * | * |
| South African Chrome and Alloys Proprietary Limited | 100 | 100 | 100 | 100 | 100 | * | * |
| South African Ferrochrome and Mining Proprietary Limited | 100 | 100 | 100 | 100 | 100 | * | * |
| **Indirectly held** | | | | | | | |
| Merafe Ferrochrome and Mining Proprietary Limited | 400 | 100 | 100 | 400 | 400 | * | * |
| PSV Resources Kroondal Proprietary Limited | 100 | 50 | 50 | 50 | 50 | – | – |
| PSV Resources Marikana Proprietary Limited | 100 | 26 | 26 | 26 | 26 | – | – |
| PSV Resources Waterval Proprietary Limited | 200 | 20,5 | 20,5 | 41 | 41 | – | – |

* *less than R1 000*

Interest in the profits of subsidiaries for the year ended 31 December 2011 amounted to R147.2m and interests in the profits of subsidiaries for the year ended 31 December 2010 amounted to R159.2m. Subsidiaries are incorporated in the Republic of South Africa.

## 14. Special purpose entities

In accordance with SIC 12 Consolidations – Special Purpose Entities, the following entities are consolidated and considered to be subsidiaries of the Merafe Resources Limited group:

- Horizon Nature Conservation Trust
- Merafe Kroondal Rehabilitation Trust
- Merafe Resources Limited Share Incentive Scheme Trust

Refer to the related parties Note 22 for further details on investments in subsidiaries and special purpose entities.

# Directors' report (continued)

for the year ended 31 December 2011

## 15. Property, plant and equipment

There were no changes in the nature of property, plant and equipment or in the policy regarding their use during the year. Management is of the opinion that the carrying value of property, plant and equipment is reflected at less than its recoverable amount and other than the Wonderkop north pelletising plant that was impaired during the current financial year, no other impairment was considered necessary.

## 16. Events after the reporting date

1. **Awarding of prospecting rights over the farms St George and Richmond**
   Xstrata, on behalf of the Venture was granted Prospecting Right 2798 (PR) on 8 February 2012 in respect of chrome over the farms St George and Richmond, a total of 4 019.9 hectares which is contiguous to the Thorncliffe mining complex. Prospecting will commence during 2012.

2. **South African Revenue Services (SARS) VAT audit of Merafe Ferrochrome and Mining Proprietary Limited**
   During February 2012, SARS issued an assessment letter to the value of R112m, including interest and penalties, primarily relating to the disallowance of input VAT claimed on Project Bokamoso and Project Lion I for the financial years of 2005 to 2008, following a VAT audit. Management's view supported by independent tax advisors and senior legal counsel, is that the assessment is incorrect and that the Company was entitled to claim VAT on Project Bokamoso and Project Lion I. SARS have been informed of the intention to object to the assessment.

3. **Agreement with Eskom to buy back energy not consumed**
   As per SENS announcement dated 17 February 2012, the Venture has reached agreement with Eskom to assist with the power utility's power supply requirements. The Venture will temporarily close five of its furnaces from 18 February 2012 until 31 May 2012 and in return, Eskom will buy-back the energy not consumed by these five furnaces. The arrangement will have a net positive economic impact for both the Venture and Eskom. The ferrochrome production loss to the Venture is estimated to be 100 000 tonnes.

# Statements of comprehensive income

for the year ended 31 December 2011

| | Notes | Group 2011 R'000 | Group 2010 R'000 | Company 2011 R'000 | Company 2010 R'000 |
|---|---|---|---|---|---|
| Revenue | 14 | 2 426 755 | 2 558 441 | 22 090 | 32 367 |
| Foreign exchange gains/(losses) | | 80 930 | (39 519) | – | – |
| Operating and other (expenses)/income | | (2 127 860) | (1 989 107) | (34 378) | 84 915 |
| Earnings/(losses) before interest, taxation, depreciation and impairment | | 379 825 | 529 815 | (12 288) | 117 282 |
| Depreciation and impairment | | (153 113)* | (113 535)* | (437) | (208) |
| Results from operating activities | 15 | 226 712 | 416 280 | (12 725) | 117 074 |
| Net finance (expense)/income | 16 | (21 565) | (24 997) | 627 | 5 881 |
| Finance expense | | (32 853) | (33 853) | (4 383) | (1) |
| Finance income | | 11 288 | 8 856 | 5 010 | 5 882 |
| Profit/(loss) before income tax | | 205 147 | 391 283 | (12 098) | 122 955 |
| Income tax | 17 | (88 397) | (112 579) | (3 319) | (3 482) |
| Profit/(loss) and total comprehensive income for the year | | 116 750 | 278 704 | (15 417) | 119 473 |
| Profit/(loss) and total comprehensive income for the year attributable to: | | | | | |
| Owners of the company | | 116 750 | 278 704 | (15 417) | 119 473 |
| Earnings per share | | | | | |
| Basic earnings per share (cents) | 18.1 | 5 | 11 | | |
| Diluted earnings per share (cents) | 18.3 | 5 | 11 | | |

* *Includes R112m depreciation (2010: R114m) and R41m impairment (2010:Rnil)*

# Statements of financial position

as at 31 December 2011

| | Notes | Group 2011 R'000 | Group 2010 R'000 | Company 2011 R'000 | Company 2010 R'000 |
|---|---|---|---|---|---|
| **Assets** | | | | | |
| Property, plant and equipment | 2.1 | 2 372 768 | 2 192 600 | 3 898 | 4 063 |
| Investments in subsidiaries | 3 | | | 1 187 655 | 1 264 957 |
| Deferred tax assets | 11 | – | – | 6 365 | 5 015 |
| **Total non-current assets** | | 2 372 768 | 2 192 600 | 1 197 918 | 1 274 035 |
| Inventories | 4 | 1 065 932 | 865 251 | | – |
| Trade and other receivables | 5 | 262 979 | 435 514 | 33 954 | 157 |
| Current tax assets | | – | 3 519 | – | – |
| Cash and cash equivalents | 19.1 | 220 459 | 320 724 | 120 575 | 86 304 |
| **Total current assets** | | 1 549 370 | 1 625 008 | 154 529 | 86 461 |
| Total assets | | 3 922 138 | 3 817 608 | 1 352 447 | 1 360 496 |
| **Equity** | | | | | |
| Share capital | 6 | 24 932 | 24 767 | 24 932 | 24 767 |
| Share premium | 7 | 1 262 481 | 1 253 568 | 1 262 481 | 1 253 568 |
| Equity-settled share-based payment reserve | 8 | 31 759 | 24 391 | 31 759 | 24 391 |
| Retained earnings/(accumulated loss) | | 1 339 496 | 1 272 279 | (19 815) | 45 135 |
| **Total equity attributable to equity holders of the company** | | 2 658 668 | 2 575 005 | 1 299 357 | 1 347 861 |
| **Liabilities** | | | | | |
| Loans and borrowings | 9 | 312 778 | 312 786 | 1 608 | 1 542 |
| Provision for closure and restoration costs | 10 | 48 396 | 39 439 | – | – |
| Deferred tax liability | 11 | 506 204 | 469 534 | – | – |
| **Total non-current liabilities** | | 867 378 | 821 759 | 1 608 | 1 542 |
| Loans and borrowings | 9 | 508 | 831 | – | – |
| Financial liability | 12 | 6 098 | 11 048 | – | – |
| Trade and other payables | 13 | 375 946 | 408 965 | 51 482 | 11 093 |
| Current tax liability | | 13 540 | – | – | – |
| **Total current liabilities** | | 396 092 | 420 844 | 51 482 | 11 093 |
| **Total liabilities** | | 1 263 470 | 1 242 603 | 53 090 | 12 635 |
| Total equity and liabilities | | 3 922 138 | 3 817 608 | 1 352 447 | 1 360 496 |

# Statements of changes in equity

for the year ended 31 December 2011

| | Notes | Group 2011 R'000 | Group 2010 R'000 | Company 2011 R'000 | Company 2010 R'000 |
|---|---|---|---|---|---|
| **Issued share capital - ordinary shares** | 6 | 24 932 | 24 767 | 24 932 | 24 767 |
| Balance at beginning of year | | 24 767 | 24 593 | 24 767 | 24 593 |
| Share options exercised | | 165 | 174 | 165 | 174 |
| **Share premium - ordinary shares** | 7 | 1 262 481 | 1 253 568 | 1 262 481 | 1 253 568 |
| Balance at beginning of year | | 1 253 568 | 1 244 072 | 1 253 568 | 1 244 072 |
| Share premium arising from share options exercised | | 8 913 | 9 496 | 8 913 | 9 496 |
| **Equity-settled share-based payment reserve** | 8 | 31 759 | 24 391 | 31 759 | 24 391 |
| Balance at beginning of year | | 24 391 | 22 109 | 24 391 | 22 109 |
| Share based payment expensed during the year | | 7 368 | 2 282 | 7 368 | 2 282 |
| **Retained earnings** | | 1 339 496 | 1 272 279 | (19 815) | 45 135 |
| Balance at beginning of year | | 1 272 279 | 1 042 762 | 45 135 | (25 151) |
| Profit/(loss) and total comprehensive income for the year | | 116 750 | 278 704 | (15 417) | 119 473 |
| Ordinary dividend paid | | (49 533)** | (49 187)* | (49 533)** | (49 187)* |
| Total equity at end of year | | 2 658 668 | 2 575 005 | 1 299 357 | 1 347 861 |

* *Approved by the Board on 26 February 2010*

** *Approved by the Board on 25 February 2011*

# Statements of cash flows

for the year ended 31 December 2011

| | Notes | Group 2011 R'000 | Group 2010 R'000 | Company 2011 R'000 | Company 2010 R'000 |
|---|---|---|---|---|---|
| **Cash flows from operating activities** | | | | | |
| Cash generated from/(utilised in) operating activities | 19 | 344 080 | 294 534 | (970) | 128 009 |
| Interest paid | | (29 186)** | (33 853) | (835)** | (1) |
| Interest received | | 10 383* | 8 856 | 4 104* | 5 882 |
| Profit on disposal of property, plant and equipment | | – | (13 275)[a] | – | – |
| Taxation paid | 19.2 | (30 157) | (23 715) | (158) | – |
| **Net cash from operating activities** | | 295 120 | 232 547[a] | 2 141 | 133 890 |
| **Cash flows from investing activities** | | | | | |
| Advance/(repayment) of subsidiary loan account | | – | – | 77 302 | (148 621) |
| Insurance proceeds on disposal of property, plant and equipment | | – | 13 275[a] | – | – |
| Acquisition of property, plant and equipment | | | | | |
| – sustaining[b] | | (173 603) | (167 126) | (272) | (60) |
| – expansionary[b] | | (230 801) | (103 372) | – | – |
| **Net cash (utilised in)/generated from investing activities** | | (404 404) | (257 223)[a] | 77 030 | (148 681) |
| **Cash flows from financing activities** | | | | | |
| Proceeds from issue of shares | | 9 078 | 9 670 | 9 078 | 9 670 |
| Dividends paid | | (49 533) | (49 187) | (49 533) | (49 187) |
| Secondary tax on companies paid | | (4 511) | (4 045) | (4 511) | (4 045) |
| Loans raised during the year | | – | – | 66 | 61 |
| Repayment of non-current borrowings | | (8) | (50 840) | – | – |
| **Net cash used in financing activities** | | (44 974) | (94 402) | (44 900) | (43 501) |
| **Net (decrease)/increase in cash and cash equivalents** | | (154 258) | (119 078) | 34 271 | (58 292) |
| Cash and cash equivalents at 1 January | | 320 724 | 462 632 | 86 304 | 144 596 |
| Effect of exchange rate fluctuations on cash held during the year | | 53 993 | (22 830) | – | – |
| **Cash and cash equivalents at 31 December** | 19.1 | 220 459 | 320 724 | 120 575 | 86 304 |

* *Amount is net of interest receivables and includes R5m fair value adjustment on interest rate swap.*

** *Amount is net of interest accruals.*

a *The 2010 insurance proceeds on disposal of property, plant and equipment was reclassified from operating activities to financing activities to more appropriately present the nature of this item. The effect on net cash from operating activities is a decrease of R13.3m and the effect on net cash utilised in investing activities is an increase of R13.3m. There is no effect on the cash and cash equivalents balance as previously reported.*

b *Relates to 20.5% of the Venture's total cash outflow. Note 2.1 details the property, plant and equipment owned by Merafe Ferrochrome Proprietary Limited.*

# Significant accounting policies

for the year ended 31 December 2011

## 1.1 Reporting entity

The company is domiciled in the Republic of South Africa. The address of the company's registered office is 68 Wierda Road East, Block B, First Floor, Wierda Valley, Sandton. The consolidated financial statements of the company as at and for the year ended 31 December 2011 comprise the company and its subsidiaries (together referred to as the group and individually as group entities), the group's interest in the Venture and special purpose entities. The group is primarily involved in the mining and beneficiation of chrome ore into ferrochrome. Where reference is made to the "Group" in the accounting policies, it should be interpreted as referring to the "Company" where the context requires, unless otherwise noted.

## 1.2 Basis of preparation

The annual financial statements were authorised for issue by the board on 1 March 2012.

### 1.2.1 Statement of compliance

The consolidated and separate annual financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) and the requirements of the Companies Act of South Africa.

### 1.2.2 Basis of measurement

The consolidated financial statements have been prepared on the historical cost basis, except for the following items which are stated at their fair values:

- derivative financial instrument
- equity-settled share-based payments

### 1.2.3 Functional and presentation currency

The consolidated financial statements are presented in South African Rand, which is the company's functional currency.

All financial information presented in South African Rand has been rounded to the nearest thousand, unless otherwise stated.

### 1.2.4 Use of estimates and judgements

The preparation of the consolidated financial statements in conformity with IFRS requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making the judgements about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods, if the revision affects both current and future periods.

In particular, information about significant areas of estimation, uncertainty and critical judgements in applying accounting policies that have the most significant effect on the amount recognised in the financial statements are described in the following notes:

Note 1.5.3 Measurement of depreciation and amortisation, useful lives and residual values of property, plant and equipment
Note 1.11.2 Share-based payment transactions
Notes 9 and 24 Lease classification
Note 10 Provision for closure and restoration costs
Note 11 Utilisation of tax losses

The accounting policies set out below have been applied consistently to all periods presented in these consolidated and separate financial statements, and have been applied consistently by group entities.

# Significant accounting policies (continued)

for the year ended 31 December 2011

## 1.2 Basis of preparation (continued)

### 1.2.5 Standards and interpretations issued and not yet effective

There are new or revised Accounting Standards and Interpretations in issue that are not yet effective. All Accounting Standards and Interpretations in issue at the time of finalising the financial statements were considered. Other than IFRS 10, Consolidated Financial Statements, IFRS 11, Joint Arrangements and IFRS 12, Disclosure of Interests in other entities which will be effective for the company's 2013 year end, the directors have considered the following Standards and Interpretations and do not expect them to have any signifcant impact on future financial statements:

IFRS 9 – Financial Instruments
IFRS 13 – Fair Value Measurements
IAS 27 – Separate Financial Statements
IAS 28 – Investments in Associates and Joint Ventures

The directors will perform an assessment of IFRS 10, IFRS 11 and IFRS 12 before the effective date of these standards.

## 1.3 Basis of consolidation

### 1.3.1 Subsidiaries

Subsidiaries are entities controlled by the group. Control exists when the company has the power, directly or indirectly, to govern the financial and operating policies of an entity so as to obtain benefits from its activities. In assessing control, potential voting rights that currently are exercisable or convertible are taken into account. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases. In the company financial statements, subsidiaries are stated at cost less accumulated impairment losses. The accounting policies of subsidiaries have been changed where necessary to align them with the policies adopted by the group.

### 1.3.2 Transactions with the Venture

The Venture resulted in Xstrata and Merafe Ferrochrome pooling and sharing their ferrochrome assets. The consolidated financial statements of Merafe include the assets that the group controls and the liabilities that it incurs in the course of pursuing the operation, and the expenses that the group incurs and its share of the income/expenses that it earns from the Venture. Note 22.2 contains details of the group's share of the working capital and EBITDA of the Venture.

Merafe retains full ownership of its assets and any profit or loss on sale of these assets will revert to Merafe. The future economic benefits derived by the pooled assets are managed together with Xstrata and represents a contractual arrangement to realise operational efficiencies by the two parties.

As the Venture Board only manages the pooled operations and the pooled assets, control over the assets remains with the respective parties and therefore Merafe will continue to include its assets and its share of the pooled assets in its financial statements.

Merafe recognises its portion of the different components of the pooled EBITDA, its non-current assets and working capital in line with the contractual agreement and the relevant IFRS standards that governs the recognition, measurement and disclosure of these items. As a consequence, Merafe does not account for the Venture as a joint venture as contemplated by IAS 31 Joint Ventures.

### 1.3.3 Special Purpose Entities

The group has established Special Purpose Entities (SPEs). Refer to Related parties Note 22 for the identity and relationship of the Special Purpose Entities to the group. The group does not have any direct or indirect shareholdings in these entities. An SPE is consolidated if, based on an evaluation of the substance of its relationship with the group and the SPE's risks and rewards, the group concludes that it controls the SPE. SPEs controlled by the group were established under terms that impose strict limitations on the decision making powers of the SPE's management and that result in the group receiving the majority of the benefits related to the SPE's activities, and retaining the majority of the residual or ownership risks related to the SPEs or their assets.

### 1.3.4 Transactions eliminated on consolidation

Intra-group balances and transactions and any unrealised income and expenses arising from intra-group transactions are eliminated in preparing the consolidated financial statements.

## 1.4 Foreign currency

### Foreign currency transactions

Transactions in foreign currencies are translated to the functional currency of the group entities at the exchange rates ruling at the date of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are retranslated to South African rand at the foreign exchange rate ruling at that date. The foreign exchange gain or loss on monetary items is the difference between amortised cost in the functional currency at the beginning of the period, adjusted for the effective interest and payments during the period, and the amortised cost in foreign currency translated at the exchange rate at the end of the period. Non-monetary assets and liabilities denominated in foreign currency that are measured at fair value are translated to rand at the exchange rate at the date that the fair value was determined. Foreign currency differences arising on translation are recognised in profit or loss. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction.

## 1.5 Property, plant and equipment

### 1.5.1 Recognition and measurement

#### *1.5.1.1 Mining assets including mine development costs*

Mining assets, including mine development costs and mine plant facilities, are stated at cost less accumulated depreciation and amortisation and accumulated impairment losses. Costs include pre-production expenditure incurred in the development of the mine and the present value of future decommissioning costs. Development costs incurred to develop new ore bodies, to define mineralisation in existing ore bodies and to establish or expand productive capacity are capitalised. Mine development costs in the ordinary course of maintaining production are expensed as incurred. Initial development and preproduction costs relating to a new ore body are capitalised until the ore body achieves commercial levels of production, at which time the asset is deemed to be available for use and is amortised as set out below.

Mining assets include the following categories as per Note 2:

*(a) Capital work in progress (includes Lion II smelter)*

*(b) Smelters*

Boshoek smelter (includes the Boshoek pelletising plant)
Lion I smelter
Wonderkop smelter (furnaces 5 and 6)

*(c) Mines*

Kroondal mine
Horizon mine
Boshoek mine
Wonderkop mine
Helena and Magareng mines

*(d) Pelletising plants and UG2 plants*

Bokamoso pelletising plant
Mototolo UG2 plant
Lonmin UG2 plants
Kanana UG2 plant

#### *1.5.1.2 Mineral and surface rights*

Mineral and surface rights are stated at cost less accumulated depreciation and accumulated impairment losses. When there is little likelihood of a mineral right being exploited, or the value of mineral rights have diminished below cost, an impairment loss is recognised in profit or loss in the period that such determination is made.

#### *1.5.1.3 Land, non-mining assets and corporate assets*

Land is stated at cost and is not depreciated. Buildings and other non-mining property, plant and equipment are stated at cost less accumulated depreciation and impairment losses. The cost of self constructed assets includes the cost of materials, direct labour, the initial estimate, where relevant, of the costs of dismantling and removing the items, restoring the site on which they are located and, any other costs directly attributable to bringing the assets to a working condition for their intended use.

Where parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items of property, plant and equipment.

Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment and are recognised net within “operating and other income/(expenses)”.

# Significant accounting policies (continued)

for the year ended 31 December 2011

## 1.5 Property, plant and equipment (continued)

### 1.5.1 Recognition and measurement (continued)

#### *1.5.1.4 Exploration and evaluation expenditure*

Exploration and evaluation expenditure relates to costs incurred during the exploration and evaluation of potential mineral reserves and resources and includes costs such as exploratory drilling and sample testing and the costs of pre-feasibility studies. Exploration and evaluation expenditure for each area of interest, other than acquired from the purchase of another mining company, is recognised as an asset provided that one of the following conditions is met:

- Such costs are expected to be recouped in full through successful development and exploration of the area of interest or alternatively, by its sale; or
- Exploration and evaluation activities in the area of interest have not yet reached a stage which permits a reasonable assessment of the existence or otherwise of economically recoverable reserves, and active and significant operations in relation to the area are continuing, or planned for the future. Purchased exploration and evaluation assets are recognised as assets at fair value if purchased as part of a business combination.

An impairment review is performed, either individually or at the cash-generating unit level, when there are indications that the carrying amounts of the assets may exceed their recoverable amounts. To the extent that this occurs, the excess is fully provided against, in the financial year in which this is determined. Exploration and evaluation assets are reassessed on a regular basis and these costs are carried forward provided that at least one of the conditions outlined above is met. Expenditure is transferred to mine development assets or capital work in progress once the work completed to date supports the future development of the property and such development received appropriate approvals.

### 1.5.2 Subsequent costs

The cost of replacing part of an item of property, plant and equipment is recognised in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the group and its cost can be measured reliably. The carrying amount of the replacement part is derecognised. The costs of day-to-day servicing of property, plant and equipment are recognised in profit or loss as incurred.

### 1.5.3 Depreciation and amortisation

Depreciation and amortisation are calculated over the depreciable amount, which is the cost of an asset, or other amount substituted for cost, less its residual value. Management has assessed the residual values of certain of the operating assets as higher than the current carrying values of these assets, and therefore no depreciation has been calculated on these assets.

Depreciation methods, useful lives and residual values are reviewed at each financial year end and adjusted, if appropriate.

#### *1.5.3.1 Mineral and surface rights*

Mineral rights that are being depleted are amortised over their estimated useful lives using the units of production method, based on proven and probable ore reserves. Mineral rights that are not being depleted are not amortised. Mineral rights that have no commercial value are impaired in full.

#### *1.5.3.2 Mining assets including mine development costs*

Mining equipment, structures and plant and equipment are depreciated using the straight-line method over the estimated useful life. The useful life ranges between one and thirty years, depending on the nature of the asset.

## 1.5 Property, plant and equipment (continued)

### 1.5.3 Depreciation and amortisation (continued)

#### *1.5.3.3 Capital work in progress*

Capital work in progress is not depreciated. The net carrying amounts of capital work in progress at each mine property are reviewed for impairment either individually or at the cash-generating unit level when events and changes in circumstances indicate that the carrying amount may not be recoverable. To the extent that these values exceed their recoverable amounts, that excess is fully provided against in the financial year in which this is determined.

#### *1.5.3.4 Land, non-mining assets and corporate assets*

Non-mining equipment, structures and plant and equipment are depreciated using the straight-line method over the estimated useful life. The useful life ranges between one and thirty years depending upon the nature of the asset. Land is not depreciated.

#### *1.5.3.5 Leased assets*

Leases in terms of which the group assumes substantially all the risks and rewards of ownership are classified as finance leases. Upon initial recognition, the leased asset is measured at an amount equal to the lower of its fair value and the present value of minimum lease payments. Subsequent to initial recognition, the asset is accounted for in accordance with the accounting policy applicable to that asset. Lease payments are accounted for as described in accounting policy Note 1.13. Leased assets are depreciated over the shorter of the lease term and their useful lives. The useful life of leased assets is on average 20 years.

Other leases are operating leases and are not capitalised.

## 1.6 Financial instruments

### 1.6.1 Derivative financial instruments

The group considers derivative financial instruments to hedge its foreign currency and interest rate risk exposure. An embedded derivative is recognised on certain sales contracts, refer Note 1.12. Derivatives are recognised initially at fair value and attributable transaction costs are recognised in profit or loss when incurred. Subsequent to initial recognition, non-trading derivatives that are not designated in a qualifying hedge relationship are measured at fair value and any changes therein are recognised immediately in profit or loss.

#### *1.6.1.1 Derivative financial instruments*

On initial designation of the derivative as the hedging instrument, the group formally documents the relationship between the hedging instrument and hedged item, including the risk management objectives and strategy in undertaking the hedge transaction and the hedged risk, together with the methods that will be used to assess the effectiveness of the hedging relationship. The group makes an assessment, both at the inception of the hedge relationship as well as on an ongoing basis, of whether the hedging instruments are expected to be 'highly effective' in offsetting the changes in the fair value or cash flows of the respective hedged items attributable to the hedged risk, and whether the actual results of each hedge are within a range of 80 – 125%. For a cash flow hedge of a forecast transaction, the transaction should be highly probable to occur and should present an exposure to variations in cash flows that could ultimately affect reported profit or loss. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are accounted in profit or loss.

# Significant accounting policies (continued)

for the year ended 31 December 2011

## 1.6 Financial instruments (continued)

### 1.6.1 Derivative financial instruments (continued)

#### *1.6.1.2 Cash flow hedges*

When a derivative is designated as the hedging instrument in a hedge of the variability in cash flows attributable to a particular risk associated with a recognised asset or liability or a highly probable forecast transaction that could affect profit or loss, the effective portion of changes in the fair value of the derivative is recognised in other comprehensive income and presented in the hedging reserve in equity. Any ineffective portion of changes in the fair value of the derivative is recognised immediately in profit or loss.

When the hedge item is a non-financial asset, the amount accumulated in equity is included in the carrying amount of the asset when the asset is recognised. In other cases the amount accumulated in equity is reclassified to profit or loss in the same period that the hedged item affects profit or loss. If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated or exercised, or the designation is revoked, then hedge accounting is discontinued prospectively. If the forecast transaction is no longer expected to occur, then the balance in equity is reclassified in profit or loss.

### 1.6.2 Non-derivative financial assets

The group initially recognises non derivative financial assets on the date that they are originated and at fair value plus any directly attributable transaction costs. All other financial assets are recognised initially on the date at which the group becomes a party to the contractual provisions of the instrument. The group derecognises a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows on the financial asset in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred. Any interest in transferred financial assets that is created or retained by the group is recognised as a separate asset or liability. Debtors that are discounted via the debtors discounting agreement are accounted for as a reduction in trade and other receivables. The debtors are discounted with recourse to the Venture.

Financial assets and financial liabilities are offset and the net amount presented in the statement of financial position when, and only when, the group has a legal right to offset the amounts and intends either to settle on a net basis or to realise the asset and settle the liability simultaneously.

The group has the following non-derivative financial assets:

- loans and receivables
- cash and cash equivalents

*Loans and receivables*

Trade and other receivables are financial assets with fixed or determinable payments that are not quoted in an active market. Investment in equity and debt securities are financial assets that are not quoted in an active market. Subsequent to initial recognition, these non-derivative financial assets are measured at amortised cost using the effective interest method, less any impairment losses. Loans and receivables includes trade and other receivables.

*Cash and cash equivalents*

Cash and cash equivalents comprise cash balances and call deposits with original maturities of three months or less. Bank overdrafts that are repayable on demand and form an integral part of the group's cash management are included as a component of cash and cash equivalents for the purpose of the statement of cash flows. Cash and cash equivalents are subsequently measured at amortised cost using the effective interest method.

## 1.6 Financial instruments (continued)

### 1.6.3 Non-derivative financial liabilities

Financial liabilities are recognised initially on the trade date at which the group becomes a party to the contractual provisions of the instrument.

The group derecognises a financial liability when its contractual obligations are discharged or cancelled or expire.

The group has the following non-derivative financial liabilities: loans and borrowings, bank overdrafts and trade and other payables.

Such financial liabilities are recognised initially at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, these non-derivative financial liabilities are measured at amortised cost using the effective interest method.

## 1.7 Share capital

Ordinary shares

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of ordinary shares and share options are recognised as a deduction from equity, net of any tax effects.

## 1.8 Provisions

A provision is recognised if, as a result of a past event, the group has a present legal or constructive obligation that can be estimated reliably and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognised in profit or loss.

*Provision for closure and restoration costs*

Long-term environmental obligations are based on the group's environmental management plan, in compliance with current environmental and regulatory requirements.

Full provision is made based on the net present value of the estimated cost of restoring the environmental disturbance that has occurred up to the reporting date. The related costs are capitalised to mining assets and are amortised over the useful lives of the related assets. Annual movements in the provision relating to the change in the net present value of the provision due to changes in estimated cash flows or discount rates are adjusted against the costs capitalised to mining assets. Ongoing rehabilitaion costs are expensed in profit or loss.

Annual movements in the provision relating to passage of time, i.e. unwinding of discount, are expensed.

Cost estimates are not reduced by the potential proceeds from the sale of assets or from plant clean-up at closure.

Guarantees have been provided by the Venture to the Department of Mineral Resources in respect of the liability for closure and restoration costs. These guarantees are in the name of Xstrata and relate to the Venture, and are disclosed in Note 20.2. The guarantees are not recognised as liabilities in the annual financial statements.

## 1.9 Inventories

Inventories are measured at the lower of cost and net realisable value. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses.

Cost is determined on the following basis:

- Finished goods on hand are valued using the weighted average cost. Cost includes expenditure incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing location and condition. Cost includes an appropriate share of production overheads based on normal operating capacity and directly attributable administration costs.
- Consumable stores and raw materials are valued at weighted average cost and include expenditure incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing location and condition.

# Significant accounting policies (continued)

for the year ended 31 December 2011

## 1.10 Impairments

### 1.10.1 Financial assets

A financial asset not classified at fair value through profit or loss is assessed at each reporting date to determine whether there is any objective evidence that it is impaired. A financial asset is considered to be impaired if objective evidence indicates that one or more events have had a negative effect on the estimated future cash flows of that asset. Objective evidence that a financial asset or group of assets is impaired includes observable data that comes to the attention of the holder of the asset about loss events.

An impairment loss in respect of a financial asset measured at amortised cost is calculated as the difference between its carrying amount and the present value of the estimated future cash flows discounted at the original effective interest rate.

Individually significant financial assets are tested for impairment on an individual basis. The remaining financial assets are assessed collectively in groups that share similar credit risk characteristics.

All impairment losses are recognised in profit or loss.

An impairment loss is reversed if the reversal can be related objectively to an event occurring after the impairment loss was recognised. For financial assets measured at amortised cost, the reversal is recognised in profit or loss.

### 1.10.2 Non-financial assets

The carrying amount of the group's non-financial assets, other than inventories and deferred tax assets, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the asset's recoverable amount is estimated.

The recoverable amount of an asset or cash-generating unit is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to that asset. For the purpose of impairment testing, assets are grouped together into the smallest group of assets that generate cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (cash-generating unit).

An impairment loss is recognised if the carrying amount of the asset or its cash-generating unit exceeds its estimated recoverable amount. Impairment losses are recognised in profit or loss. Impairment losses recognised in respect of cash-generating units are allocated first to reduce the carrying amount of any goodwill allocated to cash-generating units (group of units) and then, to reduce the carrying amount of the other assets in the unit (group of units) on a pro rata basis.

Impairment losses recognised in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined net of depreciation or amortisation, if no impairment loss has been recognised. Impairment losses on goodwill are not reversed.

## 1.11 Employee benefits

### 1.11.1 Short-term benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided. A liability is recognised for the amount expected to be paid under short-term cash bonus plans and accumulated leave if the group has a present legal or constructive obligation to pay as a result of past services provided by the employee and the obligation can be estimated reliably.

## 1.11 Employee benefits (continued)

### 1.11.1 Short-term benefits (continued)

*Defined contribution plans*

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions into a separate entity and will have no legal or constructive obligation to pay further amounts. Obligations for contributions to defined contribution pension plans are recognised as an employee benefit expense in profit or loss when they are due. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in future payments is available.

Defined contribution plans are funded through monthly contributions to the Provident Fund, which is governed by the Pension Fund Act of 1956. All employees of the group belong to the Provident Fund. The group's liability is limited to its annually determined contributions.

The group provides medical cover to current employees through various funds. The medical plans are funded through monthly contributions to the medical aid fund. The group's liability is limited to its annually determined contributions.

### 1.11.2 Share-based payment transactions

The share incentive scheme allows qualifying directors and employees to be granted share options and share grants. Share options and share grants may be granted to all employees of the company and any of its subsidiaries at the discretion of the directors, subject to the limitations imposed by the share option and share grant scheme. The fair value of share options and share grants are measured at grant date and spread over the period during which the employees become unconditionally entitled to the share grants and share options.The fair value of the share options and share grants are measured using the Black-Scholes-Merton model, taking into account the terms and conditions upon which the share options and share grants were granted. The amount recognised as an expense is adjusted to reflect the actual number of share options that vest except where forfeiture is due only to share prices not achieving the threshold for vesting. Grant date fair value is recognised as an employee expense with corresponding increase in equity over the vesting period which is taken into account in determining the grant date fair value.

Share-based payment arrangements in which the group received goods or services as consideration for its own equity instruments are accounted for as equity-settled share-based payment transactions.

## 1.12 Revenue

### 1.12.1 Sale of goods

Revenue comprises sales of ferrochrome and chrome ore at invoiced value, net of value added tax, trade discounts and intra-group sales. Revenue is measured at the fair value of the consideration received or receivable, net of returns and allowances, trade discounts and volume rebates.

Revenue is recognised when all the following conditions are met:

(a) The group has transferred to the buyer the significant risks and rewards of ownership of the goods.

(b) The group retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold.

(c) The amount of revenue can be measured reliably.

(d) It is probable that the economic benefits associated with the transaction will flow to the group.

(e) The costs incurred or to be incurred in respect of the transaction can be measured reliably.

# Significant accounting policies (continued)

for the year ended 31 December 2011

## 1.12 Revenue (continued)

### 1.12.1 Sale of goods (continued)

Determining whether the group is acting as an agent or principal is based on an evaluation of the risks and responsibilities taken by the group, including inventory risk and responsibility for the delivery of goods or services.

*Ferrochrome and chrome ore marketing arrangement with Glencore International AG*

Glencore is acting as agent and the group is acting as principal for ferrochrome and chrome ore sales.

*Distribution arrangements with Glencore Limited, Glencore Canada Inc. and Mitsui and Co Europe Plc (the distribution agents)*

The group is acting as principal for the ferrochrome sales to the distribution agents as the risks and rewards of ownership pass from the group to the distribution agents.

The distribution agents are acting as principal for subsequent sales to stainless steel customers.

The agreements contain a price adjustment feature whereby the ferrochrome is provisionally invoiced to the distribution agents at a price that is linked to the ruling benchmark price when the risks and rewards pass to the distribution agents. The agreements provide for the final price to be determined based on the price the distribution agent receives for the ferrochrome via the ultimate sale to the stainless steel customer.

The price adjustment feature is recognised as an embedded derivative as it is a component of a hybrid contract that also includes a non-derivative sales host contract with the effect that some of the cash flows of the combined contract vary in a way similar to a stand-alone derivative. The embedded derivative causes the cash flows that would be required by the contract to be modified according to the ferrochrome price.

The embedded derivative is recognised at fair value in 'trade and other receivables' and is included in the statement of financial position.

### 1.12.2 Management fees

Revenue from management fees is recognised at the fair value of the consideration received or receivable. Revenue is recognised in the accounting periods in which the services are rendered in accordance with the stages of completion.

## 1.13 Lease payments

### 1.13.1 Operating lease payments

Payments made under operating leases are recognised in profit or loss on a straight-line basis over the term of the lease.

### 1.13.2 Finance lease payments

Minimum lease payments are apportioned between the finance expense and the reduction of the outstanding liability. The finance expense is allocated to each period during the lease term so as to produce a consistent periodic rate of interest in the remaining balance of the liability.

## 1.14 Finance income and expenses

### 1.14.1 Finance income

Finance income comprises interest income on funds invested and positive changes in the fair value of financial assets at fair value through profit or loss. Interest income is recognised as it accrues in profit or loss, using the effective interest method.

### 1.14.2 Finance expenses

Finance expenses comprise interest expense on borrowings, interest on tax related items, dividends on preference shares classified as liabilities using the effective interest method and negative changes in the fair value of financial assets at fair value recognised in profit or loss.

## 1.14 Finance income and expenses (continued)

### 1.14.2 Finance expenses (continued)

Borrowing costs directly related to the financing of a qualifying capital project under construction are capitalised to the project cost during construction, until such time as the related asset is substantially ready for its intended use, i.e. when it is capable of commercial production. Where funds are borrowed specifically to finance a project, the amount capitalised represents the actual borrowing costs incurred. Where surplus funds are available in the short term from money borrowed specifically to finance a project, the income generated from such short-term investments is also capitalised and deducted from the total capitalised borrowing costs. Where the funds used to finance a project form part of general borrowings, the amount capitalised is calculated using a weighted average rate applicable to the relevant general borrowings of the group during the period.

## 1.15 Income tax

Income tax expense comprises current and deferred tax. Income tax is recognised in the profit or loss except to the extent that it relates to items recognised directly in equity, or in other comprehensive income, in which case it is recognised in equity or in other comprehensive income.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years. The current tax rate is 28%.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognised for the following temporary differences: goodwill not deductible for tax purposes, the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit, and differences relating to investments in subsidiaries to the extent that it is probable that they will not reverse in the foreseeable future. Deferred tax is measured at the tax rates that are expected to be applied to the temporary differences when they reverse, based on laws that have been enacted or substantively enacted by the reporting date. Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets and they relate to income taxes levied by the same tax authorities on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realised simultaneously.

Deferred tax assets, including deferred tax assets relating to the carry forward of unutilised tax losses and/or unutilised capital allowances are recognised only to the extent that it is probable that future taxable profits will be available against which the asset can be utilised. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

### Secondary tax on companies (STC)

Additional income taxes that arise from the distribution of dividends are recognised at the same time as the liability to pay the related dividend. STC is provided for at a rate of 10% on the amount by which dividends declared by the Company exceed dividends received. STC is recognised as part of the current tax charge in profit or loss, when the related dividend is declared.

## 1.16 Segment reporting

An operating segment is a component of the Group that engages in business activities from which it may earn revenues and incurs expenses. The Group has one reportable segment being the mining and beneficiation of chrome ore into ferrochrome. Internal management accounts are prepared monthly on the basis of one reportable segment which is reviewed monthly by the Chief Financial Officer and Chief Executive Officer (Chief Operating Decision Maker).

Ferrochrome and chrome ore are the products produced by the Venture. Most of the product produced is used in the manufacturing of stainless steel. Refer to Note 14 for geographical areas of ferrochrome and chrome ore sales and information on customers that individually comprise more than ten percent of total ferrochrome and chrome ore sales.

# Significant accounting policies (continued)

for the year ended 31 December 2011

### 1.17 Earnings per share

The group presents basic and diluted earnings per share (EPS) data for its ordinary shares. Basic EPS is calculated by dividing the profit or loss attributable to ordinary shareholders of the company by the weighted average number of ordinary shares outstanding during the period. Diluted EPS is determined by adjusting the profit or loss attributable to ordinary shareholders and the weighted average number of ordinary shares outstanding for the effects of all dilutive potential ordinary shares, which comprise share options and share grants granted to employees and a future equity-settled share-based payment set out in Note 18.3. Headline EPS is calculated by dividing the headline earnings by the weighted average number of ordinary shares in issue/outstanding during the period. Diluted headline EPS is calculated by dividing headline earnings by the weighted average number of ordinary shares outstanding adjusted for the effects of all dilutive potential ordinary shares which comprise share options and share grants granted to employees and future equity-settled share-based payments set out in Note 18.4.

### 1.18 Dividend distributions

Dividend distributions to the company's shareholders are recognised as a liability in the group's and company's financial statements in the period in which the dividends are approved by the board of directors. Dividends declared after the reporting period are disclosed in the notes to the financial statements and are not recognised in the current financial statements. The cash flows for dividends are included in financing activities.

### 1.19 Determination of fair values

A number of the group accounting policies and disclosures require the determination of fair value, for both financial and non-financial assets and liabilities. Fair values have been determined for measurement and/or disclosure purposes based on the following methods. Where applicable, further information about the assumptions made in determining fair values is disclosed in the notes specific to that asset or liability. The carrying values of financial assets and liabilities as reflected in the statement of financial position are a reasonable approximation of their fair values.

#### 1.19.1 Trade and other receivables

The fair value of trade and other receivables is estimated as the present value of future cash flows, discounted at the market rate of interest at the reporting date.

#### 1.19.2 Derivatives

The fair value of the interest rate swap is based on broker quotes using discounting estimated future cash flows based on the term and maturity of the contract and market interest rates for a similar instrument at the measurement date.

#### 1.19.3 Non-derivative financial liabilities

Fair value, which is determined for disclosure purposes, is calculated based on the present value of future principal and interest cash flows, discounted at the market rate of interest at the reporting date. For finance leases the market rate of interest is determined by reference to similar lease agreements.

#### 1.19.4 Share-based payment transactions

The fair value of employee share options and share grants is measured using the Black-Scholes-Merton model. Measurement inputs include share price on measurement date, exercise price of the instrument, expected volatility (based on weighted average historic volatility adjusted for changes expected due to publicly available information), weighted average expected life of the instruments (based on historical experience and general option holder behaviour), expected dividends, and the risk-free interest rate (based on government bonds). Service and non-market performance conditions attached to the transactions are not taken into account in determining fair value. Refer to Note 8 for details regarding the assumptions used in the valuation model.

### 1.20 Mining royalty

The mining royalty was effective from 1 March 2010 and requires the payment of a royalty for the benefit of the National Revenue Fund, in respect of the transfer of a mineral resource. The mining royalty is payable on chrome ore in lumps, chips and fines as listed in schedule 2 of the Mineral and Petroleum Resources Royalty Act (the Act).

Chrome ore in lumps, chips and fines is an unrefined mineral resource and therefore the mining royalty is payable on 'gross sales' as defined and is calculated in accordance with the unrefined mineral resource formula as detailed in the Act.

Gross sales is primarily calculated using an arm's length transfer price of chrome ore calculated by transfer pricing experts using guidelines developed by the Organisation for Economic Corporation and Development.

The mining royalty is recognised in the statement of consolidated and separate comprehensive income and is included in operating and other income/(expenses).

## 2.1 Property, plant and equipment – 2011

| | At the beginning of year – **2011** | | | Movements during the year – **2011** | | | | | | At the end of year – **2011** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cost | Accumulated depreciation and impairment | Carrying value | Additions | Disposals – Cost | Disposals – Accumulated depreciation | Depreciation and impairment charge for the year | Reclass-ifications – Cost | Reclass-ifications – Accumulated depreciation | Cost | Accumulated depreciation and impairment | Carrying value |
| | R'000 | R'000 | R'000 | R'000 | R'000 | R'000 | R'000 | R'000 | R'000 | R'000 | R'000 | R'000 |
| **Group 2011** | | | | | | | | | | | | |
| Land, mineral and surface rights | 137 606 | (33 799) | 103 807 | – | – | – | (5 808) | – | – | 137 606 | (39 607) | 97 999 |
| Boshoek smelter | 1 003 091 | (93 295) | 909 796 | 46 131 | (9 801) | 9 801 | (42 262) | (171) | (3 273) | 1 039 250 | (129 029) | 910 221 |
| Horizon mine, Boshoek mine, Kroondal mine, Kanana UG2 plant and Lonmin UG2 plants | 263 181 | (42 793) | 220 388 | 129 344 | (159 200) | 3 390 | 9 452 | (389) | – | 232 936 | (29 951) | 202 985 |
| Wonderkop smelter | 257 546 | (39 849) | 217 697 | 16 877 | (2 785) | 2 785 | (54 527) | 3 329 | – | 274 967 | (91 591) | 183 376 |
| Wonderkop mine | 29 061 | (8 828) | 20 233 | – | (1 283) | 1 283 | (2 848) | – | – | 27 778 | (10 393) | 17 385 |
| Lion I smelter | 367 664 | (46 211) | 321 453 | 19 669 | (6 743) | 6 743 | (20 858) | 504 | – | 381 094 | (60 326) | 320 768 |
| Helena mine, Magareng mine and Mototolo UG2 plant | 110 707 | (17 603) | 93 104 | 51 614 | (5 772) | 991 | (8 165) | – | – | 156 549 | (24 777) | 131 772 |
| Bokamoso pelletising plant | 195 243 | (21 202) | 174 041 | 8 638 | (6 187) | 6 187 | (14 257) | – | – | 197 694 | (29 272) | 168 422 |
| Corporate assets | 1 668 | (1 422) | 246 | 272 | – | – | (167) | – | – | 1 940 | (1 589) | 351 |
| Capital work in progress | 131 835 | – | 131 835 | 207 654 | – | – | – | – | – | 339 489 | – | 339 489 |
| Total | 2 497 602 | (305 002) | 2 192 600 | 480 199 | (191 771) | 31 180 | (139 440)* | 3 273 | (3 273) | 2 789 303 | (416 535) | 2 372 768 |
| **Company 2011** | | | | | | | | | | | | |
| Land, mineral and surface rights | 4 023 | (206) | 3 817 | – | – | – | (270) | – | – | 4 023 | (476) | 3 547 |
| Corporate assets | 1 668 | (1 422) | 246 | 272 | – | – | (167) | – | – | 1 940 | (1 589) | 351 |
| Total | 5 691 | (1 628) | 4 063 | 272 | – | – | (437) | – | – | 5 963 | (2 065) | 3 898 |

* *R153m is recognised in the statement of comprehensive income which includes R41m impairments. The impairment relates to the North block making plant at the Wonderkop smelter that was impaired as it will be replaced by the new Tswelopele pelletiser that will be commissioned in 2012. R14m is capitalised to inventory.*

The property, plant and equipment is encumbered by a loan more fully described in Note 9.2. Borrowing costs of R2.5 m were capitalised in the current year.

## 2.1 Property, plant and equipment – 2010

| | At the beginning of year – **2010** | | | Movements during the year – **2010** | | | At the end of year – **2010** | | |
|---|---|---|---|---|---|---|---|---|---|
| | Cost | Accumulated depreciation | Carrying value | Additions | Disposals (cost and accumulated depreciation) | Depreciation and impairment charge for the year | Cost | Accumulated depreciation and impairment | Carrying value |
| | R'000 | R'000 | R'000 | R'000 | R'000 | R'000 | R'000 | R'000 | R'000 |
| **Group 2010** | | | | | | | | | |
| Land, mineral and surface rights | 137 606 | (28 774) | 108 832 | – | – | (5 025) | 137 606 | (33 799) | 103 807 |
| Boshoek smelter | 898 405 | (63 657) | 834 748 | 109 689 | (5 003) | (34 641) | 1 003 091 | (93 295) | 909 796 |
| Horizon mine, Boshoek mine, Kroondal mine, Kanana UG2 plant and Lonmin UG2 plants | 147 593 | (18 724) | 128 869 | 115 859 | (271) | (24 340) | 263 181 | (42 793) | 220 388 |
| Wonderkop smelter | 243 750 | (30 231) | 213 519 | 14 014 | (218) | (9 836) | 257 546 | (39 849) | 217 697 |
| Wonderkop mine | 29 186 | (6 639) | 22 547 | 1 404 | (1 529) | (3 718) | 29 061 | (8 828) | 20 233 |
| Lion I smelter | 356 438 | (33 661) | 322 777 | 19 542 | (8 316) | (20 866) | 367 664 | (46 211) | 321 453 |
| Helena mine, Magareng mine and Mototolo UG2 plant | 85 882 | (10 427) | 75 455 | 24 904 | (79) | (7 255) | 110 707 | (17 603) | 93 104 |
| Bokamoso pelletising plant | 187 636 | (14 394) | 173 242 | 10 834 | (3 227) | (10 035) | 195 243 | (21 202) | 174 041 |
| Corporate assets | 1 608 | (1 214) | 394 | 60 | – | (208) | 1 668 | (1 422) | 246 |
| Capital work in progress | 69 081 | – | 69 081 | 62 754 | – | – | 131 835 | – | 131 835 |
| Total | 2 157 185 | (207 721) | 1 949 464 | 359 060 | (18 643) | (115 924)* | 2 497 602 | (305 002) | 2 192 600 |
| **Company 2010** | | | | | | | | | |
| Land, mineral and surface rights | 4 023 | – | 4 023 | – | – | (206) | 4 023 | (206) | 3 817 |
| Corporate assets | 1 608 | (1 214) | 394 | 60 | – | (208) | 1 668 | (1 422) | 246 |
| Total | 5 631 | (1 214) | 4 417 | 60 | – | (414) | 5 691 | (1 628) | 4 063 |

* *R114m is recognised in the statement of comprehensive income which comprises R113.5m depreciation and R0.2m impairments. R2.2m is capitalised to inventory.*

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

| | Group | | Company | |
|---|---|---|---|---|
| | **2011** R'000 | **2010** R'000 | **2011** R'000 | **2010** R'000 |
| **2. Property, plant and equipment (continued)** | | | | |
| 2.2 Finance lease assets | | | | |
| The following finance lease assets where Merafe Ferrochrome is the lessee are included in the Boshoek and Lion ferrochrome smelters: | | | | |
| **Plant and equipment** | | | | |
| Cost | 45 962 | 45 962 | – | – |
| Accumulated depreciation | (8 922) | (7 062) | – | – |
| Carrying value at end of year | 37 040 | 38 900 | – | – |

*Note: The cost and accumulated depreciation relates to 100% of the leased assets as recognised in the Venture's accounting records. Merafe's portion of the carrying value is R19.5m (31 December 2010: R20.6m).*

| | | | | |
|---|---|---|---|---|
| **3. Investment in subsidiaries** | | | | |
| Wholly-owned subsidiaries | | | | |
| *Southwits Mining Company Proprietary Limited* | | | – | (102) |
| – Shares at cost | | | – | * |
| – Loan from subsidiary | | | – | (102) |
| *Merafe Chrome & Alloys Proprietary Limited* | | | 1 187 655 | 1 265 059 |
| – Shares at cost | | | * | * |
| – Loan to subsidiary | | | 1 187 655 | 1 265 059 |
| *Merafe Manganese Proprietary Limited* | | | | |
| – Shares at cost | | | * | * |
| – Loan from subsidiary | | | * | * |
| *Merafe Coal Proprietary Limited* | | | | |
| – Shares at cost | | | * | * |
| – Loan from subsidiary | | | * | * |
| *South African Chrome & Alloys Proprietary Limited* | | | | |
| – Shares at cost | | | * | * |
| – Loan from subsidiary | | | * | * |
| *South African Ferrochrome & Mining Proprietary Limited* | | | | |
| – Shares at cost | | | * | * |
| – Loan from subsidiary | | | * | * |
| Total wholly-owned subsidiaries | | | 1 187 655 | 1 264 957 |

* *Amount is less than R1 000*

The above loans are unsecured, have no fixed repayment terms, but by intent are of a long-term nature and are interest free. The wholly-owned subsidiaries are incorporated in the Republic of South Africa.

| | Group | | Company | |
|---|---|---|---|---|
| | 2011 R'000 | 2010 R'000 | 2011 R'000 | 2010 R'000 |
| **4. Inventories** | | | | |
| Consumables stores | 63 353 | 58 950 | – | – |
| Raw materials | 370 463 | 323 661 | – | – |
| Finished goods | 632 116 | 482 640 | – | – |
| | 1 065 932 | 865 251 | – | – |
| **5. Trade and other receivables** | | | | |
| Net trade receivables | 188 129 | 359 423 | | |
| Trade receivables | 356 966 | 538 092 | – | – |
| Trade receivables sold | (168 837) | (178 669) | – | – |
| Prepayments | 7 457 | 3 924 | 164 | 129 |
| Embedded derivative recognised on sales contracts | (9 201) | (6 067) | – | – |
| Project Tswelopele derivative | – | 700 | – | – |
| Other receivables | 76 594 | 77 534 | 1 279 | 28 |
| Receivable – Merafe Ferrochrome and Mining | – | – | 32 511 | – |
| | 262 979 | 435 514 | 33 954 | 157 |

The group's exposure to credit and currency risks and impairment losses related to trade and other receivables are disclosed in Note 20. Trade receivables relating to local sales have an average payment term of 60 days and are non-interest bearing. Trade receivables relating to foreign sales have an average payment term of 90 days and bear interest at US$ LIBOR (London Interbank Offered Rate) + 1.5% on balances that are overdue.

| | Group | |
|---|---|---|
| | 2011 R'000 | 2010 R'000 |
| Trade receivables per sales region | | |
| Africa | 46 633 | 37 666 |
| Asia | 134 024 | 208 517 |
| America | 62 794 | 94 034 |
| Europe | 113 515 | 197 875 |
| | 356 966 | 538 092 |

| | Group | | Company | |
|---|---|---|---|---|
| | 2011 R'000 | 2010 R'000 | 2011 R'000 | 2010 R'000 |
| **6. Share capital** | | | | |
| Authorised – 3 500 000 000 ordinary shares of 1 cent each | 35 000 | 35 000 | 35 000 | 35 000 |
| Issued – 2 493 221 394 ordinary shares of 1 cent each | | | | |
| 31 December 2010 – 2 476 656 043 ordinary shares of 1 cent each | | | | |
| Issued share capital at beginning of year | 24 767 | 24 593 | 24 767 | 24 593 |
| Share options exercised | 165 | 174 | 165 | 174 |
| Issued share capital at end of year | 24 932 | 24 767 | 24 932 | 24 767 |

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

| | Group | | Company | |
|---|---|---|---|---|
| | 2011 R'000 | 2010 R'000 | 2011 R'000 | 2010 R'000 |
| **7. Share premium** | | | | |
| Balance at beginning of year | 1 253 568 | 1 244 072 | 1 253 568 | 1 244 072 |
| Arising from share options exercised | 8 956 | 9 534 | 8 956 | 9 534 |
| Share issue expenses arising from share options exercised | (43) | (38) | (43) | (38) |
| Balance at end of year | 1 262 481 | 1 253 568 | 1 262 481 | 1 253 568 |

10% of the authorised but unissued share capital is under the control of the directors, subject to the Companies Act and the JSE Limited Listings Requirements, until the next annual general meeting. Note 8 sets out the details of the share option scheme.

## 8. Equity-settled share-based payment reserve

### 8.1 Share option schemes

On 14 December 1999 a share incentive scheme was approved by shareholders as an incentive to employees (including executive directors) of the company and its subsidiaries to identify themselves more closely with the activities of the company and to promote its continued growth by giving them an opportunity of acquiring shares therein. Management has applied the provisions of IFRS 2: Share-based payments in accounting and disclosing for all share options granted, except for share options granted before 7 November 2002, or share options granted after this date, but which had vested prior to 1 January 2005.

On 13 April 2010, a new incentive scheme was approved by shareholders. Share options and share grants were issued during 2010 and 2011 under the new incentive scheme. Refer to note 8.2 for details regarding the share grants.

| | Group | | Company | |
|---|---|---|---|---|
| | 2011 R'000 | 2010 R'000 | 2011 R'000 | 2010 R'000 |
| **Reconciliation of share-based payment** | | | | |
| Balance at begining of year | 24 391 | 22 109 | 24 391 | 22 109 |
| Expensed during the current year | 7 368 | 2 282 | 7 368 | 2 282 |
| Balance at end of year | 31 759 | 24 391 | 31 759 | 24 391 |

## 8. Equity-settled share-based payment reserve (continued)

### 8.1 Share option schemes (contined)

The terms and conditions of the grants are listed below and all options are settled by physical delivery of shares against receipt of payment of the option price:

| Grant date/employees entitled | Number of options | Vesting conditions |
|---|---|---|
| Options granted prior to 7 November 2002 | 1 450 000 | One third per year over the period 31 December 2004 to 31 December 2006 |
| Options granted to senior employees on 1 February 2003 | 166 667 | One third per year over the period 30 June 2006 to 30 June 2008 |
| Options granted to senior employees on 1 August 2003 | 833 333 | One third per year over the period 31 December 2006 to 31 December 2008 |
| Options granted to key management on 1 December 2005 | 4 481 138 | One third per year over the period 31 December 2008 to 31 December 2010 |
| Options granted to key management on 30 June 2006 | 1 884 216 | One third per year over the period 30 June 2009 to 30 June 2011 |
| Options granted to senior employees on 27 July 2006 | 916 667 | One third per year over the period 30 June 2009 to 30 June 2011 |
| Options granted to key management on 1 March 2008 | 11 368 773 | One third per year over the period 1 March 2011 to 1 March 2013 |
| Options granted to senior employees on 1 March 2008 | 2 983 415 | One third per year over the period 1 March 2011 to 1 March 2013 |
| Options granted to key management on 9 March 2009 | 3 000 000 | One third per year over the period 1 April 2012 to 1 April 2014 |
| Options granted to key management on 1 October 2010 | 2 654 771 | One third per year over the period 1 October 2013 to 1 October 2015 |
| Options granted to key management on 1 October 2010 | 2 654 771 | One third per year over the period 1 October 2014 to 1 October 2016 |
| | 32 393 751 | |

The options lapse after 10 years if not exercised, while employed within the group. The options are forfeited when an employee resigns from the group and has not exercised his/her options. In the event of an employee leaving the group for a reason approved by the directors or in the event of the employee's death, the employee or his/her estate has 12 and 24 months respectively to exercise and/or implement options granted to that employee.

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

## 8. Equity-settled share-based payment reserve (continued)

### 8.1 Share option schemes (contined)

The number and weighted average exercise price of share options are as follows:

| | 2011 | | 2010 | |
|---|---|---|---|---|
| | Weighted average exercise price in cents per share | Number of options '000 | Weighted average exercise price in cents per share | Number of options '000 |
| Outstanding balance at beginning of year | 116 | 48 959 | 105 | 72 041 |
| Options granted during the year | – | – | 134 | 5 425 |
| Options exercised during the year | 55 | (16 565) | 56 | (17 397) |
| Options forfeited during the year | – | – | 174 | (11 110) |
| Outstanding balance at end of year | 147* | 32 394 | 116* | 48 959 |
| Exercisable at end of year | 202** | 6 171 | 56** | 7 971 |

* *This relates to the weighted average exercise price of all options in issue that have both vested and not vested at year end.*

** *This relates to the weighted average exercise price of all options that have vested at year end*

Share options outstanding at the end of the year have the following exercise price:

| | Company | |
|---|---|---|
| | 2011 '000 | 2010 '000 |
| 45 cents | 1 450 | 1 467 |
| 55 cents | 4 481 | 20 145 |
| 56 cents | 884 | 1 768 |
| 67 cents | 1 917 | 1 917 |
| 69 cents | 3 000 | 3 000 |
| 73 cents | 833 | 833 |
| 98 cents | 167 | 167 |
| 136 cents | 5 310 | 5 310 |
| 227 cents | 14 352 | 14 352 |
| | 32 394 | 48 959 |

## 8. Equity-settled share-based payment reserve (continued)

### 8.1 Share option schemes (contined)

Share options outstanding at the end of the year have the following exercise dates:

| | Company | |
|---|---|---|
| | **2011** '000 | **2010** '000 |
| 31 December 2004 | 450 | 450 |
| 31 December 2005 | 500 | 500 |
| 31 December 2006 | 500 | 500 |
| 31 December 2007 | – | 17 |
| 30 June 2008 | 167 | 167 |
| 31 December 2008 | 833 | 7 549 |
| 30 June 2009 | 295 | 589 |
| 31 December 2009 | 1 706 | 7 298 |
| 30 June 2010 | 295 | 589 |
| 31 December 2010 | 4 024 | 7 382 |
| 1 March 2011 | 4 784 | 4 784 |
| 30 June 2011 | 295 | 589 |
| 31 December 2011 | 667 | 667 |
| 1 March 2012 | 4 784 | 4 784 |
| 1 April 2012 | 1 000 | 1 000 |
| 1 March 2013 | 4 784 | 4 784 |
| 1 April 2013 | 1 000 | 1 000 |
| 1 April 2014 | 1 000 | 1 000 |
| 1 October 2013 | 885 | 885 |
| 1 October 2014 | 1 770 | 1 770 |
| 1 October 2015 | 1 770 | 1 770 |
| 1 October 2016 | 885 | 885 |
| | 32 394 | 48 959 |

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

## 8. Equity-settled share-based payment reserve (continued)

### 8.1 Share option schemes (contined)

The following share options were outstanding at 31 December 2011 in favour of directors and prescribed officers of the company:

| | SP Elliot | ZJ Matlala | B McBride | K Bissessor | A Mahendranath |
|---|---|---|---|---|---|
| Average exercise price (cents) | 227 | 136 | 113 | 69 | 147 |
| | 000's | 000's | 000's | 000's | 000's |
| Exercisable on 31 December 2007 | – | – | – | – | – |
| Exercisable on 31 December 2008 | – | – | – | – | – |
| Exercisable on 30 June 2009 | – | – | 295 | – | 333 |
| Exercisable on 31 December 2009 | – | – | 1 124 | – | – |
| Exercisable on 30 June 2010 | – | – | 295 | – | 333 |
| Exercisable on 31 December 2010 | – | – | 3 357 | – | – |
| Exercisable on 1 March 2011 | 2 165 | – | 1 407 | – | 217 |
| Exercisable on 30 June 2011 | – | – | 295 | – | 333 |
| Exercisable on 1 March 2012 | 2 165 | – | 1 407 | – | 217 |
| Exercisable on 1 March 2013 | 2 165 | – | 1 407 | – | 217 |
| Exercisable on 1 April 2012 | – | – | – | 1 000 | – |
| Exercisable on 1 April 2013 | – | – | – | 1 000 | – |
| Exercisable on 1 April 2014 | – | – | – | 1 000 | – |
| Exercisable on 1 October 2013 | – | 885 | – | – | – |
| Exercisable on 1 October 2014 | – | 1 770 | – | – | – |
| Exercisable on 1 October 2015 | – | 1 770 | – | – | – |
| Exercisable on 1 October 2016 | – | 885 | – | – | – |
| | 6 495 | 5 310 | 9 587 | 3 000 | 1 650 |

## 8. Equity-settled share-based payment reserve (continued)

### 8.1 Share option schemes (contined)

The fair value of services received in return for share options granted is based on the fair value of share options granted, measured using the Black-Scholes-Merton model, with the following inputs:

| | Key management personnel | | | |
|---|---|---|---|---|
| | **2011** Share grants | **2011** Share options | **2010** Share grants | **2010** Share options |
| Fair value at grant date in cents | 146 | 79 | 146 | 88 |
| Share price in cents (weighted average) | 162 | 180 | 162 | 200 |
| Exercise price in cents (weighted average) | 0 | 180* | 0 | 200* |
| Expected volatility | 50% | 41% | 50% | 38% |
| Option life (expected weighted average) | 4.14 years | 5 years | 4.19 years | 5 years |
| Expected dividends | 1.42% | 1.02% | 1.41% | 1.23% |
| Risk-free interest rate | 7.95% | 8.82% | 7.95% | 9.31% |
| Weighted average share price of options exercised (in cents) | – | 98 | – | 143 |

* *This relates to the weighted average exercise price of options that have not yet vested at year end*

| | Senior and other personnel | | | |
|---|---|---|---|---|
| | **2011** Share grants | **2011** Share options | **2010** Share grants | **2010** Share options |
| Fair value at grant date in cents | 124 | 98 | 158 | 70 |
| Share price in cents (weighted average) | 134 | 227 | 170 | 156 |
| Exercise price in cents (weighted average) | 0 | 227* | 0 | 156* |
| Expected volatility | 50% | 35% | 50% | 40% |
| Option life (expected weighted average) | 4.01 years | 5 years | 4.02 years | 5 years |
| Expected dividends | 1.68% | 1.03% | 1.38% | 0.79% |
| Risk-free interest rate | 7.67% | 9.89% | 8.10% | 8.71% |
| Weighted average share price of options exercised (in cents) | – | – | – | 152 |

* *This relates to the weighted average exercise price of options that have not yet vested at year end*

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

## 8. Equity-settled share-based payment reserve (continued)

### 8.2 Share grants

The new share incentive scheme was approved by shareholders on 13 April 2010. During 2010 and 2011, various share grants and share options were issued to directors and employees of the company.

The purpose of the share incentive scheme is to serve as an incentive and reward to employees (including executive directors) of the company and its subsidiaries for services rendered and to be rendered, aimed at promoting the continued growth of the company by giving employees an opportunity to acquire shares in the company and to serve as a retention mechanism for employees whose services are regarded by the company to be crucial to the future growth and sustainability of the company's business. Share options and share grants are granted by the Board of directors of the company on the recommendation of the Remuneration Committee.

The Black-Scholes-Merton option pricing model was used to determine the fair value of the share grants. This valuation methodology is consistent with previous valuation calculations.

The share grants are split between portions being subject to performance conditions and portions with no performance conditions. 50% of the share grants to directors are subject to performance conditions and 50% are not subject to performance conditions. 20% of the share grants to employees are subject to performance conditions and 80% are not subject to performance conditions.

The following market and non-market conditions relate to 50% of the share grants granted to directors and 20% of the share grants granted to employees:

| | | | Probability of achievement | | |
|---|---|---|---|---|---|
| Vesting condition | Type | Weighting % | 3 year option % | 4 year option % | 5 year option % |
| Capacity growth* | non-market | 25 | 100 | 100 | 100 |
| Assets under management** | non-market | 25 | 100 | 100 | 100 |
| JSE SRI Index*** | non-market | 25 | 100 | 100 | 100 |
| JSE small capitalisation index and mining index | market | 25 | – | – | – |

* *The target is to grow ferrochrome capacity cumulatively by 3% (first hurdle), 6% (second hurdle) or 9% (third hurdle).*

** *The target is to grow total assets under management cumulatively by 6% (first hurdle), 12% (second hurdle) or 18% (third hurdle).*

*** *There are no hurdles. The index must be maintained for full incentives or if lost then there is no incentive on this measure. The areas measured under this index relate to environmental sustainability, economic sustainability, social sustainability and corporate governance*

Note: The capacity growth and assets under management target have three hurdles at which differing amounts of the share grants are earned. If the first hurdle is met then 50% of the share grants are earned. If the second hurdle is met then 75% of the share grants are earned and if the third hurdle is met then 100% of the share grants are earned.

The performance conditions include 75% of non-market conditions and 25% of market conditions. The probabilities relating to non-market conditions are estimated by management and will be adjusted each year. Market conditions of outperformance of either the mining index or the JSE small capitalisation index are incorporated using the probability of 62,5% into the initial valuation and are not subsequently adjusted for in accordance with IFRS 2: Share-based payments.

## 8. Equity-settled share-based payment reserve (continued)

### 8.2 Share grants (continued)

The following assumptions were used in the valuation model:

| Assumption | Weighted average |
|---|---|
| Risk free rate | 7.89% |
| Expected volatility | 50% |
| Expected dividend yield | 1.48% |
| Expected life | 4.11 |
| Vesting periods (years) | 3, 4 and 5 |
| Average exercise price | – |
| Average grant price (Rands) | 1.56 |
| Average option value (Rands) | 1.41 |

The following share grants were issued to key management and prescribed officers:

| Share grant dates | Number | Vesting conditions |
|---|---|---|
| Shares granted on 29 April 2010 | 1 766 833 | One third vesting 29 April 2013 |
| | 1 766 833 | One third vesting 29 April 2014 |
| | 1 766 834 | One third vesting 29 April 2015 |
| Shares granted on 1 October 2010 | 457 094 | Vesting 1 October 2013 |
| | 914 189 | Vesting 1 October 2014 |
| | 914 189 | Vesting 1 October 2015 |
| | 457 094 | Vesting 1 October 2016 |
| Shares granted on 1 April 2011 | 574 240 | One third vesting 1 April 2014 |
| | 574 240 | One third vesting 1 April 2015 |
| | 574 240 | One third vesting 1 April 2016 |
| Total key management share grants | 9 765 786 | |

| | SP Elliot |
|---|---|
| Exercisable on 29 April 2013 | 930 000 |
| Exercisable on 29 April 2014 | 930 000 |
| Exercisable on 29 April 2015 | 930 000 |
| Exercisable on 1 April 2014 | 198 529 |
| Exercisable on 1 April 2015 | 198 529 |
| Exercisable on 1 April 2016 | 198 529 |
| Total | 3 385 587 |

| | ZJ Matlala |
|---|---|
| Exercisable on 29 October 2013 | 457 094 |
| Exercisable on 29 October 2014 | 914 189 |
| Exercisable on 29 October 2015 | 914 189 |
| Exercisable on 29 October 2016 | 457 094 |
| Exercisable on 1 April 2014 | 139 650 |
| Exercisable on 1 April 2015 | 139 650 |
| Exercisable on 1 April 2016 | 139 650 |
| Total | 3 161 516 |

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

## 8. Equity-settled share-based payment reserve (continued)

### 8.2 Share grants (continued)

| | B McBride |
|---|---|
| Exercisable on 29 April 2013 | 553 333 |
| Exercisable on 29 April 2014 | 553 333 |
| Exercisable on 29 April 2015 | 553 334 |
| Exercisable on 1 April 2014 | 121 050 |
| Exercisable on 1 April 2015 | 121 050 |
| Exercisable on 1 April 2016 | 121 050 |
| Total | 2 023 150 |

| | A Mahendranath |
|---|---|
| Exercisable on 29 April 2013 | 100 000 |
| Exercisable on 29 April 2014 | 100 000 |
| Exercisable on 29 April 2015 | 100 000 |
| Exercisable on 1 April 2014 | 33 020 |
| Exercisable on 1 April 2015 | 33 020 |
| Exercisable on 1 April 2016 | 33 020 |
| Total | 399 060 |

| | K Bissessor |
|---|---|
| Exercisable on 29 April 2013 | 183 500 |
| Exercisable on 29 April 2014 | 183 500 |
| Exercisable on 29 April 2015 | 183 500 |
| Exercisable on 1 April 2014 | 81 991 |
| Exercisable on 1 April 2015 | 81 991 |
| Exercisable on 1 April 2016 | 81 991 |
| Total | 796 473 |

| | |
|---|---|
| Total key management share grants | 9 765 786 |

## 8. Equity-settled share-based payment reserve (continued)

### 8.2 Share grants (continued)

The following share grants were issued during the year to senior employees:

| Share grant dates | Number | Vesting conditions |
|---|---|---|
| Shares granted on 29 April 2010 to senior employees | 358 333 | One third vesting 29 April 2013 |
| | 358 333 | One third vesting 29 April 2014 |
| | 358 334 | One third vesting 29 April 2015 |
| Shares granted on 1 September 2010 to senior employees | 116 666 | One third vesting 1 September 2013 |
| | 116 667 | One third vesting 1 September 2014 |
| | 116 667 | One third vesting 1 September 2015 |
| Shares granted on 1 April 2011 to senior employees | 73 138 | One third vesting 1 April 2014 |
| | 73 138 | One third vesting 1 April 2015 |
| | 73 138 | One third vesting 1 April 2016 |
| Shares granted on 25 November 2011 to senior employee | 91 996 | One third vesting 25 November 2014 |
| | 91 996 | One third vesting 25 November 2015 |
| | 91 996 | One third vesting 25 November 2016 |
| Shares granted on 1 December 2011 to senior employee | 313 443 | One third vesting 25 November 2014 |
| | 313 443 | One third vesting 25 November 2015 |
| | 313 443 | One third vesting 25 November 2016 |
| Total | 2 860 731 | |

| | Key management and prescribed officers Number of grants | Senior employees Number of grants | Total |
|---|---|---|---|
| **2011** | | | |
| Share grants outstanding at beginning of year | 8 043 066 | 1 425 000 | 9 468 066 |
| Share grants granted during the year | 1 722 720 | 1 435 731 | 3 158 451 |
| Share grants outstanding at end of year | 9 765 786 | 2 860 731 | 12 626 517 |
| Exercisable at end of year | – | – | – |
| **2010** | | | |
| Share grants outstanding at beginning of year | – | – | – |
| Share grants granted during the year | 7 192 566 | 2 275 500 | 9 468 066 |
| Share grants outstanding at end of year | 7 192 566 | 2 275 500 | 9 468 066 |
| Exercisable at end of year | – | – | – |

*Expected volatility*

*The monthly and daily volatility is calculated based on the company's share price over a 1, 3, 4 and 5 year period in which the volatilities range from 27% to 62%. The volatility calculations are as per the Financial Risk Service ('FRS') of the JSE prepared by UCT and Cadiz as at March 2011 for the industrial metals index. The FRS calculates volatility on a monthly basis over a 5 year period. Based on the publications, the industrial metals index volatility was 35.1% in March and 34% in September.*

*Based on the mining index and the calculations for the company, a volatility of 50% is used in the valuations. This is consistent with volatilities used in prior valuations.*

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

| | | Group | | Company | |
|---|---|---|---|---|---|
| | | 2011 R'000 | 2010 R'000 | 2011 R'000 | 2010 R'000 |
| **9.** | **Loans and borrowings** | | | | |
| 9.1 | Finance leases – property, plant and equipment | 12 786 | 13 617 | – | – |
| 9.2 | ABSA Capital | 300 500 | 300 000 | – | – |
| 9.3 | Horizon Nature Conservation Trust | | | 1 608 | 1 542 |
| 9.4 | Xstrata SA Proprietary Limited | 15 076 | 99 869 | – | – |
| | Total loans and borrowings | 328 362 | 413 486 | 1 608 | 1 542 |
| | Current portion of loans and borrowings | | | | |
| | – Xstrata SA Proprietary Limited (refer Note 13) | (15 076) | (99 869) | – | – |
| | – finance leases | (508) | (831) | – | – |
| | Non-current portion of loans and borrowings | 312 778 | 312 786 | 1 608 | 1 542 |

9.1 These loans are secured by finance leases over plant and equipment with a carrying value of R37m (31 December 2010: R38.9m) as per Note 2.2. The loans are repayable in monthly instalments averaging R189 391 (31 December 2010: R226 950) per month. Interest is payable at an average of 14.5% (31 December 2010: 14.25 %) per annum.

In accordance with the agreement with the Venture, Merafe Ferrochrome receives 20.5% of the Venture's EBITDA whilst retaining ownership of its assets. The finance lease obligations in the group's statement of financial position and the minimum finance lease repayments represent 20.5% of the Venture's total obligations whereas the carrying values of assets that secure the finance leases, relate to the assets that are controlled by the group and are reflected in the group statement of financial position.

9.2 During December 2011, management re-negotiated its debt facility with ABSA Capital.

The new ABSA Capital facility is a long-term loan with a termination date that does not extend beyond 31 December 2017. R400m of the facility is a Term Facility and R400m is a Revolving Credit Facility. Merafe Ferrochrome is obliged to provide ABSA Capital at 30 September each year with written notice that the termination date should be extended for a period of twelve months. The written notice should not be less than 365 days and therefore the earliest termination date of the loan is 31 December 2013.

R175.5m of the loan bears interest at the Johannesburg Interbank Agreed Rate plus a margin of 1.5%. R125m of the loan bears interest at a fixed rate of 10.61% plus a margin of 1.2958% plus bank costs. At year end the variable rate including the margin and bank costs was 7.1% (31 December 2010: 7.8%).

The loan is secured by the following:

- a general notarial bond over movable plant and equipment;
- a cession of rights, title and interest of Merafe Ferrochrome's participation interest under the Pooling and Sharing Agreement with Xstrata;
- a cession of rights, title and interest of the Wonderkop assets, Bokamoso assets, Lion I and Lion II assets;
- a cession of bank accounts.

Further to the above security, there is a negative pledge in place over all Merafe Ferrochrome's assets

The financial covenants relating to the loan are as follows:

- The group's gearing ratio should not be more than 35%
- The group's pre-agreed minimum liquidity amount should not be less than R50m

Based on budgets for the year ahead, management are satisfied that the financial covenants will be complied with on the applicable measurement dates during 2012.

## 9. Loans and borrowings (continued)

9.3 This loan is unsecured, interest free, has no fixed repayment terms but by intent is of a long-term nature.

9.4 The Xstrata SA Proprietary Limited loan is unsecured and interest free with no fixed terms of repayment.

Minimum finance lease repayments:

| | Capital R'000 | Interest R'000 | Total R'000 |
|---|---|---|---|
| **2011** | | | |
| Repayable within the next year | 508 | 1 821 | 2 329 |
| Repayable later than 1 year but not later than 5 years | 2 125 | 6 513 | 8 638 |
| Repayable greater than 5 years | 10 153 | 10 318 | 20 471 |
| | 12 786 | 18 652 | 31 438 |
| **2010** | | | |
| Repayable within the next year | 831 | 1 892 | 2 723 |
| Repayable later than 1 year but not later than 5 years | 2 033 | 6 826 | 8 859 |
| Repayable greater than 5 years | 10 721 | 11 857 | 22 578 |
| | 13 585 | 20 575 | 34 160 |

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

| | | Group | | Company | |
|---|---|---|---|---|---|
| | | 2011 R'000 | 2010 R'000 | 2011 R'000 | 2010 R'000 |
| **10.** | **Provision for closure and restoration costs** | | | | |
| | Balance at beginning of year | 39 439 | 37 347 | – | – |
| | Utilised during the year | (1 686) | (1 602) | – | – |
| | Provisions made during the year | 8 022 | 1 161 | – | – |
| | Unwinding of discount | 2 621 | 2 533 | – | – |
| | Balance at end of year | 48 396 | 39 439 | – | – |
| | The provision relates to a liability for the rehabilitation of land involved in any prospecting or mining operations of the group and to discharge any liability which may arise in terms of the Atmospheric Pollution Prevention Act of 1965, the Environment Conservation Act, No 73 of 1989, the Minerals Act, No 50 of 1991, the Water Act, No 54 of 1956 and any such other legislation that may be enacted in the future. The environmental obligations and corresponding liability remains the sole responsibility of the Venture. | | | | |
| | For purposes of calculating this provision, management has assumed a long-term inflation rate of 5% and a discounting rate of 8% for both the current and prior year. The expected timing of outflows is an average 21 years. | | | | |
| **11.** | **Deferred tax (liabilities)/assets** | | | | |
| | Recognised deferred tax (liabilities)/assets: | | | | |
| | Property, plant and equipment | (552 495) | (506 869) | (13) | (24) |
| | Provisions and accruals | 36 974 | 29 190 | 641 | 707 |
| | Finance leases | 3 580 | 3 813 | – | – |
| | Tax losses | 5 737 | 4 332 | 5 737 | 4 332 |
| | | (506 204) | (469 534) | 6 365 | 5 015 |
| | Management are of the view that the deferred tax asset is recoverable based on the fact that the management fee and dividends are controlled by the holding company coupled with their budgets for the year ahead, this assumption is deemed appropriate. | | | | |

## 11. Deferred tax (liabilities)/assets (continued)

**Movement in temporary differences during the year – Group**

| | Balance 1 January **2010** R'000 | Recognised in profit or loss in **2010** R'000 | Balance 31 December **2010** R'000 | Recognised in profit or loss in **2011** R'000 | Balance 31 December **2011** R'000 |
|---|---|---|---|---|---|
| Property, plant and equipment | (438 635) | (68 234) | (506 869) | (45 626) | (552 495) |
| Provisions and accruals | 20 678 | 8 512 | 29 190 | 7 784 | 36 974 |
| Finance leases | 4 061 | (248) | 3 813 | (233) | 3 580 |
| Tax losses | 31 716 | (28 384) | 4 332 | 1 405 | 5 737 |
| | (382 180) | (88 354) | (469 534) | (36 670) | (506 204) |

As at 31 December 2011, tax losses were fully utilised in Merafe Ferrochrome and Mining Proprietary Limited and a balance of R25m remains in Merafe Resources Limited.

**Movement in temporary differences during the year – Company**

| | Balance 1 January **2010** R'000 | Recognised in profit or loss in **2010** R'000 | Balance 31 December **2010** R'000 | Recognised in profit or loss in **2011** R'000 | Balance 31 December **2011** R'000 |
|---|---|---|---|---|---|
| Property, plant and equipment | (30) | 6 | (24) | 11 | (13) |
| Provisions | 209 | 498 | 707 | (66) | 641 |
| Tax losses | 4 273 | 59 | 4 332 | 1 405 | 5 737 |
| | 4 452 | 563 | 5 015 | 1 350 | 6 365 |

| | Group | | Company | |
|---|---|---|---|---|
| | **2011** R'000 | **2010** R'000 | **2011** R'000 | **2010** R'000 |
| **12. Financial liability** | | | | |
| Interest rate swap | 6 098 | 11 048 | – | – |

The nominal amount of the interest rate swap is R125m. The instrument ensures that the interest rate, before the margin and the bank costs, on the R125m nominal amount, which is part of the ABSA Capital loan, is fixed at 10.61% (31 December 2010: 10.61%). Refer Note 9.2. Refer to Note 20.2 for details regarding liquidity risk.

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

## 13. Trade and other payables

| | Group | | Company | |
|---|---|---|---|---|
| | 2011 R'000 | 2010 R'000 | 2011 R'000 | 2010 R'000 |
| Trade payables | 199 520 | 192 003 | 44 | 120 |
| Employee benefit accruals | 60 426 | 77 199 | 10 458 | 10 973 |
| Other payables and accruals* | 100 924 | 39 894 | 40 980 | – |
| Xstrata South Africa Proprietary Limited (refer Note 9.4) | 15 076 | 99 869 | – | – |
| | 375 946 | 408 965 | 51 482 | 11 093 |

** Includes VAT and PAYE accruals.*

The Venture partners are in the process of engaging with SARS with a view to obtaining clarity on other areas where the structure of the Venture creates anomalies with regard to VAT interpretation.

Trade payables are non-interest bearing and are normally settled on 30 to 45 day terms. Other payables are non-interest bearing and are normally settled on 30 day terms.

An accrual is recognised for the employee's liability for annual leave and associated costs. The accrual for compensated absences is recognised when the employee renders the service and the accrual is updated on a monthly basis. Employee benefits include an accrual for bonuses in terms of the group's bonus scheme.

The group's exposure to currency and liquidity risk related to trade and other payables is disclosed in Note 20.

## 14. Revenue

| | Group | | Company | |
|---|---|---|---|---|
| | 2011 R'000 | 2010 R'000 | 2011 R'000 | 2010 R'000 |
| Revenue from sale of ferrochrome | 2 083 956 | 2 348 990 | – | – |
| Revenue from sale of chrome ore | 342 774 | 209 426 | – | – |
| Management fees | 25 | 25 | 22 090 | 32 367 |
| | 2 426 755 | 2 558 441 | 22 090 | 32 367 |

## 14. Revenue (continued)

*Geographical areas of ferrochrome sales*

The majority of customers are stainless steel mills located at the following revenue destinations:

| Revenue destination | 2011 Revenue R'000 | 2011 % of revenue in relation to total ferrochrome revenue | 2010 Revenue R'000 | 2010 % of revenue in relation to total ferrochrome revenue |
|---|---|---|---|---|
| Africa* | 72 015 | 3 | 84 378 | 4 |
| Americas** | 219 097 | 11 | 355 200 | 15 |
| Asia*** | 1 130 878 | 54 | 1 066 156 | 45 |
| Australia | 341 | 0 | 1 202 | 0 |
| Europe**** | 661 625 | 32 | 842 054 | 36 |
| Total | 2 083 956 | 100 | 2 348 990 | 100 |

* *includes South Africa and Morocco*

** *includes Canada and USA*

*** *includes China, Japan, Korea, Singapore, Taiwan and Thailand*

**** *includes UK, Austria, Belgium, France, Germany, Italy, Netherlands, Slovenia, Spain and Sweden*

*Geographical areas of chrome ore sales*

| Revenue destination | 2011 Revenue R'000 | 2011 % of revenue in relation to total chrome revenue | 2010 Revenue R'000 | 2010 % of revenue in relation to total chrome revenue |
|---|---|---|---|---|
| Africa* | 97 292 | 28 | 49 870 | 24 |
| Asia*** | 245 482 | 72 | 159 556 | 76 |
| Total | 342 774 | 100 | 209 426 | 100 |

Sales to the following customers individually comprise more than 10% of total sales:

| Ferrochrome | 2011 Revenue R'000 | 2011 % of revenue in relation to total revenue | 2010 Revenue R'000 | 2010 % of revenue in relation to total revenue |
|---|---|---|---|---|
| Customer A | 434 757 | 21 | 300 593 | 13 |
| Customer B | 211 269 | 10 | 329 781 | 14 |
| Customer C | 217 073 | 10 | 323 267 | 14 |
| Total | 863 099 | 41 | 953 641 | 41 |

| Chrome ore | 2011 Revenue R'000 | 2011 % of revenue in relation to total revenue | 2010 Revenue R'000 | 2010 % of revenue in relation to total revenue |
|---|---|---|---|---|
| Customer D | 44 405 | 13 | 23 175 | 11 |
| Customer E | 92 022 | 27 | 34 169 | 16 |
| Customer F | 61 582 | 18 | 53 753 | 26 |
| Customer G | – | – | 48 970 | 23 |
| Total | 198 009 | 58 | 160 067 | 76 |

Note: The marketing agent, Glencore, accepts 60% of the risk related to non-payment of credit sales of ferrochrome and 100% of the risk related to non-payment of credit sales of chrome ore.

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

| | Group | | Company | |
|---|---|---|---|---|
| | 2011 R'000 | 2010 R'000 | 2011 R'000 | 2010 R'000 |
| **15. Results from operating activities** | | | | |
| *The following items have been taken into account in arriving at results from operating activities:* | | | | |
| Dividend income | – | – | 49 533 | 123 270 |
| Impairment of coal reserves | – | (206) | – | (206) |
| Embedded derivative recognised on sales contracts | (9 201) | (6 067) | – | – |
| Project Tswelopele forward cover derivative | – | 700 | – | – |
| Profit on disposal of property, plant and equipment – Gross | – | 13 275* | | |
| Tax | – | (3 717) | – | – |
| Net | – | 9 558 | – | – |
| * *Relates to insurance recovery proceeds* | | | | |
| Consulting fees | (15 841) | (11 495) | ( 5 629) | (2 286) |
| Increase in provision for closure and restoration | (8 687) | (3 694) | – | – |
| Operating lease expenses | (5 997) | (7 233) | (1 081) | (934) |
| – Office equipment | (563) | (886) | (272) | (207) |
| – Buildings | (5 434) | (6 347) | (809) | (727) |
| Personnel expenses | (448 883) | (423 234) | (13 264) | (6 856) |
| – Salaries and wages | (373 803) | (352 077) | (3 251) | (3 057) |
| – Defined contribution expense – provident fund | (34 730) | (32 181) | (1 908) | (1 476) |
| – Defined contribution expense – medical aid | (30 169) | (25 187) | (411) | (277) |
| – Equity-settled share-based payment expense | (7 368) | (2 282) | (7 368) | (2 282) |
| – (Increase)/decrease in accrual for leave pay and bonuses | (2 813) | (11 507) | (326) | 236 |

The proportion of the group's employees covered by the provident fund is as follows:

| | % of employees covered by the plan | |
|---|---|---|
| | 2011 | 2010 |
| Merafe Resources Limited | 100 | 100 |
| The Venture | 100 | 100 |

| | Group | | Company | |
|---|---|---|---|---|
| | 2011 R'000 | 2010 R'000 | 2011 R'000 | 2010 R'000 |
| **16. Net finance (expense)/income recognised in profit or loss** | | | | |
| **Finance expense** | (32 853) | (33 853) | (4 383) | (1) |
| Finance expense on financial liabilities measured at amortised cost | (28 471) | (31 373) | (1) | (1) |
| Interest on loans and borrowings | (28 470) | (31 372) | – | – |
| Finance expense on bank overdraft | (1) | (1) | (1) | (1) |
| Fair value adjustment on interest rate swap | – | (2 480) | – | – |
| Finance expense on VAT, PAYE and income tax | (4 382) | – | (4 382) | – |
| **Finance income** | 11 288 | 8 856 | 5 010 | 5 882 |
| Interest income on bank deposits | 4 729 | 705 | 4 205 | 627 |
| Dividend income | 1 609 | 8 151 | 805 | 5 255 |
| Fair value adjustment on interest rate swap | 4 950 | – | – | – |
| Net finance (expense)/income | (21 565) | (24 997) | 627 | 5 881 |
| **Net finance (expense)/income per financial instrument category** | | | | |
| **Loans and receivables** | 6 337 | 8 855 | 5 009 | 5 881 |
| Interest income on bank deposits | 4 729 | 705 | 4 205 | 627 |
| Dividend income | 1 609 | 8 151 | 805 | 5 255 |
| Finance expense on bank overdraft | (1) | (1) | (1) | (1) |
| **Financial liabilities measured at amortised cost** | (32 852) | (31 372) | (4 382) | – |
| Interest expense on borrowings | (28 470) | (31 372) | – | – |
| Finance expense on VAT, PAYE and income tax | (4 382) | – | (4 382) | – |
| **Financial liabilities at fair value through profit or loss** | 4 950 | (2 480) | – | – |
| Fair value adjustment on interest rate swap | 4 950 | (2 480) | – | – |
| | (21 565) | (24 997) | 627 | 5 881 |

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

| | Group | | Company | |
|---|---|---|---|---|
| | 2011 R'000 | 2010 R'000 | 2011 R'000 | 2010 R'000 |
| **17. Income tax** | | | | |
| **Normal taxation** | (83 886) | (108 534) | 1 192 | 563 |
| **Current tax** | (47 216) | (20 180) | (158) | – |
| – current year | (29 433) | (20 180) | – | – |
| – prior years' underprovision | (17 783) | – | (158) | – |
| **Deferred tax** | (36 670) | (88 354) | 1 350 | 563 |
| Deferred taxation – current charge | (36 670) | (88 354) | 1 350 | 563 |
| **Secondary tax on companies (STC)** | (4 511) | (4 045) | (4 511) | (4 045) |
| Total taxation | (88 397) | (112 579) | (3 319) | (3 482) |
| The total estimated unredeemed capital expenditure in the group is R271m which was taken into account in determining the deferred tax liability (31 December 2010: R252m). | | | | |
| The company has unutilised STC credits of R0.6m (31 December 2010: R0.3m). | | | | |
| Profit (loss) before income tax | 205 147 | 391 283 | (12 098) | 122 955 |
| | % | % | % | % |
| Taxation on profit before taxation at standard rate | 28.0 | 28.0 | (28.0) | 28.0 |
| Taxation effect of non-deductible expenditure | 6.5 | 1.0 | 122.8 | 0.8 |
| Taxation effect of non-taxable income | (0.1) | (1.9) | (116.5) | (29.3) |
| Taxation effect of unrecognised temporary differences | (2.1) | 0.7 | 10.5 | – |
| Prior years' underprovision | 8.7 | – | 1.3 | – |
| Secondary taxation on companies | 2.2 | 1.0 | 37.3 | 3.3 |
| Effective tax rate | 43.2 | 28.8 | 27.4 | 2.8 |

| | 2011 (cents) | 2010 (cents) |
|---|---|---|
| **18. Earnings per share** | | |
| 18.1 Basic earnings per share | 5 | 11 |

The calculation of basic earnings per share is based on profit attributable to ordinary shareholders of R117m for the year ended 31 December 2011, profit attributable to ordinary shareholders of R279m for the year ended 31 December 2010, and a weighted average number of ordinary shares outstanding during the year of 2 478 541 751 (31 December 2010: 2 463 152 779).

| | | Number of shares 2011 | 2010 |
|---|---|---|---|
| **18.** | **Earnings per share (continued)** | | |
| 18.1 | Calculation of weighted average number of shares | | |
| | Issued ordinary shares at 1 January | 2 476 656 043 | 2 459 258 860 |
| | Effect of share options exercised | 1 885 708 | 3 893 919 |
| | Weighted average number of shares at 31 December | 2 478 541 751 | 2 463 152 779 |

| | | 2011 (cents) | 2010 (cents) |
|---|---|---|---|
| 18.2 | Headline earnings per share | 6 | 11 |

The calculation of headline earnings per share is based on profit attributable to ordinary shareholders of R158m for the year ended 31 December 2011, profit attributable to ordinary shareholders of R279m for the year ended 31 December 2010 and a weighted average number of shares outstanding during the year of 2 478 541 751 (31 December 2010: 2 463 152 779).

| | 2011 R | 2010 R |
|---|---|---|
| Headline earnings is calculated as follows: | | |
| Total comprehensive income for the year | 116 750 000 | 278 704 000 |
| Profit on disposal of property, plant and equipment | – | (9 558 000) |
| Impairments* | 41 410 000 | 206 000 |
| Headline earnings | 158 160 000 | 269 352 000 |

** The taxation impact is nil.*

| | | 2011 (cents) | 2010 (cents) |
|---|---|---|---|
| 18.3 | Diluted earnings per share | 5 | 11 |

The calculation of diluted earnings per share is based on profit attributable to ordinary shareholders of R117m for the year ended 31 December 2011, profit attributable to ordinary shareholders of R279m for the year ended 31 December 2010 and a weighted average number of shares outstanding during the year of 2 486 859 923 (31 December 2010: 2 463 152 779).

| | Number of shares 2011 | 2010 |
|---|---|---|
| **Calculation of weighted average number of shares** | | |
| Weighted average number of ordinary shares used in calculating diluted earnings per share | 2 478 541 751 | 2 463 152 779 |
| Deemed issue of ordinary shares in respect of share options and share grants | 8 318 172 | 18 812 547 |
| Weighted average number of ordinary shares used in calculating diluted earnings per share | 2 486 859 923 | 2 481 965 326 |

| | | 2011 (cents) | 2010 (cents) |
|---|---|---|---|
| 18.4 | Diluted headline earnings per share | 6 | 11 |

The calculation of diluted headline earnings per share is based on profit attributable to ordinary shareholders of R158m for the year ended 31 December 2011, profit attributable to ordinary shareholders of R279m for the year ended 31 December 2010 and a weighted average number of shares outstanding during the year of 2 486 859 923 (31 December 2010: 2 481 965 326).

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

| | Note | Group 2011 R'000 | Group 2010 R'000 | Company 2011 R'000 | Company 2010 R'000 |
|---|---|---|---|---|---|
| **19. Cash generated from/(utilised in) operating activities** | | | | | |
| **Profit/(loss) before tax** | | 205 147 | 391 283 | (12 098) | 122 955 |
| *Adjustments for:* | | | | | |
| Depreciation and impairment | | 153 113 | 113 741 | 437 | 414 |
| Finance income | 16 | (11 288) | (8 856) | (5 010) | (5 882) |
| Finance expense | 16 | 32 853 | 33 853 | 4 383 | 1 |
| Equity-settled share-based payment expense | | 7 368 | 2 282 | 7 368 | 2 282 |
| Provision for closure and restoration | | 8 957 | 2 092 | – | – |
| Fair value adjustment on interest rate swap | | (4 950) | 2 480 | – | – |
| Effect of exchange rate fluctuations on cash held during the year | | (53 993) | 22 830 | – | – |
| | | 337 207 | 559 705 | (4 920) | 119 770 |
| Change in inventories | | (214 353)[a] | (105 612)[a] | – | – |
| Change in trade and other receivables | | 173 441[b] | (201 168)[b] | (32 891) | 1 687 |
| Change in trade and other payables | | 47 785[c] | 41 609[c] | 36 841 | 6 552 |
| Cash generated from/(utilised in) operating activities | | 344 080 | 294 534 | (970) | 128 009 |

*a) Net of depreciation capitalised of R14m (2010: R2.2m)*

*b) Net of interest accrual of R1m (2010: Rnil)*

*c) Net movement in loan account with the Venture of R85m (2010: R89m), net of loans and borrowings of R0.3m (2010: R0.57m) and net of interest accruals of R4m (2010: Rnil)*

### 19.1 Cash and cash equivalents

| | Group 2011 R'000 | Group 2010 R'000 | Company 2011 R'000 | Company 2010 R'000 |
|---|---|---|---|---|
| Bank balance | 108 827 | 190 015 | 9 054 | 4 344 |
| Call deposits | 111 613 | 130 655 | 111 520 | 81 954 |
| Cash on hand | 19 | 54 | 1 | 6 |
| Cash and cash equivalents in statement of cash flows | 220 459 | 320 724 | 120 575 | 86 304 |
| *Reconciliation of cash in the group* | | | | |
| Cash in the Venture | 93 074 | 184 621 | | |
| Cash in Merafe Ferrochrome, the company and Merafe Kroondal Rehabilitation Trust | 127 385 | 136 103 | | |
| Total | 220 459 | 320 724 | | |

Cash at bank earns interest at a floating rate based on daily bank deposit rates. Call deposits are made for varying periods of between one day and one month depending on the immediate cash requirements of the group, and earn interest/dividends at the respective call deposit rates.

The group's exposure to interest rate risk and sensitivity analysis for financial assets and liabilities are disclosed in Note 20.

| | | Group | | Company | |
|---|---|---|---|---|---|
| | | 2011 R'000 | 2010 R'000 | 2011 R'000 | 2010 R'000 |
| **19.** | **Cash generated from/(utilised in) operating activities (continued)** | | | | |
| 19.2 | Taxation paid | | | | |
| | Income tax | (30 157) | (23 715) | (158) | _ |
| | Total taxation paid | (30 157) | (23 715) | (158) | _ |

## 20. Financial instruments

*Principles of risk management*

The group has exposure to the following risks from its use of financial instruments:

- Credit risk
- Liquidity risk
- Market risk

This note presents information about the group's exposure to each of the above risks, the group's objectives, policies and processes for measuring and managing risk, and the group's management of capital. Further quantitative disclosures are included throughout these consolidated financial statements.

The board of directors has overall responsibility for the establishment and oversight of the group's risk management framework. The board has established a group Audit and Risk Committee, which is responsible for monitoring the group's risk management policies. The committee reports directly to the board of directors on its activities.

The group's risk management policies are established to identify and analyse the risks faced by the group, to set appropriate risk limits and controls, and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the group's activities. The group, through its training and management standards and procedures, aims to develop a disciplined and constructive control environment in which all employees understand their roles and obligations.

The group Audit and Risk Committee oversees how management monitors compliance with the group's risk management policies and procedures and reviews the adequacy of the risk management framework in relation to the risks faced by the group. The group Audit and Risk Committee is assisted in the oversight role at operations level by internal audit. Internal audit undertakes both regular and ad hoc reviews of risk management controls and procedures, the results of which are reported to the group Audit and Risk Committee.

Whilst the recommendations are reviewed and approved by the board of directors, the Venture's treasury department is responsible for implementing these recommendations at the Venture level.

The overall objective of the Venture's treasury department is to effectively manage credit risk, liquidity risk and market risks in accordance with the group's strategy. Other responsibilities of the Venture's treasury department include management of the group's cash resources, approval of counter-parties and relevant transaction limits and the monitoring of all significant treasury activities undertaken by the group. The group uses both conventional financial instruments and derivative financial instruments to manage these risks.

The Venture's treasury department prepares monthly treasury reports which monitor all significant treasury activities undertaken by the Venture. The report also benchmarks significant treasury activities and monitors key banking risks to ensure continued effectiveness.

The group's significant financial instruments comprise loans and receivables, cash and cash equivalents and financial liabilities measured at amortised cost. The main purpose of these financial instruments is to finance the group's acquisitions and ongoing operations.

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

## 20. Financial instruments (continued)

### 20.1 Credit risk

Credit risk is the risk of financial loss to the group if a customer or counter-party to a financial instrument fails to meet its contractual obligation.

Exposure to credit risk arises as a result of transactions in the group's ordinary course of business and is applicable to all financial assets. Counter-parties are assessed both prior to, during and after conclusion of transactions to ensure exposure to credit risk is limited to an acceptable level.

*Cash and cash equivalents*
The group limits its exposure to credit risk by investing only in liquid securities and only with approved banks and financial institutions. The group's cash balances are in the form of short-term deposits in both local and foreign currency.

*Trade and other receivables*
The group's exposure to credit risk is influenced mainly by the individual characteristics of each customer. The demographics of the group's customer base, including the default risk of the industry and country in which the customers operate, has less of an influence on credit risk. Management have considered recoverability of trade and other receivables and no impairment losses are expected.

The group sells the majority of its ferrochrome to a broad range of international customers in terms of the Xstrata-Merafe Chrome Venture agreement. As a result, the group believes that no concentration of credit risk exists with regard to sales to these customers.

The marketing agent, Glencore, which is a related party to the Xstrata group, accepts 60% of the risk related to non-payment of credit sales of ferrochrome and100% of the risk of non-payment of credit sales of chrome ore. In general, Glencore acts as a sales and marketing agent, on-selling purchases from the group to a wide variety of customers. These sales are governed by various sales, marketing and distribution agreements. As these agreements have been in place for a number of years and the group has not been exposed to significant unrecoverable amounts, the group does not believe that these arrangements expose it to unacceptable credit risks.

Where concentrations of credit risk exist, management closely monitors the receivable and ensures appropriate controls are in place to ensure recovery. The group does not have netting arrangements with any debtors.

*Investments*
The company has a loan receivable from Merafe Chrome and Alloys Proprietary Limited, a wholly-owned subsidiary. The recoverability of the loan is assessed periodically.

| | Group | | Company | |
|---|---|---|---|---|
| | **2011** R'000 | **2010** R'000 | **2011** R'000 | **2010** R'000 |
| **20. Financial instruments (continued)** | | | | |
| 20.1 Credit risk (continued) | | | | |
| **Guarantees** | | | | |
| The group's policy is to provide financial guarantees only to wholly-owned subsidiaries. | | | | |
| **Exposure to credit risk** | | | | |
| The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at the reporting date was: (refer Note 20.4) | | | | |
| Loans to subsidiaries | – | – | 1 187 655 | 1 264 957 |
| Trade and other receivables | 201 359 | 375 878 | 33 584 | 1 |
| Cash and cash equivalents | 220 459 | 320 724 | 120 575 | 86 304 |
| | 421 818 | 696 602 | 1 341 814 | 1 351 262 |
| The ageing of trade receivables at the reporting date was: | | | | |
| Not past due | 192 730 | 348 227 | 33 584 | 1 |
| Past due 31 – 120 days | 8 629 | 27 651 | – | – |
| | 201 359 | 375 878 | 33 584 | 1 |

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

## 20. Financial instruments (continued)

### 20.2 Liquidity risk

Liquidity risk is the risk that the group will not be able to meet its financial obligations on time. The group's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the group's reputation.

The Venture's treasury department is responsible for management of liquidity risk, including funding, settlements, related processes and policies. The group manages its liquidity risk on a concentrated basis, utilising various sources of finance to maintain flexibility while ensuring access to cost-effective funds when required. The operational, tax, capital and regulatory requirements and obligations of the group are considered in the management of liquidity risk. In addition, management utilises both short- and long-term cash flow forecasts and other consolidated financial information to manage liquidity risk.

The group uses activity-based costing to cost its products, which assists it in monitoring cash flow requirements and optimising its cash return on investments. Typically the group ensures that it has sufficient cash on demand to meet expected operational expenses for a period of 60 days, including the servicing of financial obligations, this excludes the potential impact of extreme circumstances that cannot reasonably be predicted, such as natural disasters.

In addition, the group maintains the following facilities:

*Merafe Resources Limited*

- ABSA Bank Limited: R1m credit card facilities. Interest is payable at ABSA Bank Limited's prime lending rate. At year end the prime lending rate was 9%.
- ABSA Bank Limited: R0.3m guarantee facility.

*Merafe Ferrochrome and Mining Proprietary Limited*

- ABSA Bank Limited: R15m general banking facility and/or customer foreign currency account facility. Interest would be payable at the prime overdraft rate.
- ABSA Bank Limited: R20.2m financial guarantee facility.
- ABSA Bank Limited: R0.5m credit card facility. Interest on arrears is payable at prime overdraft rate plus 4.5%.
- ABSA Bank Limited: R800m long-term loan.

*The Venture*

- ABSA Bank Limited: US$50m foreign currency overdraft account. Interest charged at US$ LIBOR plus a margin of 0.3% plus cost of funds that is currently 0.625%.
- Standard Bank debtors factoring facility: US$135m. Interest is charged at US$ LIBOR plus a margin of 1.5%.

At year end US$ LIBOR was 0.3% (31 December 2010: 0.2%).

## 20. Financial instruments (continued)

### 20.2 Liquidity risk (continued)

The following guarantee facilities are in place:

| | ABSA R'000 | Nedbank R'000 | Total R'000 |
|---|---|---|---|
| **31 December 2011** | | | |
| Facility available | 47 389 | 8 351 | 55 740 |
| Facility utilised | 47 389 | 8 351 | 55 740 |
| Eskom | 21 605 | – | 21 605 |
| DMR | 24 105 | 8 351 | 32 456 |
| Customs and Excise | 314 | – | 314 |
| Town Councils and Water Boards | 1 365 | – | 1 365 |
| Percentage utilised | 100% | 100% | 100% |
| **31 December 2010** | | | |
| Facility available | 47 192 | 5 480 | 52 672 |
| Facility utilised | 47 192 | 5 480 | 52 672 |
| Eskom | 21 606 | – | 21 606 |
| DMR | 23 907 | 5 480 | 29 387 |
| Customs and Excise | 314 | – | 314 |
| Town Councils and Water Boards | 1 365 | – | 1 365 |
| Percentage utilised | 100% | 100% | 100% |

*Note: All of the above guarantees are in the name of Xstrata and relate to the Venture.*

The following are the contractual maturities of financial liabilities including estimated interest payments and excluding the impact of netting arrangements.

| | Year ended 31 December 2012 R'000 | Year ended 31 December 2013 R'000 | Year ended 31 December 2014 R'000 | Year ended 2015 and onwards R'000 | Total R'000 |
|---|---|---|---|---|---|
| **Group 2011** | | | | | |
| **Non derivative** | | | | | |
| ABSA Bank Limited | 22 604 | 330 582 | – | – | 353 186 |
| Finance lease liabilities | 2 330 | 2 354 | 2 144 | 24 611 | 31 439 |
| Trade and other payables | 312 324 | – | – | – | 312 324 |
| **Derivative** | | | | | |
| Interest rate swap | (5 059) | – | – | – | (5 059) |
| Total | 332 199 | 332 936 | 2 144 | 24 611 | 691 890 |

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

## 20. Financial instruments (continued)

### 20.2 Liquidity risk (continued)

| | Year ended 31 December **2011** R'000 | Year ended 31 December **2012** R'000 | Year ended 31 December **2013** R'000 | Year ended **2014** and onwards R'000 | Total R'000 |
|---|---|---|---|---|---|
| **Group 2010** | | | | | |
| ABSA Bank Limited | 22 050 | 322 110 | – | – | 344 160 |
| Finance lease liabilities | 2 722 | 2 329 | 2 378 | 26 731 | 34 160 |
| Trade and other payables | 408 964 | – | – | – | 408 964 |
| Interest rate swap | 6 365 | 5 365 | – | – | 11 730 |
| | 440 101 | 329 804 | 2 378 | 26 731 | 799 014 |

**Company 2011**

Trade and other payables of R38m contractually mature during the year ended 31 December 2012.

**Company 2010**

Trade and other payables of R0.1m contractually mature during the year ended 31 December 2011.

### 20.3 Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates, interest rates and ferrochrome prices, will affect the group's income or the value of its holding of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimising return. The group does not hedge its foreign currency exposure on US$ revenue, however, ferrochrome prices are fixed quarterly which provides the group with the ability to negotiate price adjustments taking into account both macro and micro ferrochrome market developments.

*Currency risk*

*Foreign currency*

In the normal course of business, the group enters into transactions denominated in foreign currencies (primarily US$). As a result, the group was subject to transaction and translation exposure from fluctuations in foreign currency exchange rates. The group does not hedge its foreign currency exposure to the ferrochrome price fluctuation risk or Rand:US$ exchange rate. The group endeavours to ensure that its short-term US$ denominated assets equal or exceed its short-term US$ denominated liabilities by actively managing any distributions from and to these accounts.

| | 31 December **2011** US$ '000 | 31 December **2010** US$ '000 |
|---|---|---|
| **Exposure to currency risk** | | |
| The group's exposure to foreign currency risk is as follows: | | |
| Trade receivables | 48 541 | 75 379 |
| Trade receivables sold | (20 896) | (26 949) |
| CFC account | 7 815 | 26 825 |
| Net exposure | 35 460 | 75 255 |

| | Average rate | | Reporting date spot rate | |
|---|---|---|---|---|
| | **2011** | **2010** | **2011** | **2010** |
| The following exchange rates applied during the year | | | | |
| Rand: United States Dollar | 7.26 | 7.32 | 8.08 | 6.63 |

## 20. Financial instruments (continued)

### 20.3 Market risk (continued)

*Currency risk (continued)*

*Sensitivity analysis*

A 10 percent (strengthening)/weakening of the rand against the US$ at 31 December 2011 would have (decreased)/increased equity and profit before tax by R29m. A 10 percent (strengthening)/weakening of the rand at 31 December 2010 against the US$ would have (decreased)/increased equity and (increased)/decreased loss by R50m. This analysis assumes that all other variables, in particular interest rates, remain constant. This sensitivity does not represent the statement of comprehensive income impact that would be expected from a movement in foreign currency exchange rates over the course of a period of time.

*Interest rate risk*

The group adopts a policy of ensuring that between 40 to 60 percent of the interest rates on borrowings are on a fixed rate basis to minimise its exposure to changes in interest rates. This is achieved by fixing the interest rate with the lender, or through the use of interest rate swaps.

*Profile*

At the reporting date, the interest rate profile of the group's interest-bearing financial instruments was:

| | 2011 | | 2010 | |
|---|---|---|---|---|
| | Average interest rate % | Carrying amount R'000 | Average interest rate % | Carrying amount R'000 |
| **Fixed rate instruments** | | | | |
| ABSA Bank Limited | 12.41 | (125 000) | 12.41 | (125 000) |
| **Variable rate instruments** | | | | |
| ABSA Bank Limited | 7.4 | (175 500) | 8.37 | (175 000) |
| Finance leases – plant and equipment | 14.50 | (12 786) | 14.25 | (13 617) |
| Cash and cash equivalents | | | | |
| – local currency | 4.75* | 157 310 | 3.96* | 142 939 |
| – foreign currency | 0.14** | 63 149 | 0.08** | 177 785 |
| | | 32 173 | | 132 107 |

* *Cash balances in local currency receive interest as follows:*

- *– The Venture: prime less 4.15%*
- *– The company and Merafe Ferrochrome:*
  - *Call deposits: daily call deposit rates. At year end the call deposit rate was 5%*
  - *Current account balances*
    - *– favourable: 0.1%*
    - *– unfavourable: prime*

    *At year end prime was 9%*
  - *Prudential, Investec and Nedbank: effective daily rates. The average rate was 4.75%*

** *Cash balances in foreign currency bear interest on average of 0.14%*

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

## 20. Financial instruments (continued)

### 20.3 Market risk (continued)

**31 December 2011**
An increase in interest rates of 100 basis points at the reporting date would have increased profit before taxation and increased equity by R1.2m. A decrease in interest rates of 100 basis points at the reporting date would have decreased profit before taxation and decreased equity by R1.3m. This analysis assumes that all other variables remain constant.

**31 December 2010**
An increase in interest rates of 100 basis points at the reporting date would have increased profit before taxation and increased equity by R2.4m. A decrease in interest rates of 100 basis points at the reporting date would have decreased profit before taxation and decreased equity by R2.5m. This analysis assumes that all other variables remain constant.

### 20.4 Financial instruments carrying amounts

| | Group | | Company | |
|---|---|---|---|---|
| | **2011** R'000 | **2010** R'000 | **2011** R'000 | **2010** R'000 |
| **Loans and receivables** | 421 818 | 696 602 | 1 341 814 | 1 351 262 |
| Investments | – | – | 1 187 655 | 1 264 957 |
| Trade and other receivables (excluding prepayments and VAT) | 201 359 | 375 878 | 33 584 | 1 |
| Trade and other receivables (including prepayments and VAT) | 262 979 | 435 514 | 33 954 | 157 |
| Prepayments | (7 457) | (3 924) | (164) | (129) |
| VAT | (54 163) | (55 712) | (206) | (27) |
| Cash and cash equivalents | 220 459 | 320 724 | 120 575 | 86 304 |
| **Financial liabilities measured at amortised cost** | (612 824) | (631 766) | (39 538) | (1 662) |
| Loans and borrowings (excluding finance lease liabilities) | (300 500) | (300 000) | ( 1 608) | (1 542) |
| Loans and borrowings (including finance lease liabilities) | (313 286) | (313 617) | (1 608) | (1 542) |
| Finance lease liabilities | 12 786 | 13 617 | – | – |
| Trade and other payables (excluding income received in advance, employee benefit accruals and VAT) | (312 324) | (331 766) | (37 930) | (120) |
| Trade and other payables (including income received in advance, employee benefit accruals and VAT) | (375 946) | (408 965) | (51 481) | (11 093) |
| VAT | 3 196 | – | 3 093 | – |
| Employee benefit accruals | 60 426 | 77 199 | 10 458 | 10 973 |
| **Financial liabilities at fair value through profit and loss** | 6 098 | 11 048 | – | – |
| Interest rate swap* | 6 098 | 11 048 | – | – |

* *This relates to level 2 hierarchy per IFRS 7: Financial Instruments: Disclosures. The valuation is based on inputs, other than quoted prices, that are observable either directly or indirectly from prices*

The carrying amount of financial assets and liabilities reflected in the statements of financial position approximate their fair values.

## 21. Capital management

The board's policy is to maintain a strong capital base in order to maintain investor, debt providers and the market confidence in the business.

The strong capital base should ensure that any organic or acquisitive growth in the business is sustainable and provides a cushion for the cyclical nature of a resources business.

The board has actively pursued a policy of debt reduction and its objective is to maintain its gearing level to a maximum of 25% versus equity, excluding cash balances at year end. At year end, the gearing level excluding cash balances was 11% (31 December 2010: 12%), whereas if cash balances are included, the net gearing is 3% (31 December 2010: 0%).

As the required gearing level has been achieved, the board will focus on balancing the requirement to pay dividends, whilst at the same time ensuring that there is sufficient capital in the business to see the company through the continued global economic uncertainty, to fund working capital, to fund our expansionary capital projects and to fund organic growth opportunities in the business.

When analysing growth opportunities, the board seeks to obtain a minimum internal rate of return of 20%.

Neither the company nor any of its subsidiaries are subject to externally imposed capital requirements with the exception of the capital requirements imposed by ABSA Capital (refer Note 9.2).

## 22. Related parties

| Identity of the related party | Relationship | Transactions and balances |
|---|---|---|
| The Venture | In July 2004, Xstrata and Merafe Ferrochrome and Mining Proprietary Limited pooled and shared ferrochrome assets to form the Xstrata-Merafe Chrome Venture | Refer Note 22.2 for the amounts that are included in the consolidated financial statements of the group. |
| Merafe Ferrochrome and Mining Proprietary Limited | Merafe Ferrochrome and Mining Proprietary Limited is a wholly-owned subsidiary of Merafe Chrome and Alloys Proprietary Limited | Merafe Resources Limited charges Merafe Ferrochrome and Mining Proprietary Limited a management fee for strategically managing the pooling and sharing venture |
| Merafe Chrome and Alloys Proprietary Limited | Merafe Chrome and Alloys Proprietary Limited is a wholly-owned subsidiary of Merafe Resources Limited | A loan account is recognised with Merafe Resources Limited and Merafe Ferrochrome and Mining Proprietary Limited |
| Horizon Nature Conservation Trust | The Trust, which was registered on 15 July1998, was established to provide funds for the rehabilitation of land involved in any prospecting or mining operations of Merafe Ferrochrome and Mining Proprietary Limited's Horizon mine and to discharge any liability which may arise in terms of the Atmospheric Pollution Prevention Act of 1965, the Environment Conservation Act, No 73 of 1989, the Minerals Act, No 50 of 1991, the Water Act, No 54 of 1956 and any such other legislation as may be enacted in the future | No transactions occurred during the year |

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

## 22. Related parties (continued)

| Identity of the related party | Relationship | Transactions and balances |
|---|---|---|
| Merafe Manganese Proprietary Limited | Merafe Manganese Proprietary Limited is a wholly owned subsidiary of Merafe Resources Limited | No transactions occurred during the year |
| Merafe Coal Proprietary Limited | Merafe Coal Proprietary Limited is a wholly owned subsidiary of Merafe Resources Limited | No transactions occurred during the year |
| South African Chrome and Alloys Proprietary Limited | South African Chrome and Alloys Proprietary Limited is a wholly-owned subsidiary of Merafe Resources Limited | No transactions occurred during the year |
| South African Ferrochrome and Mining Proprietary Limited | South African Ferrochrome and Mining Proprietary Limited is a wholly-owned subsidiary of Merafe Resources Limited | No transactions occurred during the year |
| PSV Resources Kroondal Proprietary Limited | Merafe Ferrochrome and Mining Proprietary Limited owns 50% of the issued shares of PSV Resources Kroondal Proprietary Limited | No transactions occurred during the year |
| PSV Resources Marikana Proprietary Limited | Merafe Ferrochrome and Mining Proprietary Limited owns 26% of the issued share capital of PSV Resources Marikana Proprietary Limited | No transactions occurred during the year |
| PSV Resources Waterval Proprietary Limited | Merafe Ferrochrome and Mining Proprietary Limited owns 20.5% of the issued share capital of PSV Resources Waterval Proprietary Limited | No transactions occurred during the year |
| Merafe Kroondal Rehabilitation Trust | The Trust, which was registered on 31 May 2006, was established to provide funds for the rehabilitation of land involved in any prospecting or mining operations of Merafe Ferrochrome and Mining Proprietary Limited's share of the Kroondal mine and to discharge any liability which might arise in terms of the Atmospheric Pollution Prevention Act of 1965, the Environment Conservation Act, No 73 of 1989, the Minerals Act, No 50 of 1991, the Water Act, No 54 of 1956 and any such other legislation as may be enacted in the future. The environmental obligations and corresponding liability remains the sole responsibility of the Venture | No transactions occurred during the year |

## 22. Related parties (continued)

| Identity of the related party | Relationship | Transactions and balances |
|---|---|---|
| Merafe Resources Limited Share Incentive Scheme Trust | The Trust was established for the purpose of implementing the company's share incentive scheme in 1999. The trust operates and administers any share options which the company may grant to participants | No transactions occurred during the year |
| Industrial Development Corporation of South Africa Limited (IDC) | The IDC holds 21.9% of the issued share capital of Merafe Resources Limited and has the ability to exercise significant influence over Merafe Resources Limited as a result of their shareholding | The IDC received the non-executive directors' fees for M Mosweu and M Mamathuba as disclosed in Note 22.1 |
| Royal Bafokeng Resources Holdings Proprietary Limited (RBRH) | RBRH holds 28.9% of the issued share capital of Merafe Resources Limited and has the ability to exercise significant influence over Merafe Resources Limited as a result of their shareholding | No transactions occurred during the year |
| C Molefe, M Mamathuba, M Mosweu, BN Majova, Z van der Walt, A Mngomezulu, K Nondumo, M Salanje, S Phiri, ZJ Matlala, B McBride, SP Elliot | Directors of Merafe Resources Limited | Refer to Note 22.1 |

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

## 22. Related parties (continued)

### 22.1 Transactions with key management personnel

Key management personnel of the company and their immediate families control 0.65% (31 December 2010: 0.65%) of the voting shares of the company. In addition to their salaries, the company also contributes to a provident fund (defined contribution plan) and medical aid fund on their behalf. Executive directors also participate in the company's share incentive schemes (refer note 8).

| | Company | |
|---|---|---|
| | **2011** R'000 | **2010** R'000 |
| **Directors' fees** | | |
| **Non-executive directors** | | |
| C Molefe | (661)[9] | (321) |
| A Mngomezulu | (384)[9] | (94) |
| M Mamathuba | (251)[9] | (117) |
| BN Majova | (476)[9] | (191) |
| ZJ Matlala[1] | – | (140) |
| T Ramantsi[2] | – | (26) |
| C Fauconnier[3] | – | (54) |
| S Phiri[4] | – | (26) |
| M Mosweu[5] | (248)[9] | – |
| Z van der Walt[6] | (124)[9] | – |
| K Nondumo[7] | (398)[9] | – |
| M Salanje[8] | (444)[10] | – |
| | (2 986) | (969) |

*1 ZJ Matlala was appointed as Chief Financial Officer effective 1 October 2010*
*2 T Ramantsi resigned on 19 November 2010 as a non-executive director*
*3 C Fauconnier resigned on 5 May 2010 as a non-executive director*
*4 S Phiri resigned as Chief Executive Officer and continued as a non-executive director whilst opting to receive no director fees*
*5 M Mosweu was appointed on 2 March 2011*
*6 Z van der Walt was appointed on 1 July 2011*
*7 K Nondumo was appointed on 1 December 2010*
*8 M Salanje was appointed on 1 December 2010*
*9 Relates to fees received for services as directors*
*10 Relates to fees received of R397 000 for services as a director and R47 000 for other services*

| | | |
|---|---|---|
| **Executive directors and Prescribed officers** | | |
| **SP Elliot** | | |
| Salary | (2 748) | (2 493) |
| Bonus | (1 865)[a] | (3 419)[b] |
| Fringe benefits | (310) | (198) |
| Provident fund contributions | (412) | (374) |
| Exercise of share options | (4 875) | – |
| | (10 210) | (6 484) |
| Cost of share options exercised | 6 043 | – |
| Proceeds on disposal of share options exercised | (10 918) | – |

## 22. Related parties (continued)

### 22.1 Transactions with key management personnel (continued)

| | Company | |
|---|---|---|
| | **2011** R'000 | **2010** R'000 |
| **ZJ Matlala** | | |
| Salary | (2 577) | (601) |
| Bonus | (1 544)[a] | (552)[b] |
| Fringe benefits | (242) | (38) |
| Provident fund contributions | (387) | (90) |
| | (4 750) | (1 281) |
| **B McBride** | | |
| Salary | (2 513) | (2 315) |
| Bonus | (1 255)[a] | (2 299)[b] |
| Fringe benefits | (268) | (309) |
| Provident fund contributions | (377) | (347) |
| Exercise of share options | (2 212) | – |
| | (6 625) | (5 270) |
| Cost of share options exercised | 3 079 | – |
| Proceeds on disposal of share options exercised | (5 291) | – |
| **S Phiri** | | |
| Salary | – | (994) |
| Bonus | – | – [b] |
| Fringe benefits | – | (48) |
| Provident fund contributions | – | (91) |
| Exercise of share options | – | (13 032) |
| | – | (14 165) |
| Cost of share options exercised | – | (8 088) |
| Proceeds on disposal of share options exercised | – | (21 120) |
| **K Bissessor** | | |
| Salary | (891) | (784) |
| Bonus | (483)[a] | (870)[b] |
| Fringe benefits | (89) | (54) |
| Provident fund contributions | (134) | (118) |
| | (1 597) | (1 826) |
| **A Mahendranath** | | |
| Salary | (504) | (456) |
| Bonus | (168)[a] | (483)[b] |
| Fringe benefits | (99) | (13) |
| Provident fund contributions | (76) | (68) |
| | (847) | (1 020) |

*a Relates to the 2011 financial year. 75% of the bonus will be paid in March 2012 and 25% will be payable in December 2012, provided the executive is still in the employ of the company.*
*b Relates to the 2010 financial year. 75% of the bonus was paid in March 2011 and 25% was paid in December 2011.*
*Note: Fringe benefits include an expense in respect of medical aid.*

# Notes to the annual financial statements (continued)

for the year ended 31 December 2011

## 22. Related parties (continued)

### 22.1 Transactions with key management personel (continued)

| | 2011 R'000 | 2010 R'000 |
|---|---|---|
| Total key management personnel remuneration | (24 029) | (30 070) |
| Short-term employee benefits | (16 942) | (17 038) |
| Share options | (7 087) | (13 032) |

There are no fixed term director service contracts and there are no director service contracts with provisions for predetermined compensation on termination of the contracts in excess of one year's salary and benefits.

### 22.2 Transactions with the Xstrata-Merafe Chrome Venture

The Venture resulted in Xstrata South Africa Proprietary Limited and Merafe Ferrochrome and Mining Proprietary Limited ("Merafe Ferrochrome") pooling and sharing their ferrochrome assets. While Merafe Ferrochrome's assets form part of the Venture, Merafe Ferrochrome retains ownership of its assets and is closely involved in the Venture's operations through the Chrome Executive Committee, joint board and sub-committees (Treasury, Audit and Risk, Transformation, Sustainable Development and Health and Safety) formed to oversee the combined operation of both companies. The group receives 20.5% of the Venture's earnings before interest, tax, depreciation and amortisation (EBITDA) and owns 20.5% of the Venture's working captial.
Included in the consolidated financial statements are the following items that represent the group's share of the working capital and EBITDA of the Venture:

| | Year ended 31 December 2011 R'000 | Year ended 31 December 2010 R'000 |
|---|---|---|
| Inventories | 1 075 534 | 865 960 |
| Trade and other receivables | 258 806 | 427 902 |
| Bank and cash | 93 074 | 184 621 |
| Finance leases | (12 786) | (13 617) |
| Provisions | (48 396) | (39 439) |
| Trade and other payables | (323 111) | (389 360) |
| Net assets | 1 043 121 | 1 036 067 |
| Revenue | 2 426 755 | 2 558 441 |
| Foreign exchange losses | 80 930 | (41 215) |
| Operating expenses: the Venture | (2 043 347) | (1 953 699) |
| EBITDA | 464 338 | 563 527 |

## 23. Contingencies

To the best of our knowledge and belief, other than as set out elsewhere in this report, there are no contingencies which may materially affect the financial position of the group.

| | Group | | Company | |
|---|---|---|---|---|
| | **2011** R'000 | **2010** R'000 | **2011** R'000 | **2010** R'000 |
| **24. Operating leases** | | | | |
| Non-cancellable operating lease rentals are payable as follows: | | | | |
| Less than one year | (1 492) | (961) | (749) | (795) |
| Between one and five years | (2 345) | (1 081) | (1 873) | (273) |
| Greater than five years | (2 737) | (2 603) | – | – |
| | (6 574) | (4 645) | (2 622) | (1 068) |
| The group leases various items of office equipment, mine properties and buildings. The lease payments escalate between 7% to 10% per annum for both the prior and current year. | | | | |
| **25. Capital commitments** | | | | |
| The group's capital commitments at year end were: | | | | |
| – contracted for but not provided for | 278 187 | 21 906 | – | – |
| – authorised but not contracted for | 793 265 | 353 379 | – | – |
| | 1 071 452 | 375 285 | – | – |

## 26. Dividends per share

At the board meeting on 25 February 2011, a final dividend of 2 cents per share amounting to R49.5m was approved. The secondary tax on companies (STC) on the dividend amounted to R4.9m, before taking the deferred tax asset into account.
A deferred tax asset has not been recognised on unutilised STC credits at 31 December 2010 and 31 December 2011.

# Shareholder information

As at 31 December 2011

| | Number of members | % of all members | Number of shares held | % of issued capital |
|---|---|---|---|---|
| **1. Analysis of shareholdings** | | | | |
| Range | | | | |
| 1 – 1 000 | 1 243 | 12.94 | 724 598 | 0.03 |
| 1 001 – 5 000 | 2 384 | 24.83 | 7 354 835 | 0.29 |
| 5 001 – 10 000 | 1 668 | 17.37 | 13 873 475 | 0.56 |
| 10 001 – 1 00 000 | 3 488 | 36.33 | 121 971 207 | 4.89 |
| 100 001 – 1 000 000 | 675 | 7.03 | 198 108 524 | 7.95 |
| 1 000 001 and more | 144 | 1.50 | 2 151 188 755 | 86.28 |
| **Totals** | **9 602** | **100.00** | **2 493 221 394** | **100.00** |
| **2. Distribution of shareholders** | | | | |
| **Category** | | | | |
| Diluted funds | 43 | 0.45 | 291 200 517 | 11.68 |
| Pension funds | 68 | 0.71 | 155 623 701 | 6.24 |
| Private companies | 149 | 1.55 | 855 688 327 | 34.32 |
| Individuals | 8 443 | 87.93 | 292 251 775 | 11.72 |
| Close corporations | 144 | 1.50 | 6 467 309 | 0.26 |
| Other corporations | 634 | 6.60 | 619 758 687 | 24.86 |
| Nominees and other institutions | 79 | 0.82 | 63 769 567 | 2.56 |
| Banks | 42 | 0.44 | 208 461 511 | 8.36 |
| **Totals** | **9 602** | **100.00** | **2 493 221 394** | **100.00** |
| **3. Holders holding 5% or more of shares in issue** | | | | |
| **Name** | | | | |
| Royal Bafokeng Resources Holdings | | | 720 163 887 | 28.88 |
| Industrial Development Corporation | | | 546 830 100 | 21.93 |
| JP Morgan | | | 131 888 918 | 5.29 |
| **Shareholder spread** | | | | |
| **Public** | 9 593 | 99.91 | 1 078 241 707 | 43.25 |
| **Non-public** | 9 | 0.09 | 1 414 979 687 | 56.75 |
| Directors | 5 | 0.05 | 11 417 225 | 0.46 |
| Associates | 1 | 0.01 | 4 679 557 | 0.19 |
| Royal Bafokeng Resources Holdings | 1 | 0.01 | 720 163 887 | 28.88 |
| Industrial Development Corporation | 1 | 0.01 | 546 830 100 | 21.93 |
| JP Morgan | 1 | 0.01 | 131 888 918 | 5.29 |
| **Totals** | **9 602** | **100.00** | **2 493 221 394** | **100.00** |

# JSE Limited Share Statistics

As at 31 December 2011

| Share statistics | |
|---|---|
| **Share price** (cents) | |
| High | 173 |
| Low | 83 |
| Closing price as at 31 December 2011 | 92 |
| **Shares traded** | |
| Volume of shares traded | 819 524 413 |
| Value of shares | R1 009 000 693 |
| Volume traded as a percentage of weighted average shares in issue | 33% |
| **Market capitalisation** | |
| As at 31 December 2011 | R2 293 763 682 |
| **Shares in issue as at 31 December 2011** | 2 493 221 394 |

# Shareholders' diary

## Meetings

Annual general meeting for the 2011 financial year to be held on 4 May 2012

## Reports

Interim reports for the six months to 30 June 2012 to be released in August 2012
Annual results for the twelve months to 31 December 2012 to be released in March 2013
Annual results for the twelve months to 31 December 2012 to be published in March 2013

# Notice of the annual general meeting

for the year ended 31 December 2011

## Merafe Resources Limited

(Incorporated in the Republic of South Africa)
(Registration number 1987/003452/06)
ISIN: ZAE000060000
Share code: MRF
(hereinafter referred to as Merafe Resources or the company)

Notice is hereby given that the 25th (twenty-fifth) annual general meeting of shareholders of the company will be held at Fairlawns Hotel, 1 Alma Road (off Bowling Avenue), Morningside Manor, Ext 6, Sandton at 11:00 am on Friday, 4 May 2012 (Notice), for the purpose of transacting the business as outlined in this Notice, and to consider and, if deemed fit, to pass, with or without modification, the ordinary and special resolutions outlined below.

## Record dates

Record date to receive the Notice:
Friday, 23 March 2012

Last date to trade to be eligible to vote:
Thursday, 19 April 2012

Record date to be eligible to vote:
Thursday, 26 April 2012

Last date for lodging forms of proxy (by 11:00 am):
Wednesday, 2 May 2012

## Interpretation and Definitions

For the avoidance of doubt and to the extent that the terms have not been defined in the integrated annual report for the year ended 31 December 2011 (integrated annual report), reference in this Notice to the following words and expressions:

- **the "Companies Act"** or **"new Companies Act"** means the Companies Act 71 of 2008 (as amended);
- **"Group"** means the company and all its subsidiaries at the date of this Notice;
- **"Listings Requirements"** means the Listings Requirements of the JSE Limited; and
- **"King III"** means the King Report III on Corporate Governance for South Africa.

Any words and expressions defined in the Companies Act or the Listings Requirements, as the case may be, which are not defined in this Notice, shall bear the same meanings in this Notice as those ascribed to them in the Companies Act or the Listings Requirements, as the case may be.

## Memorandum of Incorporation

Until the new Companies Act came into effect on 1 May 2011, the constitutional documents of the company comprised the memorandum of association and its articles of association. When the new Companies Act came into effect, the memorandum and articles of association of the company were automatically converted into the Company's Memorandum of Incorporation (MoI). In accordance with the terminology of the new Companies Act, and for consistency of reference in this Notice, the acronym "MoI" or phrase "memorandum of incorporation" is used to refer to the company's memorandum of association and articles of association. Accordingly, all references to a provision in the company's MoI or memorandum of incorporation in this Notice as well as all relevant ordinary and special resolutions contained in this Notice refer to provisions of the MoI or memorandum of incorporation that was previously named the company's articles of association.

## Section A: Ordinary resolutions

For ordinary resolutions 1 to 7 (inclusive) to be duly adopted, the support of more than 50% (fifty percent) of the voting rights exercised on each ordinary resolution by shareholders present or represented by proxy at the annual general meeting and entitled to exercise voting rights on the relevant resolution, must be exercised in favour of such resolution.

1. Ordinary Resolution Number 1: Adoption of annual financial statements.

   "**Resolved that** the group audited annual financial statements, including the directors' report, auditor's report and the report by the Audit and Risk Committee, for the financial period ended 31 December 2011, be and are hereby received, considered and approved."

   *Note to Ordinary Resolution Number 1:*

   - In terms of the provisions of section 30(3)(d) of the Companies Act, a company's annual financial statements must be presented to its shareholders at the first shareholders' meeting after the statements have been approved by the board of directors of the company.

2. Ordinary Resolution Number 2: Re-appointment of retiring directors.

   "**Resolved that**, by separate ordinary resolutions numbered 2.1 to 2.4 (inclusive), the following directors, who, in terms of article 93 of the company's memorandum of incorporation, retire by rotation at this annual general meeting, and, being eligible, stand and offer themselves for re-election, be and are hereby re-elected:

   2.1 Ms Zanele Joyce Matlala;

   2.2 Mr Chris Molefe;

   2.3 Mr Abiel Mngomezulu; and

   2.4 Mr Mfanyana Salanje."

   *Notes to Ordinary Resolution Number 2:*

   - Resolutions numbered 2.1 to 2.4 (inclusive) above constitute separate and divisible ordinary resolutions and will be considered by separate vote and the re-appointments which they represent have received the support of the Nominations Committee.
   - The reason for resolutions numbered 2.1 to 2.4 (inclusive) is that in terms of the provisions of article 93 of the company's MoI, one-third of the directors, or if their number is not a multiple of three, then the number nearest to, but not less than one-third are required to retire at each annual general meeting and, being eligible, may offer themselves for re-election.

- Brief biographies of each of the directors of the company standing for re-election are set out on pages 26 and 27 of the integrated annual report.

3. Ordinary Resolution Number 3: Confirmation of appointment of non-executive directors, appointed during the financial year ended 31 December 2011.

"**Resolved that**, by separate ordinary resolutions numbered 3.1 and 3.2, the appointment of the following individuals appointed by the board of directors of the company (the "board") as non-executive directors to the board, namely,

3.1 Ms Mpho Mosweu^, appointed with effect from 2 March 2011; and

3.2 Mr Zacharias van der Walt*, appointed with effect from 1 July 2011,

be and is hereby confirmed in accordance with the company's memorandum of incorporation to continue in such capacity."

** Appointed as an independent non-executive director.*

*^ Appointed as a non-independent non-executive director*

*Notes to Ordinary Resolution Number 3:*

- Resolutions numbered 3.1 and 3.2 above constitute separate and divisible ordinary resolutions and will be considered by separate vote.
- The reason for resolutions numbered 3.1 and 3.2 is that in terms of the provisions of article 80 of the company's MoI, shareholders are required to ratify newly appointed directors at the next annual general meeting of the company.
- Brief biographies of both of these directors are set out on pages 26 and 27 of the integrated annual report.

4. Ordinary Resolution Number 4: Appointment of members to the Audit and Risk Committee for the forthcoming financial year.

"**Resolved that** the following members, by separate ordinary resolutions numbered 4.1 and 4.4 (inclusive), being eligible and offering themselves for re-election, be and are hereby appointed as members of the Audit and Risk Committee for the financial year ending 31 December 2012:

4.1 Mr Mfanyana Salanje^;

4.2 Mr Abiel Mngomezulu^;

4.3 Ms Karabo Nondumo; and

4.4 Mr Zacharias van der Walt*.

*^ Subject to his election as a director pursuant to Ordinary Resolution Number 2*

** Subject to his election as a director pursuant to Ordinary Resolution Number 3.2"*

*Notes to Ordinary Resolution Number 4:*

- Resolutions numbered 4.1 to 4.4 (inclusive) above constitute separate and divisible ordinary resolutions and will be considered by separate vote.
- The reason for resolutions numbered 4.1 to 4.4 (inclusive) is that in terms of the provisions of section 94(2) of the Companies Act, a company shall at every annual general meeting elect an audit and risk committee comprising at least three members.
- The Nomination Committee conducted an assessment of the performance and independence of each of the directors proposed to be members of the Audit Committee and the board considered and accepted the findings of the Nomination Committee. The board is also satisfied that the proposed members meet the requirements of section 94(4) of the Companies Act, that they are independent according to King III and that they possess the required qualifications and experience as prescribed in Regulation 42 of the Companies Regulations, 2011 which requires that at least one-third of the members of the company's Audit Committee at any particular time must have the academic qualifications or experience in economics, law, corporate governance, finance, accounting, commerce, industry, public affairs or human resources management.
- Brief biographies of each of the independent non-executive directors proposed to be appointed to the Audit and Risk Committee appear on pages 26 and 27 of the integrated annual report.

5. Ordinary Resolution Number 5: Re-appointment of external auditors of the company.

"**Resolved that** the reappointment of KPMG Inc. as the external auditors of the company, and being independent from the company, be and is hereby, approved and Mr Riaan Davel be and is hereby appointed as the designated audit partner for the financial year ending 31 December 2012, and he is to remain in office until the conclusion of the next annual general meeting."

*Notes to Ordinary Resolution Number 5:*

- The reason for this resolution is that section 90(1) of the Companies Act requires a company to appoint an auditor at every annual general meeting to hold office from the conclusion of that meeting until the conclusion of the next annual general meeting of the company.
- In terms of section 90 of the Companies Act, the duty to nominate auditors for appointment lies with the Audit and Risk Committee. The Audit and Risk Committee conducted an assessment of the performance and the independence of the external auditors and considered whether or not the external auditors comply with the requirements of section 90(2) and (3) of the Companies Act and section 22 of the Listings Requirements, and the board considered and accepted the findings. The board is satisfied that the proposed external auditors and Mr Riaan Davel comply with the relevant provisions of the Companies Act and the Listings Requirements.

# Notice of the annual general meeting (continued)

for the year ended 31 December 2011

6. Ordinary Resolution Number 6: Placing the authorised but unissued shares under the control of the directors.

"**Resolved that**, 10% (ten percent) or 100 677 860 ordinary shares of the authorised but unissued share capital of the company be and are hereby, placed under the control of the directors of the company until the next annual general meeting, with the authority to allot and issue all or part thereof on such terms and conditions as they deem fit, subject to the provisions of the Companies Act 71 of 2008, the company's memorandum of incorporation and the Listings Requirements of the JSE Limited."

*Notes to Ordinary Resolution Number 6:*

- Section 38 of the Companies Act allows the board of a company to resolve to issue shares of the company at any time and to the extent that the shares have been authorised by or in terms of the company's memorandum of incorporation. However the company's MoI provides (i) in terms of article 2, that the shareholders of the company must allot and issue unissued shares or (ii) in terms of article 3, that the shareholders may delegate the power conferred upon them by article 2 to the directors of the company.
- In terms of article 3, read with the Listings Requirements, any further allotments and issues of authorised but unissued shares in the company have to be authorised by shareholders notwithstanding that the new Companies Act effectively grants a general authority to the directors of the company to allot and issue such shares. The authority above will be subject to the Companies Act and the Listings Requirements.

7. Ordinary Resolution Number 7: Issue of shares under the Merafe Resources Limited Share Incentive Scheme.

"**Resolved that**, subject to (i) the adoption of Ordinary Resolution Number 6, (ii) the limitations set forth in Ordinary Resolution Number 8 and (iii) the conditions contained in the Merafe Resources Limited Share Incentive Scheme document approved on 13 April 2010 (Merafe Resources Limited Share Incentive Scheme), the directors of the company be and are hereby, authorised, until the next annual general meeting, to allot and issue shares in terms of the Merafe Resources Limited Share Incentive Scheme, as approved by shareholders and referred to on pages 150 to 159 of the integrated annual report, subject at all times to the provisions of the company's memorandum of incorporation, the Companies Act No 71 of 2008 and the Listings Requirements of the JSE Limited, each as presently constituted and as amended from time to time."

**Section B: Ordinary resolutions subject to the JSE Listings Requirements.**

For Ordinary Resolution Number 8 to be adopted, and in terms of the Listings Requirements, a 75% (seventy-five percent) majority of the votes cast by shareholders present in person or represented by proxy at the annual general meeting and entitled to exercise voting rights on the resolution must vote in favour of such resolution.

8. Ordinary Resolution Number 8: General authority to issue shares for cash.

"**Resolved that**, subject to the provisions of the company's memorandum of incorporation, the Companies Act No 71 of 2008 and the Listings Requirements of the JSE Limited, each as presently constituted and as amended from time to time, the directors be, and are hereby, given general authority to issue authorised but unissued ordinary shares for cash, as and when suitable situations arise, on such terms and conditions as the directors may from time to time in their sole discretion determine, and provided that:

(a) this authority shall not extend beyond the next annual general meeting or 15 (fifteen) months from the date of the annual general meeting, at which this resolution is proposed, and if deemed fit, adopted, whichever date is the earlier;

(b) the ordinary shares must be issued only to public shareholders (as defined in the Listings Requirements of the JSE Limited) and not to related parties (as defined in the Listings Requirements of the JSE Limited);

The ordinary shares for cash to be issued,

i) in the aggregate in any one financial year may not exceed 10% of the company's ordinary shares in issue;

ii) will be aggregated with any securities that are compulsorily convertible into ordinary shares, and, in the case of the issue of compulsorily convertible securities, aggregated with the securities of that class into which they are compulsorily convertible;

(iii) as regards the number of shares which may be issued (the 10% number), shall be based on the number of ordinary shares in issue added to those that may be issued in future (arising from the conversion of options/convertible securities), at the date of such application, (1) less any ordinary shares issued, or to be issued in the future arising from options/convertible securities issued, during the current financial year, plus (2) any ordinary shares to be issued pursuant to:

aa. a rights issue which has been announced, is irrevocable and is fully underwritten; or

bb. acquisition (in respect of which final terms have been announced) may be included as though they were securities in issue at the date of application; and

(iv) that, in determining the price at which an issue of shares will be made in terms of this authority, the maximum discount permitted will be 10% (ten percent) of the weighted average traded price on the JSE Limited of the company's ordinary shares over the 30 (thirty) business days prior to the date that the price of the issue is agreed between the company and the party subscribing for the securities;

(v) that a press announcement giving full details, including the effect on the net asset value and earnings per share, will be published at the time of any issue representing, on cumulative basis within one financial year, 5% (five percent) of the company's issued share capital."

*Notes to Ordinary Resolution Number 8:*

- Under the Listings Requirements applicable to general issues of shares for cash, this ordinary resolution must be approved by a 75% (seventy five percent) majority of the votes cast by shareholders present or represented by proxy and entitled to exercise voting rights on such resolution, at the annual general meeting at which it is tabled.
- Further, in terms of section 14.10 in the Listings Requirements, equity securities held by a share trust or scheme will not have their votes at general or annual meetings taken into account for purposes of resolutions proposed and adopted in terms of the Listings Requirements.

## Section C: Ordinary resolution of a non-binding nature.

For Ordinary Resolution Number 9 to be duly adopted, the support of more than 50% (fifty percent) of the voting rights exercised on each ordinary resolution by shareholders present or represented by proxy at the annual general meeting and entitled to exercise voting rights on the relevant resolution, must be exercised in favour of such resolution.

9. Ordinary Resolution Number 9: Non-binding advisory vote on remuneration policy.

"**Resolved that** the remuneration policy of the company, as set out in the remuneration report on pages 38 to 40 of the integrated annual report, be and is hereby endorsed by way of a non-binding advisory vote."

*Notes to Ordinary Resolution Number 9:*

- Chapter 2 of King III dealing with boards and directors requires companies to table their remuneration policy every year to shareholders for a non-binding advisory vote at the company's annual general meeting. This vote enables shareholders to express their views on the remuneration policies adopted and on their implementation.
- The company's remuneration report is contained on pages 38 to 40 of the integrated annual report.
- This resolution is of an advisory nature only and failure to pass this resolution will therefore not have any legal consequences relating to existing arrangements. However, the board of directors of the company will take the outcome of the vote into consideration when considering the company's remuneration policy.

## Section D: Special resolutions.

For Special Resolutions Numbers 1 and 3 to be adopted, a majority of 75% (seventy-five percent) of the voting rights exercised on each special resolution must be exercised in favour of such resolution by shareholders present or represented by proxy at the annual general meeting and entitled to exercise voting rights on the resolution concerned.

10. Special Resolution Number 1: Approval of directors' fees for the previous financial year (2011).

"**Resolved that** the directors' fees paid by the company for the financial year ending 31 December 2011, as set out on page 182 of the integrated annual report, be and are hereby approved."

*Note to Special Resolution Number 1:*

- The reason for this resolution is to approve the fees paid to directors for the financial year ending 31 December 2011 in accordance with section 66(9) of the Companies Act.

# Notice of the annual general meeting (continued)

for the year ended 31 December 2011

11. Special Resolution Number 2: Approval of non-executive directors' fees.

"**Resolved that** the revised fees which will be payable to the non-executive directors for their services to the board and committees of the board with effect from 1 January 2012 as set out on page 40 of the integrated annual report, be and are hereby approved."

*Notes to Special Resolution Number 2:*

- The reason for and the effect of this resolution is to approve the remuneration payable by the company to its non-executive directors for their services as non-executive directors of the company for the financial year ending 31 December 2012.
- In terms of the provisions of section 66(8) and section 66(9) of the Companies Act, remuneration may only be paid to the directors for their services as directors in accordance with the company's memorandum of incorporation and only by a special resolution approved by the shareholders within the previous two years.

12. Special Resolution Number 3: Loans or other financial assistance to related or inter-related companies.

"**Resolved that,** subject to compliance with the requirements of the company's memorandum of incorporation, the Companies Act and the Listings Requirements of the JSE Limited, each as presently constituted and as amended from time to time, the board of directors of the company (the board) be and is hereby authorised, for a period of two years from the date of this annual general meeting, on such terms and conditions that the board may determine, to provide any direct or indirect financial assistance (financial assistance will herein have the meaning attributed to such terms in section 45(1) of the Companies Act) to a related or inter-related company or corporation (or to a member of a related or inter-related corporation) or any person related to any of them."

*Notes to Special Resolution Number 3:*

- In terms of section 45 of the Companies Act, a company is required to obtain shareholder approval, by way of passing a special resolution for the provision by it of direct or indirect financial assistance to a related or inter-related company or corporation, or any person related to any such company or corporation.
- The company has at all relevant times and prior to the effective date of the new Companies Act being 1 May 2011, provided financial assistance to its subsidiaries and related and inter-related companies. To facilitate the achievement by the group of its strategic goals, it is necessary that this assistance continues. The main purpose for this authority is therefore to grant the board of directors the authority to authorise the company to provide inter-group loans and other financial assistance for purposes of funding the activities of the group. However, in accordance with the provisions of section 45 of the new Companies Act, the board undertakes that it will not adopt a resolution to authorise such financial assistance, unless the board is satisfied that:
  - immediately after providing any direct or indirect financial assistance approved in terms of this resolution, the company would satisfy the solvency and liquidity test as contemplated in section 45(3)(b) of the Companies Act;
  - the terms under which the financial assistance is proposed to be given are or will be fair and reasonable to the company; and
  - written notice of any such resolution by the board of directors of the company shall be given to all shareholders of the company and any trade union representing its employees:
    - within 10 business days after the board adopted the resolution, if the total value of the financial assistance contemplated in that resolution, together with any previous such resolution during the financial year, exceeds 0.1% of the company's net worth at the time of the resolution; or
    - within 30 business days after the end of the financial year, in any other case.

13. Ordinary Resolution Number 10: Authority to sign all documents required to give effect to all resolutions in this Notice.

"**Resolved that** any one of the directors of the company or company secretary be and hereby is authorised to do all such things and sign all documents and procure the doing of all such things and the signature for all such documents as may be necessary or incidental to give effect to all ordinary and special resolutions passed at the annual general meeting."

14. General

To transact such other business that may be transacted at an annual general meeting

15. Actions required by Merafe Resources' shareholders.

15.1 The actions which shareholders of the company are required to take in order to follow their rights, to pass and adopt, with or without modification, the ordinary and special resolutions set out in this Notice are as set out below. If you are in any doubt as to the action you should take in relation to this Notice, please contact your stockbroker, Central Securities Depository Participant (CSDP), legal advisor, accountant, banker or other professional advisor immediately.

15.2 Record dates

15.2.1 The record date in terms of section 59 of the Companies Act for shareholders to be recorded on the securities register of the Company in order to receive notice of the annual general meeting is Friday, 23 March 2012.

15.2.2 The record date in terms of section 59 of the Companies Act for shareholders to be recorded on the securities register of the company in order to be able to attend, participate in and vote at the annual general meeting is Thursday, 26 April 2012.

15.2.3 The last day to trade in the company's shares in order to be recorded on the securities register of the company in order to be able to attend, participate in and vote at the annual general meeting is Thursday 19 April 2012.

15.3 Voting and attendance at the annual general meeting

15.3.1 Shareholders entitled to attend and vote at the annual general meeting may appoint one or more proxies to attend, speak and vote thereat in their stead. A proxy need not be a member of the company. A form of proxy, in which the relevant instructions for its completion are set out, is enclosed for the use of a certified shareholder or own-name registered dematerialised shareholder who wishes to be represented at the annual general meeting. Completion of a form of proxy will not preclude such shareholder from attending and voting at the annual general meeting (in preference of that proxy).

15.3.2 The instrument appointing a proxy and the authority (if any) under which it is signed must reach the registered office of the transfer secretaries or the company's registered office by no later than 11:00 am on Wednesday, 2 May 2012.

15.3.3 Shareholders who have dematerialised their shares, other than those shareholders who have dematerialised their shares with "own name registration", who wish to attend the annual general meeting in person should contact their CSDP or broker, to provide them with the necessary letter of representation in terms of their custody agreement.

15.3.4 Dematerialised shareholders, other than "own-name" registered dematerialised shareholders, who are unable to attend the annual general meeting and who wish to be represented thereat, must provide their CSDP or broker with their voting instructions in terms of the custody agreement entered into between themselves and the CSDP or broker in the manner and time stipulated therein.

15.3.5 In terms of section 14.10 of the Listings Requirements, equity securities held by a share trust or scheme will not have their votes at general or annual meetings taken into account for purposes of resolutions passed or to be passed in accordance with the Listings Requirements. Accordingly, votes cast by the Merafe Resources Limited Share Incentive Scheme (such scheme constituted by the document as approved by shareholders on 13 April 2010) will not have its votes taken into account for purposes of the adoption of such resolutions. For the avoidance of doubt, Ordinary Resolution Number 9 in this Notice is a resolution to be passed in accordance with the requirements of the Listings Requirements.

15.4 Representation by proxy
In compliance with the provisions of section 58(8)(b)(i) of the Companies Act, a summary of the rights of a shareholder to be represented by proxy, as set out in section 58 of the Companies Act, is set out immediately below:

- A shareholder entitled to attend and vote at the annual general meeting may appoint any individual (or two or more individuals) as a proxy or as proxies to attend, participate in and vote at the annual general meeting in the place of the shareholder. A proxy need not be a shareholder of the company.
- A proxy appointment must be in writing, dated and signed by the shareholder appointing a proxy, and, subject to the rights of a shareholder to revoke such appointment (as set out below), remains valid only until the end of the annual general meeting.
- A proxy may delegate the proxy's authority to act on behalf of a shareholder to another person, subject to any restrictions set out in the instrument appointing the proxy.
- The appointment of a proxy is suspended at any time and to the extent that the shareholder who appointed such proxy chooses to act directly and in person in the exercise of any rights as a shareholder.
- The appointment of a proxy is revocable by the shareholder in question cancelling it in writing, or making a later inconsistent appointment of a proxy, and delivering a copy of the revocation instrument to the proxy and to the company. The revocation of a proxy appointment constitutes a complete and final cancellation of the proxy's authority to act on behalf of the shareholder as of the later of (a) the date stated in the revocation instrument, if any; and (b) the date on which the revocation instrument is delivered to the company as required in the first sentence of this paragraph.

# Notice of the annual general meeting (continued)

for the year ended 31 December 2011

15. Actions required by Merafe Resources' shareholders continued

15.4 Representation by proxy continued

- If the instrument appointing the proxy or proxies has been delivered to the company, as long as that appointment remains in effect, any notice that is required by the Companies Act or the company's articles of association to be delivered by the company to the shareholder, must be delivered by the company to (a) the shareholder, or (b) the proxy or proxies, if the shareholder has (i) directed the company to do so in writing; and (ii) paid any reasonable fee charged by the company for doing so.
- Attention is also drawn to the "Notes to the form of proxy".
- The completion of a form of proxy does not preclude any shareholder attending the annual general meeting.

15.5 Identification

In terms of section 63(1) of the Companies Act, any person attending or participating in the annual general meeting must present reasonably satisfactory identification and the person presiding at the general meeting must be reasonably satisfied that the right of any person to participate in and vote (whether as a shareholder or as proxy for a shareholder) has been reasonably verified. A green bar-coded identification document issued by the South African Department of Home Affairs, a driver's licence or a valid passport will be accepted as a form of identification at the annual general meeting.

15.6 Electronic participation

Shareholders (or their proxies) may participate (but not vote) electronically in the annual general meeting. Shareholders (or their proxies) wishing to participate in the annual general meeting electronically should contact the company secretary on ami@meraferesources.co.za or +27 11 783 4780 at least 5 (five) business days prior to the annual general meeting. Access to the meeting by way of electronic participation will be at the shareholder's expense. Only persons physically present at the meeting or represented by a valid proxy shall be entitled to cast a vote on any matter put to a vote of shareholders.

By order of the board of directors

*A. Mahendranath*

Company secretary

# Form of proxy

**Merafe Resources Limited**
(Incorporated in the Republic of South Africa)
(Registration number 1987/003452/06) ISIN: ZAE000060000
Share code: MRF (Merafe Resources or the company)

Only for use by members who have not dematerialised their shares or members who have dematerialised their shares with own name registration. All other dematerialised shareholders must contact their Central Securities Depository Participant (CSDP) or broker to make the relevant arrangements concerning voting and/or attendance at the annual general meeting.

**A shareholder is entitled to appoint one or more proxies (none of whom need to be shareholders of Merafe Resources) to attend, speak and vote or abstain from voting in the place of that shareholder at the annual general meeting.**

Form of proxy for the twenty fifth annual general meeting

I/We (name in block letters)

Of (address)

Being the holder/s of _____ ordinary shares in the company hereby appoint (see note 1)

1. or failing him/her

2. or failing him/her

3. The chairman of the company, or failing him, the chairperson of the annual general meeting, as my/our proxy to vote on my/our behalf at the annual general meeting of the company to be held at Merafe Resources Limited at Fairlawns Hotel, 1 Alma Road (off Bowling Avenue), Morningside Manor, Ext. 6, Sandton at 11:00 am on Friday, 4 May 2012, or at any adjournment thereof.

I/We desire to vote as follows (see note 2):

| | | Number of votes | | |
|---|---|---|---|---|
| | | For | Against | Abstain |
| 1 | Ordinary Resolution Number 1: Adoption of annual financial statements | | | |
| 2 | Ordinary Resolution Number 2: Re-appointment of retiring directors. | | | |
| | 2.1 Ms Zanele Joyce Matlala | | | |
| | 2.2 Mr Chris Molefe; | | | |
| | 2.3 Mr Abiel Mngomezulu | | | |
| | 2.3 Mr Mfanyana Salanje | | | |
| 3 | Ordinary Resolution Number 3: Confirmation of appointment of non-executive directors, appointed during the financial year ended 31 December 2011. | | | |
| | 3.1 Ms Mpho Mosweu | | | |
| | 3.2 Mr Zacharias van der Walt | | | |
| 4 | Ordinary Resolution Number 4: Appointment of members to the audit and risk committee for the forthcoming financial year | | | |
| | 4.1 Mr Mfanyana Salanje | | | |
| | 4.2 Mr Abiel Mngomezulu | | | |
| | 4.3 Ms Karabo Nondumo | | | |
| | 4.4 Mr Zacharias van der Walt | | | |
| 5 | Ordinary Resolution Number 5: Re-appointment of external auditors of the company, KPMG Inc and to appoint Riaan Davel as the designated audit partner | | | |
| 6 | Ordinary Resolution Number 6: Placing the authorised but unissued shares under the control of the directors | | | |
| 7 | Ordinary Resolution Number 7: Issue of shares under the Merafe Resources Limited Share Incentive Scheme | | | |
| 8 | Ordinary Resolution Number 8: General authority to issue shares, for cash | | | |
| 9 | Ordinary Resolution Number 9: Non-binding advisory vote on remuneration policy | | | |
| 10 | Special Resolution Number 1: Approval of directors' fees for previous financial year 2011 | | | |
| 11 | Special Resolution Number 2: Approval of non-executive directors' fees for 2012 | | | |
| 12 | Special Resolution Number 3: Authority to provide loans or other financial assistance | | | |
| 13 | Ordinary Resolution Number 10: Authority to sign all documents required to give effect to all resolutions in this Notice | | | |

Signed at on 2012

Signature (assisted by me – where applicable)

**Please see notes overleaf**

# Notes to form of proxy

1. A shareholder may insert the name of a proxy or the names of two alternative proxies of the shareholder's choice in the space(s) provided, with or without deleting "the chairperson of the annual general meeting", but any such deletion must be initialled by the shareholder. The person whose name stands first on the form of proxy and who is present at the annual general meeting of shareholders will be entitled to act as proxy to the exclusion of those whose names follow.
2. A shareholder's instructions to the proxy must be indicated by the insertion of the relevant number of votes exercisable by that shareholder in the appropriate box provided. Failure to comply will be deemed to authorise the proxy to vote or to abstain from voting at the annual general meeting of shareholders as he/she deems fit with respect to all the shareholder's votes exercisable thereat. A shareholder or the proxy is not obliged to use all the votes exercisable by the shareholder or by his proxy, but the total of the votes cast and in respect of which abstention is recorded may not exceed the total of the votes exercisable by the shareholder or by the proxy.
3. Forms of proxy must be lodged with, posted or faxed to, the transfer secretaries' registered office: Link Market Services Limited, 13th Floor, Rennie House,19 Ameshoff Street, Braamfontein, 2001 (PO Box 4844, Johannesburg 2000), or +27 11 713 0800, or the company's registered offices: 1st Floor, Block B, Sandton Place, 68 Wierda Road East, Wierda Valley, Sandton, 2196 (PO Box 652157, Benmore 2010), or fax +27 11 783 4789 to be received no later than 11:00 am on Wednesday, 2 May 2012.
4. The completion and lodging of this form of proxy shall not preclude the relevant shareholder from attending the annual general meeting and speaking and voting in person thereat to the exclusion of any proxy appointed in terms hereof, should such shareholder wish to do so.
5. Documentary evidence establishing the authority of a person signing this form of proxy in a representative or other legal capacity (such as power of attorney or other written authority), must be attached to this form of proxy unless previously recorded by Merafe Resources.
6. Any alteration or correction made to this form of proxy must be initialled by the signatory/ies.
7. On a show of hands, every shareholder shall have only one vote, irrespective of the number of shares he/she holds or represents, provided that a proxy shall, irrespective of the number of shareholders he/she represents, have only one vote.
8. On a poll, every shareholder present in person or represented by proxy shall have one vote for every Merafe Resources share held by such shareholder.
9. A resolution put to the vote shall be decided on a poll.

# Corporate information

**Company details**

Merafe Resources Limited
Company registration number: 1987/003452/06
www.meraferesources.co.za

**Business address and registered office**

1st Floor Block B, Sandton Place
68 Wierda Road East Wierda Valley Sandton
2196

**Postal address**

PO Box 652157
Benmore
2010

Telephone: +27 11 783 4780
Telefax: +27 11 783 4789

**Company secretary**

A Mahendranath

**Auditors**

KPMG Inc.
85 Empire Road
Parktown 2193
Private Bag 9
Parkview
2122

**Bankers**

ABSA Bank Limited
180 Commissioner Street
Johannesburg 2001
PO Box 8054
Johannesburg
2000

**Attorneys**

Bowman Gilfillan Inc.
165 West Street
Sandton 2196
PO Box 785812
Sandton
2146

**Transfer secretaries**

Link Market Services (Propriety) Limited
13th Floor, Rennie House
19 Ameshoff Street
Braamfontein 2001
PO Box 4844
Johannesburg
2000

**Sponsor**

Deutsche Securities (SA) Proprietary Limited
Registration number 1995/011798/07
3rd Floor
3 Exchange Square
87 Maude Street
Sandton 2196
Private Bag X9933
Sandton
2146

HKLM

www.meraferesources.co.za

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