

This section of the report includes our Chief Financial Officer's review of our financial performance

REVIEW OF RESULTS 26

financial capital



The Lion ferrochrome plant at Steelpoort
Limpopo Province

FINANCIAL CAPITAL

Financial capital makes it possible for the other types of capital to be owned and traded and is representative of how successful we have been at achieving the sustainable development of our natural, human, social or manufactured capital.

Sustainable organisations need a clear understanding of how financial value is created, in particular the dependence on other forms of capital. We enhance our financial capital by:

- effective management of risk
- corporate governance structures
- assessing the wider economic impacts of our activities on society.

Material issues

- Global economic environment
- Ferrochrome demand
- Chrome ore exports to China
- Energy prices and supply



Key points

- Merafe EBITDA R313.7 million
- Strong balance sheet
- Cash flows from operating activities of R257 million
- Profit of R48.9 million
- R603 million invested in expansionary and sustaining capex
- R512 million in long-term debt

Introduction

In this section of our report I will provide you with an overview of our financial performance in 2012. For more detailed financial information I would refer you to our annual financial statements on pages 134 to 182.

Global and local conditions continue to contribute to lower prices and demand for commodities of which ferrochrome is no exception. 2012 was also not a good year for small and medium cap stocks with nervous investors avoiding these stocks. Our share price continues to suffer from this sentiment.

The weakening of the rand against the dollar has compensated to some extent for a reduced ferrochrome price and further electricity tariff increases.

Review of our results

Merafe's primary source of revenue and operating income is currently its 20.5% share of the earnings before interest, taxation, depreciation and amortisation (EBITDA) of the Xstrata-Merafe Chrome Venture (Venture).

Our earnings from the Venture were affected by the decrease in the average European benchmark ferrochrome price from 125 USc/lb in 2011 to 121 USc/lb in 2012, and an increase in costs, both of which were partially offset by the weakening of the rand compared with the US dollar. Merafe's portion of the Venture's EBITDA for 2012 was also affected by a foreign exchange loss of R3.9 million, while its EBITDA for 2011 benefited from a foreign exchange gain of R80.9 million. In 2011 the average R:US$ exchange rate was R7.26 compared with a R:US$ exchange rate of 8.21 in 2012.

Merafe's share of ferrochrome sales tonnes was 255 000 tonnes, which marginally exceeded 2011 sales tonnes of 254 000 tonnes. Chrome ore revenue, as a percentage of total revenue, decreased by 1% from 14% in 2011 to 13% in 2012.

Merafe's share of EBITDA from the Venture in 2012 was R349.4 million, which includes Merafe's attributable share of standing charges of R167.2 million. After accounting for our corporate costs of R33.6 million and a share-based payment expense of R2.1 million, Merafe's EBITDA was R313.7 million. Our corporate costs decreased year-on-year, primarily as a result of transaction costs and expenses associated with indirect tax liabilities that were incurred in 2011.

Merafe's profit for the year was R48.9 million after depreciation of R140.1 million, an impairment loss of R77.5 million, net financing costs of R19.7 million, a current tax expense of R0.3 million, a deferred tax expense of R60.2 million and a R33 million write-back arising from the overprovision of current tax in prior years were taken into account. Depreciation increased year-on-year as a result of the re-assessment of useful lives and residual values in accordance with IAS 16 – Property, Plant and Equipment, as well as the accelerated depreciation recognised on assets scrapped during the year. The impairment loss was primarily as a result of the Venture considering the sale of some of its mining assets as part of its portfolio review. The R33 million write-back of current tax and the increase in the effective tax rate arose from the South African Revenue Services' (SARS) assessment of our returns during 2012.

FINANCIAL CAPITAL (continued)

The balance of our unredeemed capital expenditure is estimated to be R446 million at 31 December 2012.

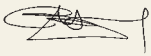
We advised shareholders on 7 August 2012 by means of a SENS announcement, that SARS had issued Merafe Ferrochrome with an audit letter of findings of R26 million. SARS has since withdrawn this letter of findings. As we have previously reported, the partners in the Venture were in the process of engaging with SARS with a view to obtaining clarity on other areas where the structure of the Venture created anomalies with regard to VAT interpretation. We are pleased to report that this matter is now resolved.

Property, plant and equipment increased from 31 December 2011 as a result of capital expenditure of R603 million of which R423 million was expansionary and R180 million was sustaining. The expansionary capital included expenditure on Project Tswelopele, Project Lion II and the development of Horizon Mine.

Merafe started the year with a cash balance of R221 million, generated operating cash flows of R257 million, invested R603 million in capital expenditure, raised loans of R211 million, incurred R3 million foreign exchange fluctuations on cash held and closed with a cash balance of R83 million at 31 December 2012. Cash in Merafe was R24 million and Merafe's share of cash in the Venture was R59 million. At 31 December 2012 Merafe had long-term debt owing to ABSA Capital of R512 million and approximately R288 million unutilised ABSA long-term debt facilities.

Dividend

The Merafe board decided against declaring a dividend for the 2012 year, having taken into account expansion projects and the debt and cash levels of the group.



Zanele Matlala
Chief Financial Officer



STATEMENTS OF COMPREHENSIVE INCOME

for the year ended 31 December 2012

	Group		Company	
	2012 R'000	2011 R'000	2012 R'000	2011 R'000
Revenue	2 541 984	2 426 755	13 472	22 090
Foreign exchange (losses)/gains	(3 886)	80 930	–	–
Operating and other expenses	(2 224 448)	(2 127 860)	(26 978)	(34 378)
Earnings/(losses) before interest, taxation, depreciation and impairment	313 650	379 825	(13 506)	(12 288)
Depreciation and impairment*	(217 641)	(153 113)	(3 750)	(437)
Results from operating activities	96 009	226 712	(17 256)	(12 725)
Net finance (expense)/income	(19 660)	(21 565)	3 302	627
Finance expense	(29 302)	(32 853)	(12)	(4 383)
Finance income	9 642	11 288	3 314	5 010
Profit/(loss) before income tax	76 349	205 147	(13 954)	(12 098)
Income tax	(27 476)	(88 397)	4 402	(3 319)
Profit/(loss) and total comprehensive income for the year	48 873	116 750	(9 552)	(15 417)
Profit/(loss) and total comprehensive income for the year attributable to:				
Owners of the company	48 873	116 750	(9 552)	(15 417)
Earnings per share				
Basic earnings per share (cents)	2	5		
Diluted earnings per share (cents)	2	5		

** Group – includes R140m depreciation (2011: R112m) and R78m impairment (2011: R41m)*
** Company – includes R0.3m depreciation (2011: R0.4m) and R3.5m impairment (2011: Rnil)*

Financial capital

STATEMENTS OF FINANCIAL POSITION

as at 31 December 2012

	Group		Company	
	2012 R'000	2011 R'000	2012 R'000	2011 R'000
Assets				
Property, plant and equipment	2 677 308	2 372 768	406	3 898
Investment in subsidiaries			1 187 655	1 187 655
Deferred tax assets	–	–	10 767	6 365
Total non-current assets	2 677 308	2 372 768	1 198 828	1 197 918
Inventories	1 088 885	1 065 932	–	–
Trade and other receivables	344 725	262 979	107 104	33 954
Current tax asset	26 424	–	–	–
Cash and cash equivalents	82 643	220 459	26 185	120 575
Assets held for sale	72 127	–	–	–
Total current assets	1 614 804	1 549 370	133 289	154 529
Total assets	4 292 112	3 922 138	1 332 117	1 352 447
Equity				
Share capital	24 932	24 932	24 932	24 932
Share premium	1 262 481	1 262 481	1 262 481	1 262 481
Equity-settled share-based payment reserve	33 847	31 759	33 847	31 759
Retained earnings/(accumulated loss)	1 388 369	1 339 496	(29 367)	(19 815)
Total equity attributable to equity holders of the company	2 709 629	2 658 668	1 291 893	1 299 357
Liabilities				
Loans and borrowings	523 872	312 778	1 767	1 608
Provision for closure and restoration costs	57 892	48 396	–	–
Deferred tax liabilities	551 165	506 204	–	–
Total non-current liabilities	1 132 929	867 378	1 767	1 608
Loans and borrowings	636	508	50	–
Financial liability	–	6 098	–	–
Trade and other payables	430 368	375 946	38 407	51 482
Current tax liability	–	13 540	–	–
Liabilities held for sale	18 550	–	–	–
Total current liabilities	449 554	396 092	38 457	51 482
Total liabilities	1 582 483	1 263 470	40 224	53 090
Total equity and liabilities	4 292 112	3 922 138	1 332 117	1 352 447

STATEMENTS OF CASH FLOWS

for the year ended 31 December 2012

	Group		Company	
	2012 R'000	2011 R'000	2012 R'000	2011 R'000
Cash flows from operating activities				
Cash generated from/(utilised in) operating activities	283 991	344 080	(97 593)	(970)
Interest paid	(29 302)	(29 186)	(12)	(835)
Interest received	9 642	10 383	3 314	4 104
Taxation paid	(7 285)	(30 157)	–	(158)
Net cash from operating activities	257 046	295 120	(94 291)	2 141
Cash flows from investing activities				
Advance of subsidiary loan account	–	–	–	77 302
Proceeds on disposal of property, plant and equipment	16	–	16	–
Acquisition of property, plant and equipment				
– sustaining[b]	(179 658)	(173 603)	(274)	(272)
– expansionary[b]	(423 568)	(230 801)	–	–
Net cash (utilised in)/generated from investing activities	(603 210)	(404 404)	(258)	77 030
Cash flows from financing activities				
Proceeds from issue of shares	–	9 078	–	9 078
Dividends paid	–	(49 533)	–	(49 533)
Secondary tax on companies paid	–	(4 511)	–	(4 511)
Loans raised during the year	211 094	–	159	66
Repayment of loans and borrowings	–	(8)	–	–
Net cash used in financing activities	211 094	(44 974)	159	(44 900)
Net (decrease)/increase in cash and cash equivalents	(135 070)	(154 258)	(94 390)	34 271
Cash and cash equivalents at 1 January	220 459	320 724	120 575	86 304
Effect of exchange rate fluctuations on cash held during the year	(2 746)	53 993	–	–
Cash and cash equivalents at 31 December	82 643	220 459	26 185	120 575

[b] *Relates to 20.5% of the Venture's total cash outflow.*



This section of the report looks at manufactured capital, the components of which include a company's assets and the processes it employs to extract value from these assets:

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PRODUCT STEWARDSHIP 37

manufactured capital



Inside the Tswelopele pelletising and sintering plant
North West province

MANUFACTURED CAPITAL

Manufactured capital in the mining context relates to the mining process and how it is conducted and the assets which are being mined and beneficiated.

It is important to an organisation's sustainability because its efficient use allows an organisation to be flexible and innovative and increases the speed at which it delivers.

We enhance our manufactured capital by:

- employing our infrastructure, technologies and processes to use our resources most efficiently
- devising technology and management systems that reduce our waste and emissions.

Material issues

- Project execution
- Pricing and the availability of electricity supply
- Business continuity and profitability
- Investing in new technology to increase energy efficiency
- Industrial action



Key points

- Ferrochrome production of 242 000 tonnes
- Operating capacity utilisation of 66%
- Cost increases contained at 9.2%

Our operations

- 20 furnaces on five production sites
- Ferrochrome production capacity of 1 979 000 tonnes a year increasing to 2 339 000 by 2014
- Major energy-efficiency technologies include Outotec and Premus
- Lowest-cost ferrochrome producer in South Africa
- Chrome resources in excess of 100 years assuming current smelting capacity (taking into account chromite ore from the Venture's mines and its access to UG2 ore)

Stakeholder impact

The stakeholders affected by our operations and who can affect our operations include the employees and contractors who work in our operations and our suppliers whose livelihood depends on the success of our operations. Our shareholders rely on the profitability of the Venture's operations and the government is responsible for monitoring the compliance levels of our operations.

Operating performance

The Venture produced a total of 1 180 000 tonnes of ferrochrome in 2012, which is 8% less than its production in 2011, using only 66% of its operating capacity. The weak market conditions influenced its decision to participate in Eskom's power buy-back programme and sacrifice approximately 130 000 tonnes of production. To avoid incurring high winter electricity tariffs the Venture also took the decision to produce at only 40% of its capacity during the winter months of 2012.

The Venture's decisions to take furnaces out of production are influenced by a number of issues. These include the need for furnace refurbishment, a particular furnace being either less efficient or more expensive to run than other furnaces or the need to spread production between plants to keep workforces busy.

When the Venture agreed to participate in Eskom's power buy-back programme it first made sure it could meet its contractual obligations, maintain its reputation as a reliable supplier of ferrochrome, that no employee would lose a job as a result of the buy-back programme and that the programme would be financially beneficial to the Venture.

To be successful the Venture needs Eskom to provide it with a reliable, fairly-priced supply of electricity. It is for this reason that it cooperates with Eskom and whenever possible, participates in programmes that help Eskom meet its commitments.

By the end of 2012, 18 of the Venture's 20 furnaces were back in operation and in spite of the labour unrest that affected the South African mining industry during the year, the Venture lost very little smelter production to strike action. As a precautionary measure the Venture postponed starting up furnaces which had been refurbished during the winter months.

Industrial action at the Venture's mines had a significant impact on ore production volumes, but because its furnace operations were reduced, stockpiled ore was sufficient to meet its requirements. The Venture's vulnerability to industrial action was reduced because while its operations in one region were affected, those in other regions where a different trade union is in the majority were not.

The Venture managed to restrict its total cost increases to 9.2% year-on-year despite costs being driven up by the electricity tariff increase of 16.7%. Despite these circumstances the Venture's ongoing cost saving exercises and investment in consumption efficiency improvements have helped it achieve ongoing year-on-year real cost decreases over the past eight years.

The Venture's cost saving efforts include using more of the lower-priced UG2 ore in its ore mix; optimising its reductant mix and reducing fixed

For more information see the manufactured capital section of our website www.meraferesources.co.za

MANUFACTURED CAPITAL (continued)

Our operations



Xstrata-Merafe Chrome Venture operations

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

Xstrata-Merafe Chrome Venture's 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	Tswelopele pelletising and sintering plant using Outotec technology	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	

The Venture has access to various UG2 plants, in the Western Limb including Eland, EPL, Kanana, Kl, K2, K4 and Rowland, and Mototolo in the Eastern Limb.

costs. The Venture's use of its inhouse patented Premus technology at the Lion and Lydenburg ferrochrome plants and Outotec pelletising technology at its Motswedi, Bokamoso and Tswelopele plants continued to improve its energy efficiencies.

Projects

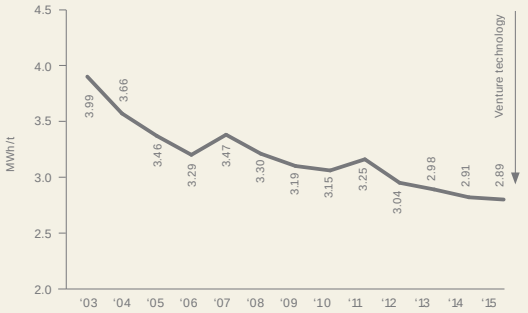
During the year the Tswelopele pelletising and sintering plant was completed on schedule and within budget with the R900 million plant being hot commissioned on 7 October and reaching its designed production capacity within two months of operation. In addition, we congratulate the project team on its outstanding safety record with over 1.6 million man hours being worked on the project without any lost time injuries.

The project's approach to safety was to keep it simple. It used a one page document to summarise the high risk activities facing a team on a particular day and to explain to the team how to perform these activities safely. Supervision levels were improved by not allowing more than 15 team members to work without a supervisor. Management practised ongoing visible felt leadership and there was zero tolerance for any deviation from the project's 20 cardinal rules. Good behaviour was recognised.

Other outstanding performances on the Tswelopele project were the achievement of optimum audit results on both internal and external audits for all aspects of project management.

The capacity of this plant is 600 000 tonnes of pellets per annum. Since it went into production the ore and electricity consumption efficiencies of the Rustenburg plant have

Energy efficiency improvements



improved by more than 21% and 11% respectively. Other advantages are that the plant will produce less slag, emit fewer fugitive emissions and use less water and less diesel by reducing transport requirements. The plant also enables the use of more UG2 ore that cannot be used without being agglomerated.

Good progress was made at Lion Phase II, a 360 ktpa ferrochrome smelter that is being constructed at a capital cost of R4.9 billion. Heavy rainfall and community unrest influenced progress on the civil work during the first few months of 2012. This smelter, based on the energy efficient Premus technology, will be commissioned towards the end of 2013. Once the plant is fully operational additional consumption efficiency improvements and cost savings will be achieved.

Developments at the Horizon Mine progressed well and ramp-up to full production capacity will start during the first half of 2013. Development of the Magareng mine is complete and the mine's beneficiation plant will also be commissioned during the first half of 2013.

Product stewardship

The Venture monitors and addresses the impacts and risks associated with the use of its products throughout their life cycles, including during stages outside of its control, such as use, recovery, recycling and disposal.

It works with national and international industry associations, its customers and suppliers to understand the environmental health and safety risks of its products and to find ways to mitigate these risks.

In terms of Registration, Evaluation and Authorisation and Restriction of Chemicals (REACH), all the products the Venture exports to countries in the European Union have been pre-registered, with the relevant pre-registration certificates and numbers available. The Venture is also actively involved in REACH.

No products produced by the Venture, or their packaging materials, were reclaimed during 2012.

The Venture is participating in a life cycle inventory project for primary ferrochrome production. The scope of the project is to create a life cycle inventory for one kilogram 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. It will also include a complete assessment of downstream ferrochrome uses (for example in the stainless steel industry). The Venture is collaborating with other South African producers on this project.

To ensure the quality of its products the Venture aligns its systems with the requirements of ISO 9001:2008 and some of its smelters are certified. Its laboratories are ISO 17025 accredited, which ensures that the methods and equipment it uses are accurate.

Tswelopele facts

Used in the plant:

2 250 tonnes
of structural steel

20km
of instrumentation cable

8km
of piping

42 000 tonnes
of concrete

5km
of conveyors

52km
electrical cable



This section of our report provides information on Merafe and the Venture's approach to climate change and how we are managing our impact on it, the environment in which we operate and how we impact it and our mineral resources and reserves without which our business would not exist

CLIMATE CHANGE AND ENERGY 41

ENVIRONMENT 44

MINERAL RESOURCES AND RESERVES 50

natural capital



Stockpiles and the conveyor belt, which carries the pellets from Tswelopele pelletising and sintering plant to the Rustenburg ferrochrome plant

North West province

NATURAL CAPITAL

Natural capital includes the natural resources and processes needed by an organisation to produce its products.

This includes renewable (timber and water) and non-renewable (fossil fuels and minerals and metals) resources and processes such as energy consumption, waste creation, emissions, etc. Without access to the natural capital contained in our mineral reserves and resources our business would not exist.

We maintain and enhance natural capital by:

- reducing our dependence on fossil fuels
- eliminating waste by reusing or recycling it whenever possible
- protecting biodiversity and eco-systems
- wherever possible using renewable resources from well-managed and restorative eco-systems
- managing resources and reserves efficiently.

Material issues

Energy

Pricing and the availability of electricity supply

Business continuity and profitability

Investing in new technology to increase energy efficiency

Climate change

Health and safety

Environmental aspects of climate change

The Venture's production of significant quantities of indirect and direct greenhouse gas emissions (GHGs)

The carbon budgeting process

Investing in new technologies to reduce emissions



CLIMATE CHANGE AND ENERGY

Key points

- 10% reduction in total CO_2e generated by the Venture
- 3% reduction in CO_2e generated per tonne of ferrochrome produced
- 14% reduction in energy consumption
- 6% reduction in energy use per tonne of ferrochrome produced

Stakeholder impact

The returns earned by Merafe's investors can be negatively affected by pricing, carbon taxes, non-availability of a supply of electricity and the prices customers have to pay for the Venture's products.

The Venture's stakeholders benefit from its energy efficiencies which have made it one of the lowest-cost ferrochrome producers in the world and the lowest-cost producer in South Africa.

The Venture is a major purchaser of electricity from Eskom and any energy efficiencies it achieves reduce pressure on Eskom, which is currently struggling to meet electricity demands.

The government is responsible through the Department of Energy (DoE) for South Africa's energy production strategy, the National Treasury for a proposed carbon tax and the Department of Environmental Affairs (DEA) for climate change policies. Government's actions and decisions can have a positive or negative impact on our business. The price and availability of power can threaten the viability of the Venture's ferrochrome business in particular.

Engagement with stakeholders

We keep our investors and business partners informed on climate change and energy issues. This engagement includes regular board and committee meetings and reporting.

The Venture, which engages regularly with government, was instrumental in establishing two important and influential structures in South Africa: the Energy Intensive User Group (EIUG) and the Industry Task Team on Climate Change (ITTCC) which are both well-regarded and respected by government and big business. The Venture mainly engages with government through these structures and as a member of the South African ferrochrome industry. During 2012 the Venture focused on the pricing and security of power in South Africa, the proposed carbon tax and climate change policies. The Venture is also assisting with the development of the DoE's integrated resource plan.

Merafe's emissions

Merafe established its carbon footprint for the first time in 2012, which was 86 tCO_2e. In order to offset its carbon footprint Merafe is purchasing trees from Food and Trees for Africa and has requested that these trees are planted in a disadvantaged community in the vicinity of the Venture's operations.

The Venture's emissions

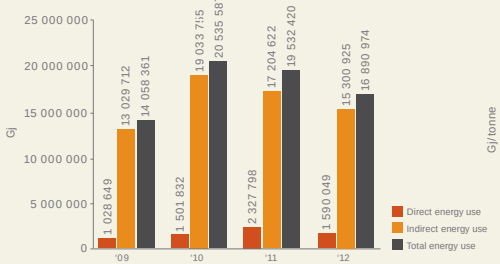
The Venture measures its GHG emissions as carbon dioxide equivalent tonnes (tCO_2e). The Venture's total Scope 1 (direct) and Scope 2 (indirect) GHG emissions during 2011 amounted to 6.7 million tCO_2e and this reduced to 6.0 million tCO_2e in 2012.

During 2012 the Venture carried out an annual review of its climate change strategy, targets and plans and its energy improvement plans.

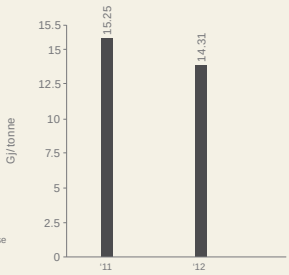
It also identified energy reduction projects on which to perform feasibility studies. The availability of funding and uncertainty regarding the increase in power costs made this a difficult exercise. A significant amount of work was done on a waste heat recovery project at the Wonderkop ferrochrome plant. Waste heat will be harvested using the Organic Rankin Cycle process to generate electricity. This project will be funded by an independent power producer from whom we will buy back the electricity produced. The feasibility of this project, however, depends on market conditions and future electricity prices.

CLIMATE CHANGE AND ENERGY (continued)

The Venture's energy usage*



Energy use per tonne of ferrochrome produced*



** Data for previous years has been restated following a review of data and conversion factors when data was transferred to Xstrata's new database*

The Rustenburg ferrochrome plant is also exploring the possibility of a waste heat recovery project, but the plant has not yet decided on the technology it will use; and is also looking at the possibility of capturing gas from the municipal waste dump, which can then be used as an energy source by the plant. The Venture hopes to sign a memorandum of understanding with the Rustenburg municipality in the near future, which will allow the plant to conduct a feasibility study.

The Venture's energy consumption

Total energy consumption in the Venture's operations decreased 14% year-on-year, partially as a result of lower production volumes and partially as a result of increased energy efficiency.

The Venture's approach to climate change and managing carbon emissions

The Venture has worked for many years on climate change-related initiatives. It has improved its energy efficiency throughout its business and invested in technological solutions that have made its ferrochrome operations the most energy-efficient in the world. It constantly looks for ways to further reduce its energy use per tonne of product and is researching safe solutions to capturing, storing and using carbon dioxide (CO_2) emissions from its ferrochrome smelting operations to produce energy. Xstrata and the Venture apply a global factor based on the GHG protocol (0.8349 kg CO_2/kWh) when measuring the Venture's greenhouse gas emissions.

The Venture's investment in the Bokamoso and Tswelopele pelletising and sintering plants and the Lion ferrochrome plant Phases I and II are all aimed at reducing its consumption of electricity and consequently its carbon footprint.

The Venture includes carbon and climate change risks in its business risk management systems and continues to improve its standards and protocols to measure and monitor and report on its carbon footprint.

The Venture's climate change strategy

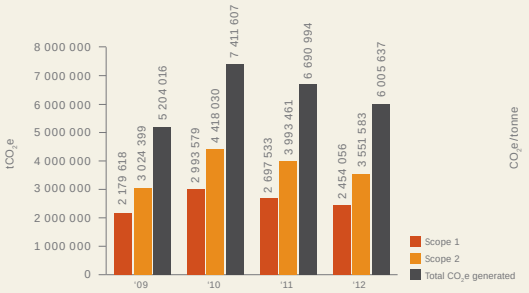
The Venture's existing climate change strategy consists of three elements, which are to:

- continually improve the quality of its data relating to GHG emissions and energy use
- create and develop more energy-efficient mining, concentrating, smelting and refining processes
- achieve ongoing energy efficiency improvements by identifying, implementing and sharing programmes between its operations that significantly advance energy efficiency improvements at its operations.

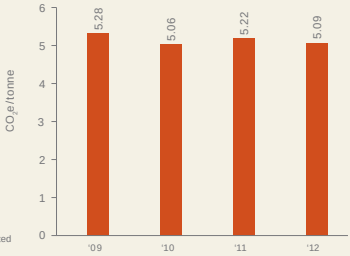
Xstrata began a review of its global climate change strategy, which is applied in the Venture, late in 2011. The objectives of this review were to:

- improve how energy and GHG emissions footprint are measured and managed and understand and identify priority abatement investment opportunities
- further integrate carbon price assumptions, climate-related risks and opportunities into business planning and strategic decision-making
- continue to proactively engage and participate in the development of effective public climate change policy
- continue to invest in the research and development of low emission technologies.

Greenhouse gas emissions (GHGs)*



CO_2e generated per tonne of ferrochrome produced*



** Data for previous years has been restated following a review of data and conversion factors when data was transferred to Xstrata's new database*

The risks associated with climate change

Climate change remains a key longer-term risk for the Venture. The potential risks it faces from climate change are both physical and financial. They are complex risks as they include operational risks such as business continuity, health and safety, environmental aspects and regulatory aspects. The Venture needs to constantly engage with legislators, researchers and industry bodies, track and evaluate the situation and develop an improved awareness of and preparedness for the risks associated with climate change. It works with members of its industry and other stakeholders to understand the potential impacts of climate change and take action to minimise them where climate change is likely to have the most effect and where the Venture can make the greatest difference.

Possible physical and financial impacts

The Venture's operations could be damaged by flooding and extreme storms which could cause business interruptions. The reduced availability of water could also interrupt its business and could have health impacts.

Some of the Venture's operations are located in arid areas where prolonged drought conditions could limit production growth or prevent it from operating.

The risks associated with pricing and security of electricity supply

Higher energy costs negatively affect the Venture's ability to contain operating costs and remain competitive, especially in its ferrochrome operations which are major consumers of electricity. One of the risks associated with the introduction of a carbon tax in South Africa is the impact it would have on the cost of our electricity (produced by burning fossil fuel which produces GHGs) and transportation. It would also increase operational costs related to GHG emissions monitoring, reporting and accounting.

Engaging in public policy

The Venture is assisting the DoE with a carbon budgeting process which involves developing a scientific process for estimating what the country's annual carbon emissions are likely to be, understanding what reduction it is possible for the country to achieve and developing a model that will allow the DoE to put a reasonably accurate price on carbon emissions. Our participation in discussions and interventions with government is through the EIUG and ITTCC.

Understanding the Venture's carbon footprint

The Venture generates GHG emissions from its smelting processes and from its energy use. The use of fossil fuels in the form of diesel and petrol in vehicles contributes directly to the creation of GHGs and the electricity supplied from coal-fired power stations contributes indirectly to the creation of GHGs.

The Venture and Merafe are committed to minimising GHG emissions and improving our energy efficiency, and recognise the magnitude and importance of this challenge.

& The Venture's energy efficiency makes it the **lowest-cost** ferrochrome producer in South Africa

Natural capital

ENVIRONMENT

Environment includes the natural resources and processes needed by an organisation to produce its products.

This includes renewable (timber and water) and non-renewable (fossil fuels and minerals and metals) resources and processes such as energy consumption, waste creation, emissions, etc.

Material issues

- Water
- Air emissions
- Waste
- Biodiversity and land use



Key points

5.2% increase in the Venture's total water usage

Venture reduced its purchase of potable water by 6.1%

There were no high-potential risk incidents in the Venture in 2012

As Merafe's corporate office has a limited impact on the environment this section of our report focuses on the Venture's environmental approach, impact and performance. Previously, we have relied on the Venture's effective environmental policies and procedures to ensure our investment is managed responsibly. Merafe is now in the process of developing its own environmental policy which will apply to any future investments we make.

Stakeholder impact

When it comes to the environmental impact of the Venture's operations, the communities where it operates are important stakeholders, as its operations could affect their access to water and the quality of this water, and its emissions to air could affect the health of community members. If its waste management is poor it could pollute their environment and if its management of biodiversity and its use of the land it occupies is poor it could damage habitats and destroy threatened species. The Department of Environmental Affairs (DEA), the Department of Water Affairs (DWA) and the Department of Mineral Resources (DMR) are responsible for monitoring the Venture's adherence to environmental legislation and its progress against its environmental targets in terms of the Mining Charter Scorecard.

The communities in which the Venture works, and in particular the forums representing these communities, which include the North West Eco Forum and the Kroondal Eco Forum; the DEA, the DWA and the DMR; and a number of industry bodies, including the North West Air Pollution Control Forum (NAPCOF), the International Stainless Steel Federation (ISSF), the International Chrome Development Association (ICDA), the International Council for Mining and Metals (ICMM) and the Global Business Coalition programme, in which Xstrata is either a member or a participant, all have an impact on the Venture's ability to manage the environments in which it works.

The government departments have to approve its environmental and social impact assessments (ESIAs) and issue its water use licences, without which it cannot operate.

Merafe's investors could be affected if the Venture cannot operate without a licence and if it incurs major environmental fines or penalties.

Engagement with stakeholders

The Venture engages with communities through open days and community forums, which provide an opportunity for community members to gain an understanding of its processes and the steps it is taking to improve its environmental performance. The Venture also invites community members and community forums to record any complaints or concerns. A complaints register is available at every operation for this purpose. These complaints/concerns are addressed and the Venture gives feedback on the actions it has taken.

The Venture's operations have quarterly meetings with the community forums. It sends SMS messages to their members whenever there is a venting incident at one of its smelters and it includes information on its actions to address the result of the incident. It also communicates via emails.

ENVIRONMENT (continued)

The Venture's regular engagement with the DEA and the DWA by means of workshops, working groups, forums and meetings allows it to share best practice, discuss industry issues, give input into proposed legislation and share environmental knowledge.

Its participation in industry bodies through membership of committees, co-development of research projects and presentations gives it access to information on common problems, best practice and performance trends and allows it to share information on product stewardship.

An integrated approach to environmental responsibilities

While the Venture manages the environmental risks and impacts of its operations through Xstrata's group-wide environmental risk and performance management framework, it tailors its approach to environmental management to its specific operational and business management processes, while remaining consistent with the commitments and specifications of Xstrata's group-wide sustainable development and risk management frameworks.

Management accountability is central to Xstrata's integrated approach. Every year Xstrata reviews its environmental risks and opportunities as part of its business strategy and planning process. It captures and integrates environmental risks into its site, divisional and commodity business unit and group-level risk registers. This approach involves the whole management team, not just its environmental specialists, in the analysis and treatment of environmental risks and performance.

Xstrata's sustainable development assurance programme, which aligns with ISO 14001 and the International Council of Mining and Metals' (ICMM) Sustainable Development Principles, requires independent site audits in the Venture every three years. These audits, undertaken by specialists, include assessments of both environmental management systems and risks. Each site uses the findings from these audits when they prepare their annual sustainable development improvement plans. The Venture's executive team tracks and reviews these plans. Site specific environmental compliance and system audits are used to identify opportunities to improve environmental management at the Venture's sites.

The Venture's employees are trained in risk management and environmental awareness.

Minimising impacts

The Venture is committed to identifying, understanding and minimising its impacts throughout the life of its operations and rehabilitating land once its operations have ceased. Xstrata's Sustainable Development Policy, which is applied in the Venture, outlines its commitment to identifying, understanding and mitigating the negative environmental impacts of its activities. The Venture focuses on identifying and using opportunities to help protect and improve the environment by, for example, creating protected areas for biodiversity-rich habitats on the land that it owns or leases.

It recognises that mining activities affect land, water and air and believes there is a great deal that it can do to mitigate these impacts and to ensure that they are not long term.

Managing emissions

The Venture's mining and metal processing operations generate air emissions that have the potential to affect communities living nearby and local ecosystems, if they are not carefully controlled and managed. One of its biggest concerns is particulate matter (dust which is sometimes contaminated with metals). The Venture reduces its emissions to air from its smelters to a point where they do not significantly affect air quality. The total particulates generated by the Venture's operations during 2012 were 26% lower than those we generated in 2011 as a result of the Rustenburg ferrochrome plant not operating for six months. The total mass of oxides of nitrogen (NO_x) produced by our smelting processes was increased by 40% and that of our oxides of sulphur (SO_x) was increased by 8%.

Waste

The Venture's operations generate significant amounts of hazardous and non-hazardous waste which, unless properly disposed of, can be a threat to the environment. The costs of waste disposal can be high. The Venture does not transport, import, export or treat waste deemed hazardous under the Basel Convention Annex I, II, III and VIII.

All its operations are required to have waste management strategies and plans in place to reduce, reuse, recycle and properly dispose of the waste they generate. This minimises the amount of waste sent to landfill and cuts costs. Metallurgical mines and smelters produce distinct wastes that need to be dealt with in a specific manner.

& The Venture uses **water** as efficiently as possible

How the Venture disposes of waste also depends on the local opportunities to recycle or reuse waste. Accredited service providers dispose of the waste the Venture is unable to recycle in a responsible manner. Materials currently recycled include scrap metal, paper, wood and conveyor belts.

The largest volume of waste the Venture produces is mineral waste, which includes waste rock removed to expose ore. 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, are recycled or reused whenever possible.

The Venture's emissions

Category	2012 (tonnes)	2011 (tonnes)	2010 (tonnes)
NO_x (oxides of nitrogen) Stack emissions (total mass)	222	159	184
SO_x (oxides of sulphur) Stack emissions (total mass)	2 549	2 365	3 574
Total particulates Stack emissions (total mass)	1 608	2 166	1 432

Mineral waste

Category	2012 (tonnes)	2011 (tonnes)	2010 (tonnes)
Mineral waste- recycled	1 521 116	1 372 889	1 789 004
Mineral waste – disposed	3 638 000	4 478 552	9 195 910
Mineral waste – produced	4 806 050	5 007 406	9 359 752
Non-mineral waste – recycled	9 767	14 772	21 899
Non-mineral waste – disposed	2 793	6 351	7 159
Non mineral waste – produced	12 560	21 123	29 058

Excavated materials, overburden and waste rock have been recorded under mineral waste calculations. As of 2012 no distinction is made between Mineral waste onsite and offsite disposal. 2010 and 2011 numbers have been instated accordingly.

The Venture recycles UG2 ore, a waste product of the platinum refining process, using it to make chromite pellets which are used in its ferrochrome smelters.

Effluents

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

Management of overburden, rock, tailings and sludge/residues

The Sustainable Development Standards and guidelines applied in the Venture's operations set stringent expectations for the management of tailings and waste rock facilities.

Tailings from its operations are generally stored in specially designed dams during the life of the operation. The Venture prioritises the maintenance of the integrity of tailings dams, as even a small amount of leakage could negatively impact local water quality, and takes great care in their design and management. It has processes in place to ensure it continually checks the structural capacity of these dams and to monitor ground waste.

ENVIRONMENT (continued)

The Venture stores waste rock in dumps, which it rehabilitates by shaping rock piles and revegetating them to mimic the natural environment.

Water

Water is a finite and precious natural resource essential to the sustainability of the communities in which the Venture works. It is also necessary for its mining and metallurgical processes.

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 it works. Its water use includes water employed in its primary activities, which are mining and smelting, and in its non-primary activities such as dust control and garden maintenance. The Venture mainly sources the potable water it uses in its operations from a variety of water service providers, including local municipalities.

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. The Venture has since revised how it defines recycled and dirty water from onsite dewatering activities. Essentially, it captures all rainwater that falls on "dirty areas" and stores it for use in onsite activities such as dust suppression.

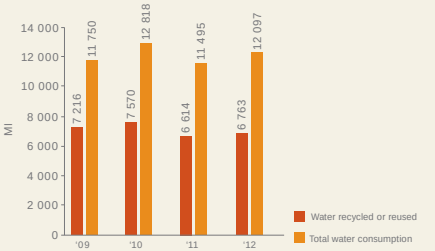
Water usage measurement is an evolving area and the Venture continues to refine how it measures water usage and its collection processes, in order to meet its evolving management and reporting needs.

Water use and availability

The Venture's 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 the Venture plans the expansion or construction of an operation. It uses the results of the ESIAs it undertakes to guide its decision-making and to ensure it has the least possible impact on local water resources during the various phases of its projects.

The Venture's water usage



All the Venture's operations have water conservation plans. They have previously set water intensity targets and have measures in place to help them be as water efficient as possible. In addition its operations are identifying possible water reduction projects.

The only water sources sensitive to withdrawal in the Venture's operations are the Dwars River and the licensed boreholes at the Lion ferrochrome plant.

Incidents and compliance

It is always the Venture's aim to have no environmental incidents at its operations. It monitors, reports, investigates and remediates any incidents that occur and applies lessons learnt to prevent similar events in the future. Its operations are required to report any environmental high potential risk incidents (HPRI), including near-misses, that could have resulted in a category 4 or 5 incident, even when the actual impact was less significant. Environmental incidents recorded at the Venture's operations include incidents that occur as the result of contractor activity.

Progress

The Venture has had no environmental fines, penalties or prosecutions at its operations for the past five years. The Venture achieved its goal of no category 3, 4 or 5 incidents recorded in its operations in 2012 and no category 4 or 5 incidents were recorded in the Venture's operations for the past six years.

Environmental incidents

Incident category	2012	2011	2010	2009	2008	2007
Category 1 – negligible (causing negligible, reversible environmental impact, requiring very minor or no remediation)	89	76	62	47	32	40
Category 2 – minor (causing minor, reversible environmental impact , requiring minor remediation)	8	7	24	22	10	4
Category 3 – significant (causing moderate, reversible environmental impact with short-term effect, requiring significant remediation)	0	0	0	0	1*	0
Category 4 – major (causing serious environmental impact, with medium-term effect, requiring significant remediation)	0	0	0	0	0	0
Category 5 – disastrous (causing disastrous environmental impact, with long-term effect, requiring major remediation)	0	0	0	0	0	0

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

Biodiversity and land management

Xstrata maintains a trust fund which contains a sum equivalent to its estimate of the future costs of rehabilitating the sites it manages over their operational lives. The Venture does not have any areas of high biodiversity on the land it owns, leases or manages.

Planning for rehabilitation and restoration

The Venture annually estimates the future costs of rehabilitation and bases the value of the trust fund it maintains on these estimates.

Its careful planning, management and investment in its resources ensures that it rehabilitates and restores its mine areas to an ecological status very similar to the conditions that existed before its mining activities began. The Venture also manages waste rock and closed mines to prevent acid rock drainage occurring. It considers the impact of its operations on local landscapes across the life cycle of a site, from initial exploration to decommissioning and closure.

Identifying potential impacts

The Venture conducts baseline biodiversity and landscape function studies as part of its ESIAs of all its projects. They are undertaken during the feasibility or exploration phase of a project and they help the Venture to address any runoff prevention, soil quality and landscape maintenance issues such as soil erosion. It also conducts environmental risk assessments for its new operations and for any major changes to existing operations. These assessments, having established the existing conditions of biodiversity and landscape function (e.g. soil erosion control and watershed management), identify the potential impacts of the proposed activities that could be a risk to biodiversity and landscape functions. They also identify the standards that need to be applied or used as benchmarks, and opportunities for improvements.

The Venture shares the information it gains from baseline and risk-related studies with affected and concerned stakeholders and uses it in its development and implementation of biodiversity and landscape function management systems and programmes and site closure plans.

Natural capital

MINERAL RESOURCES AND MINERAL RESERVES



Introduction

The purpose of this report is to document the mineral resources and mineral reserves of Merafe Ferrochrome in accordance with the requirements of the SAMREC Code (The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves, 2009). 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 mineral reserves of the Venture. The estimates in this document are as at 31 December 2012. The reporting date was moved forward from the end of June to the end of December during the 2011 reporting period so that it coincides with the Venture's financial year. The mined-out positions have been kept as at the end of June 2012. To arrive at a mineral resources and mineral reserves estimate for 31 December 2012, the budgeted production for July 2012 to December 2012 has been subtracted from the total estimates. The mineral resource and mineral reserve information in the tables on the following pages is based on information compiled by a Competent Person (as defined by the SAMREC Code).

Statement by Competent Person

The mineral resource and mineral reserve statement has been reviewed and the relevant data extracted and compiled by Pieter-Jan Gräbe (P-JG). P-JG is the Lead Competent Person, registered with the South African Council for Natural Scientific Professions (SACNASP, Private Bag X450, Silverton, 0127), Reg. No. 400177/87. He holds a BSc Hons degree in Geology as well as an NHD in Metalliferrous Mining. P-JG is a geologist with 27 years' experience in mineral exploration and mining geology, directly linked to the mining industry and currently a fulltime 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
PO Box 2131
Rustenburg
0300
RSA
Tel: (014) 590 2415
Fax: (014) 590 2498

For more information on the Merafe structure
see page 3 of this report

Definitions

The following definitions (as per the SAMREC Code 2009) have been applied in estimation and categorisation of the mineral resources and mineral reserves disclosed within this document.

Mineral Resource:

Is 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.

A deposit is a concentration (or occurrence) of material of possible economic interest, in or on the earth's crust, that may include mineralised material that cannot be estimated with sufficient confidence to be classified in the Inferred category. Portions of a deposit that do not have reasonable and realistic prospects for eventual economic extraction are not included in a Mineral Resource.

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 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.

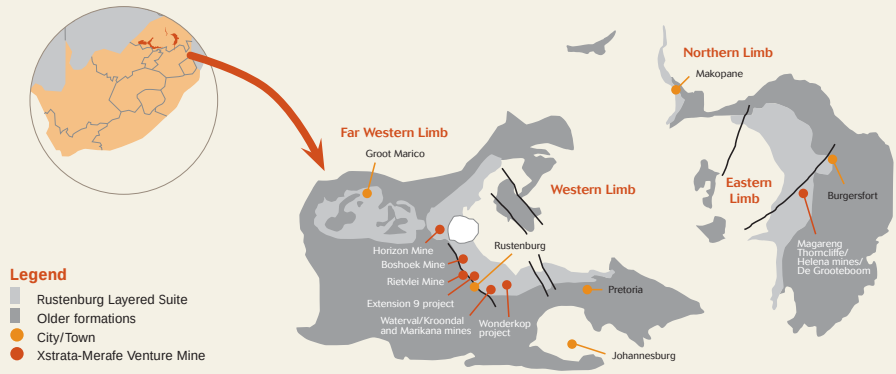
Proved Mineral Reserve:

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.

Natural capital

MINERAL RESOURCES AND MINERAL RESERVES (continued)

Figure 1: Location of the Venture's operations



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 (mainly airborne magnetic surveys) have been conducted on all major operating mines and projects. The bulk of the exploration 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 R17.404 million was spent on drilling 21 148 metres of surface exploration drillholes for the Venture operations and projects in FY2012.

No feasibility studies were conducted during the reporting period.

Geological setting

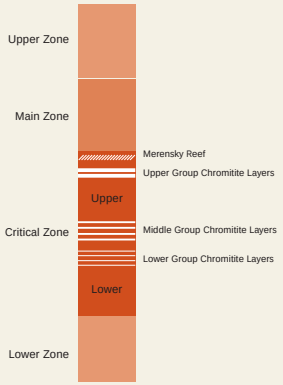
The Venture's chrome ore-bodies occur in the Bushveld Complex and its silica deposit occurs in the Magaliesberg Formation of the Transvaal Super Group (Figure 1). Both these geological occurrences are found in South Africa. Chrome ore is mined from both underground (mostly) and opencast workings, while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

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

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



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.

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 32^0 – 62^0. 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 southeast 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 mines is mined underground using trackless mining methods on a bord-and-pillar layout. Boshoek Mine is 20km northwest 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 Extension 9 are exploration projects.

Thorncliffe, Magareng 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 layout. 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's furnaces with silica.

MINERAL RESOURCES AND MINERAL RESERVES (continued)

Ore production

The Venture has mined 4.276Mt ROM ore from 1 January to 31 December 2012 against a budget of 5.036Mt. The main contributors to the lower than budgeted ROM tonnage are Waterval, Kroondal, Thorncliffe and Helena mines. The lower ROM production at Waterval Mine is mainly due to industrial action and mining operational issues. Kroondal Mine experienced similar industrial action. At Helena Mine the main reasons for the lower production were equipment breakdowns, Section 54 stoppages and mining operational reasons. The 2012 ROM tonnage is higher than the 2011 ROM production of 3.912Mt as production activities at the main production units have remained more or less the same as the 2011 production year. Waterval, 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 2012.

Legal entitlement

All new order mining rights applications, mining right conversions, prospecting rights conversions and new order prospecting rights for all the main operating units, have been granted and executed by the Department of Mineral Resources. Certain Section 102 and Section 11 applications under the MPRDA remain in the ordinary administrative process, and the Venture has little reason to believe these will not be granted in due course.

In respect of a portion of Horizon Mine (Ruighoek and Vogelstruisnek), an application to the High Court has been made by certain surface rights owners at the mine to review and set aside the conversion of mining rights granted by the Minister of the Department of Mineral Resources and to request that the conversion process start again. This issue has been settled and as the area concerned does not fall within the anticipated five-year mining area it will therefore have no impact on short-term mine production.

Description of the method and assumptions made to estimate mineral resources and mineral reserves

Chrome

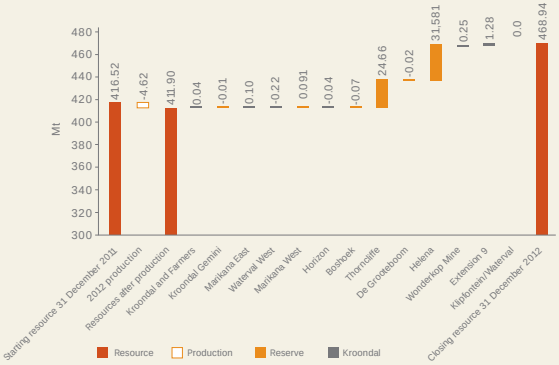
Raw geological data is validated through various steps and routines before being compiled into a final database.

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 (Cr_2O_3, FeO_{total} and SiO_2). The results of the geostatistical analysis are used as input parameters for the creation of grade and thickness block models 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 approximately 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. The geostatistical analysis of the exploration data has indicated semi-variogramme ranges of at least 250m going up to 2 000m. Geological structural characteristics are used in addition to support the drilling density.

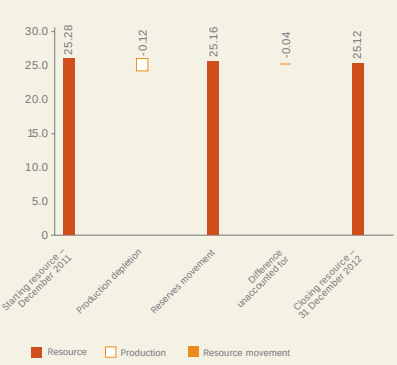
Other factors that are taken into consideration are regional geology and the proximity of other operating or worked-out mines and projects. All the non-mineralised areas, and areas that may not be mined for various legislative or other reasons are excluded from the mineral resources, e.g. boundary pillars, crown pillars, large potholes, transgressive geological bodies, fault zones, 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.

& The Venture spent **R17.4** million on surface exploration drillholes in 2012

Chrome mineral resource



Quartzite mineral resource



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. The exploration 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 resource reconciliation

The year-on-year change in chromitite resource tonnages is the most prominent at the Thorncliffe and Helena properties. The change is due to the introduction of the MG2 Chromitite Layer into the resource statement. The net change in mineral resources tonnage for every property after mining depletion is shown above.

There is no material difference in the silica mineral resource estimate from January 2011 to December 2012 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.

Natural capital

MINERAL RESOURCES AND MINERAL RESERVES (continued)

Auditing

An internal audit is conducted annually on the estimation process. The 2012 estimation process was audited internally by Xstrata Alloys' Auditing Services. The internal audit report is presented to the Xstrata Alloys Audit Committee. The internal audit focused on verifying whether the estimation process complied with the Xstrata inhouse "Procedure for the Estimation of Mineral Resources and Ore Reserves" and the requirements of the reporting code. The audit involved site visits to the chrome mining operations 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 on any of the mines or projects and hence no inferred mineral resources have been included in any feasibility studies. No inferred mineral resources have been modified to mineral resources.

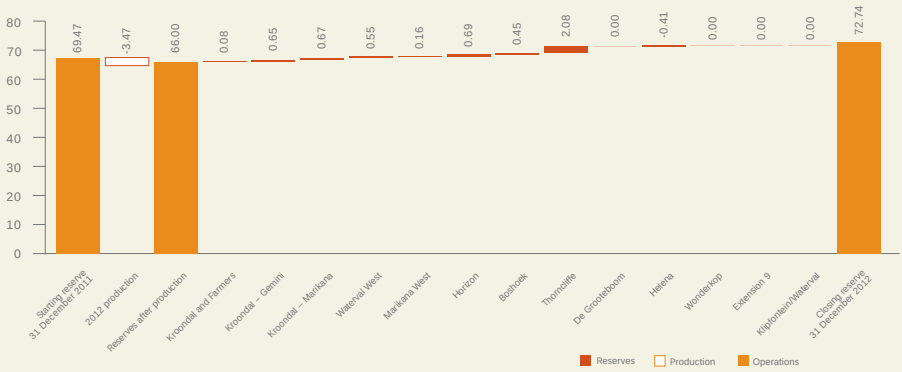
Material risk factors

There are no foreseen material risk factors that could affect the validity of the current mineral resource and mineral reserve statement. 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 inhouse 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

Chrome ore reserves





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 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. The Venture has introduced key performance indicators on the reuse and recycling of waste in 2012. The target was set at 10%. 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.

Natural capital

MINERAL RESOURCES AND MINERAL RESERVES (continued)

Mineral resources and mineral reserves statement

The reporting date for the mineral resources and mineral reserves is 31 December 2012.

Chrome mineral resources

Name of operation	Attributable portion	Mining method	Commodity	Measured mineral resources 31.12.12	Measured mineral resources 31.12.11	Indicated mineral resources 31.12.12	Indicated mineral resources 31.12.11	Measured and indicated resources 31.12.12	Measured and indicated resources 31.12.11	Inferred mineral resources 31.12.12	Inferred mineral resources 31.12.11	Competent Person
Operating mines												
Waterval	20.5%	UG	(Mt)	16.609	16.530	0.98	1.36	17.59	17.89	0.6	0.6	DR/PJG
			Cr_2O_3(%)	41.29	41.20	42.6	42.5	41.4	41.3	43	43	
Marikana West	20.5%	UG	(Mt)	3.530	3.217	1.59	2.06	5.12	5.27	5.12	–	DR/PJG
(Waterval Ext)			Cr_2O_3(%)	42.38	42.34	42.6	42.7	42.5	42.5	42.5	–	
Kroondal	20.5%	UG/OC	(Mt)	9.811	9.995	1.82	1.89	11.64	11.89	0.1	–	DR/PJG
			Cr_2O_3(%)	42.87	42.91	42.4	42.6	42.8	42.9	42	–	
Kroondal Gemini	20.5%	UG/OC	(Mt)	10.854	9.846	6.47	7.76	17.33	17.61	0.2	0.2	DR/PJG
(Kroondal ext)			Cr_2O_3(%)	42.83	42.98	42.2	42.4	42.6	42.7	42	42	
Marikana East	20.5%	UG	(Mt)	4.485	3.874	0.49	1.21	4.97	5.08	0.3	0.3	DR/PJG
(Kroondal ext)			Cr_2O_3(%)	42.35	42.41	42.3	42.3	42.3	42.4	42	42	
Horizon	20.5%	UG/OC	(Mt)	4.080	4.023	9.74	10.09	13.82	14.11	9.1	8.8	DR/PJG
			Cr_2O_3(%)	44.78	44.99	43.9	44.0	44.1	44.3	44	45	
Boshoek	20.5%	OC/UG	(Mt)	0.350	0.739	16.87	16.87	17.22	17.61	–	–	DR/PJG
			Cr_2O_3(%)	39.43	40.38	40.4	40.4	40.4	40.4	–	–	
Thorncliffe	20.5%	UG/OC	(Mt)	44.382	41.322	9.70	12.51	54.09	53.83	35.7	13.6	DR/SV
			Cr_2O_3(%)	40.58	40.46	40.8	40.9	40.6	40.6	40	41	
Helena	20.5%	UG/OC	(Mt)	19.673	18.744	7.49	9.06	27.17	27.81	88.0	56.8	DR/SV
			Cr_2O_3(%)	40.48	40.53	39.5	39.5	40.2	40.2	39	39	
Subtotal			(Mt) Cr_2O_3(%)	113.773 41.35	108.289 41.33	55.17 41.4	62.81 41.4	168.94 41.36	171.10 41.4	133.9 40	80.4 40	
Projects												
Wonderkop	20.5%	UG	(Mt)	–	0.452	7.05	6.84	7.05	7.29	–	–	PJG/DR
			Cr_2O_3(%)	–	40.20	40.6	40.5	40.6	40.5	–	–	
Extension 9	20.5%	UG	(Mt)	–	–	13.89	12.61	13.89	12.61	–	–	PJG/DR
			Cr_2O_3(%)	–	–	41.0	40.8	41.0	40.8	–	–	
De Grooteboom	20.5%	UG/OC	(Mt)	0.802	0.808	0.65	0.66	1.45	1.47	–	–	SV/DR
			Cr_2O_3(%)	40.28	40.28	40.3	40.3	40.3	40.3	–	–	
Klipfontein/ Waterval	20.5%	UG	(Mt)	8.277	4.476	13.81	15.78	22.09	20.26	121.6	123.4	PJG/DR
			Cr_2O_3(%)	42.35	42.82	42.5	42.6	42.4	42.7	42	42	
Subtotal			(Mt)	9.080	5.735	35.80	35.90	44.48	41.64	121.6	123.4	
			Cr_2O_3(%)	42.17	42.26	41.5	41.5	41.6	41.6	42	42	
Total			(Mt)	122.853	114.024	90.57	98.71	213.42	212.28	255.5	203.8	
			Cr_2O_3(%)	41.41	41.38	41.4	41.5	41.4	41.4	41	42	

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. The LG6A 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.

Chrome mineral reserve statement

Name of operation	Participation interest	Mining method	Commodity	Proved mineral reserves 31.12.12	Proved mineral reserves 31.12.11	Probable mineral reserves 31.12.12	Probable mineral reserves 31.12.11	Total mineral reserves 31.12.12	Total mineral reserves 31.12.11	Competent Person
Operating mines										
Waterval	20.5%	UG	(Mt)	11.044	10.253	0.91	1.23	11.95	11.48	PJG/DR
			Cr_2O_3(%)	30.84	31.35	26.0	26.5	30.5	30.8	
Marikana West	20.5%	UG	(Mt)	1.077	0.973	–	–	1.08	0.97	PJG/DR
			Cr_2O_3(%)	28.59	28.65	–	–	28.6	28.7	
Kroondal	20.5%	UG/OC	(Mt)	3.113	3.227	1.69	1.66	4.80	4.89	PJG/DR
			Cr_2O_3(%)	28.76	28.28	28.6	27.8	28.7	28.1	
Kroondal Gemini	20.5%	UG/OC	(Mt)	7.507	6.288	6.15	6.94	13.66	13.23	PJG/DR
(Kroondal ext)			Cr_2O_3(%)	31.22	31.49	28.5	28.7	30.0	30.0	
Marikana East	20.5%	UG	(Mt)	1.203	0.726	_	0.02	1.20	0.74	PJG/DR
(Kroondal ext)			Cr_2O_3(%)	28.14	28.71	_	27.3	28.1	28.7	
Horizon	20.5%	UG/OC	(Mt)	2.314	1.743	0.15	0.07	2.46	1.81	PJG/DR
			Cr_2O_3(%)	25.51	34.08	25.2	28.5	25.5	33.9	
Boshoek	20.5%	UG/OC	(Mt)	_	_	0.45	–	0.45	_	PJG/DR
			Cr_2O_3(%)	_	_	23.1	–	23.1	_	
Thorncliffe	20.5%	UG/OC	(Mt)	27.788	25.660	4.76	6.56	32.55	32.22	SV/DR
			Cr_2O_3(%)	37.25	37.90	37.9	39.1	37.3	38.2	
Helena	20.5%	UG/OC	(Mt)	4.588	4.131	_	_	4.59	4.13	SV/DR
			Cr_2O_3(%)	35.14	34.96	_	_	35.1	35.0	
Total			(Mt) Cr_2O_3(%)	58.632 33.85	52.999 34.64	14.11 31.3	16.48 32.6	72.74 33.4	69.48 34.2	

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 1.8m 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 layout 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.

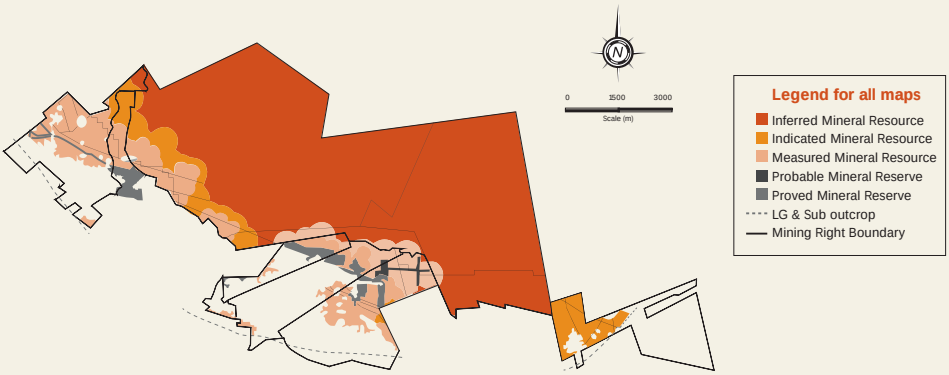
Competent persons;
PJG – Pieter-Jan Gräbe, Xstrata Alloys (SACNASP). Overall responsibility for mineral resources and mineral reserves.
SV – Solly Vaid, Xstrata Alloys (PLATO). Overall responsibility for mineral resources and mineral reserves.
DR – Dean Richards, Obsidian Consulting Services (SACNASP). 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.

For more detailed information on Merafe ownership of specific mines please see page 129 of the annual financial statements

Natural capital

MINERAL RESOURCES AND MINERAL RESERVES (continued)

Mineral resource and mineral reserve maps



Chrome – Bushveld Complex, Western Limb

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

Silica mineral resources

Name of operation	Participation interest	Mining method	Commodity	Measured mineral resources 31.12.12	Measured mineral resources 31.12.11	Indicated mineral resources 31.12.12	Indicated mineral resources 31.12.11	Measured and indicated resources 31.12.12	Measured and indicated resources 31.12.11	Inferred mineral resources 31.12.12	Inferred mineral resources 31.12.11	Competent Person
Operating mine												
Rietvlei	20.5%	OC	(Mt)	–	–	25.12	25.18	25.12	25.18	–	–	PJG
			SiO_2 (%)	–	–	91	91	91	91	–	–	
Total			(Mt)	–	–	25.12	25.18	25.12	25.18	–	–	
			SiO_2 (%)	–	–	91	91	91	91	–	–	

Silica mineral reserves

Name of operation	Attributable portion	Mining method	Commodity	Proved ore reserves 31.12.12	Proved ore reserves 31.12.11	Probable ore reserves 31.12.12	Probable ore reserves 31.12.11	Total ore reserves 31.12.12	Total ore reserves 31.12.11	Competent Person
Operating mines										
Rietvlei	20.5%	OC	(Kt)	–	–	89.4	–	89.4	–	PJG
			SiO_2 (%)	–	–	91	–	91	–	
Total			(Kt)	–	–	89.4		89.4	–	
			SiO_2 (%)	–	–	91	–	91	–	

Notes
Tonnages are quoted as million metric tonnes.

Grades are quoted as %SiO_2.

The Rietvlei silica ore is mined through opencast mining methods and the ROM (run of mine) ore is crushed, washed and sized on site to produce a final sized and quality graded product. No silica cut-off grades are applied to the mineral resource estimation. The quartzite is mined mainly to supply the Xstrata Alloys furnaces with silica.

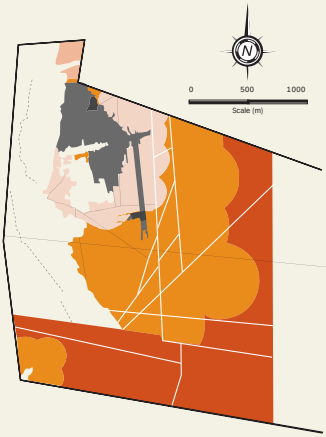
Changes in the year-on-year tonnage and grade estimates are mainly due to mining depletion, reclassification of the mineral resource categories and changes in the mineral resource tonnages and grades due to additional geological information gained through exploration.

No significant changes have been recorded in the year-on-year mineral resource estimation.

Ore reserves for Rietvlei Silica were declared for the first time with the introduction of bench mine plans for the opencast.

The life of mine for Rietvlei Silica mine is four months based on the declared ore reserves and a production rate of 27kt ROM per month. The life of mine period based on all the mineral resources converted to ore reserves is 75 years. The Mining Right expires in 2037.

Competent Person;
PJG – Pieter-Jan Gräbe, Xstrata Alloys (SACNASP), Overall responsibility of mineral resources and mineral reserves

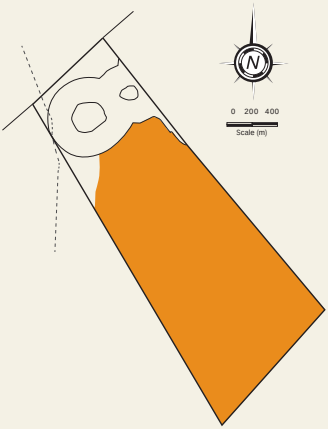


Chrome – Bushveld Complex, Western Limb

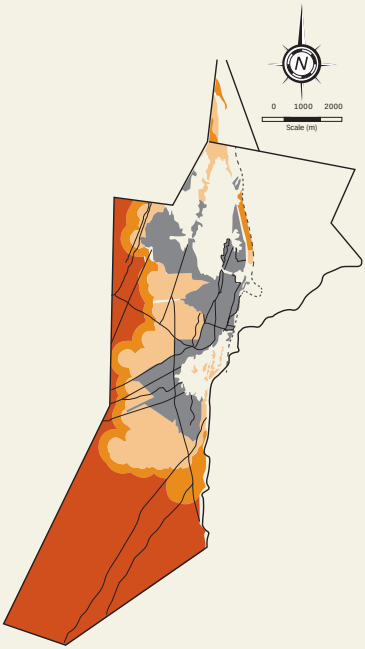
Horizon Mine



Boshoek Mine



Townlands Extension 9



Chrome – Bushveld Complex, Eastern Limb

Thorncliffe, Magareng, Helena and De Grooteboom mines



Silica

Rietvlei Mine



In order to succeed an organisation needs a healthy, motivated and skilled workforce. This section of our report includes information on how we approach the safety, health and wellness and training and development of our employees

SAFETY	**65**
HEALTH AND WELLNESS	**68**
EMPLOYEES	**72**
TRAINING AND DEVELOPMENT	**77**

human capital



Welders at work on the kiln at the Lion II project
Limpopo province

HUMAN CAPITAL

Human capital includes health, safety knowledge, skills, intellectual outputs, motivation and the capacity for relationships of individuals.

Organisations depend on individuals to function. They need a healthy, motivated and skilled workforce. Intellectual capital and knowledge management is also recognised as a key intangible creator of wealth. Damaging human capital by abuse of human rights or labour rights or compromising health and safety has direct, as well as reputational costs.

We enhance our human capital by:

- giving employees and community members access to training, development and lifelong learning and capturing and sharing knowledge
- ensuring adequate safety arrangements in both Merafe and the Venture.

Material issues

The safety of our employees and our contractors

The health of our employees and our contractors

The training and development of our employees and our contractors



SAFETY

Key points

- Zero fatalities
- TRIFR – 4.05
- LTIFR – 1.53
- DISR – 148.30
- The Venture had no safety fines, penalties or prosecutions

Stakeholder impact

The stakeholders most affected by the ability of Merafe and the Venture to keep our employees and contractors safe are their families and dependants. The safety performance of the Venture can also affect Merafe's investors and our business partners because it can impact our financial performance. Trade unions are stakeholders in terms of their responsibility to ensure their members are safe and the DMR's Mine Health and Safety Inspectorate has a mandate to apply the Mine Health and Safety Act (Act No 29 of 1996) in the Venture's operations. Both Merafe and the Venture adhere to the Occupational Health and Safety Act No 85 of 1993 and the Department of Labour's requirements.

Our employees and contractors play a key role in keeping themselves and others safe through their behaviour as leaders, safety representatives, officers and members of a team, the safety training they provide their colleagues, their management of hazards and learnings from high potential risk incidents.

The auditing of the Venture's operations against Xstrata's 17 Sustainable Development Standards identifies any situations or behaviours that could affect safety, the environment, the health of its people and the communities in which it operates. External auditors audit the Venture's operations every three years and all its operations and projects undergo regular sustainable development risk-based audits. While the DMR's Mine Health and Safety Inspectorate also plays an important role in assisting the Venture with keeping its employees and contractors safe, the issuing of Section 54 notices, which bring an operation to a halt until the inspector is satisfied that it is now safe, can impact negatively on production and the morale of the workforce.

The Venture's engagement with safety stakeholders

The Venture engages its employees on safety through green area meetings, induction training, its Business Principles, toolbox talks, occupational health and safety committees and safety training.

It has collective agreements in place with the trade unions and, besides engaging with them in monthly meetings, either the Venture's management or the trade union may call an ad hoc meeting to address any urgent matter. If the trade union raises a safety issue the Venture provides a specific response.

The Venture provides its contractors with its onsite safety requirements in the tender documents and contractor sustainable development packs it issues. Once a contractor is on site members of the Venture's management will have regular ongoing contact with the contractor on sustainabie development matters.

The Venture's policies and approach to safety management

The Venture's operations maintain stringent safety and risk management systems, which we align with the international standards OHSAS 18001 and ISO 31000.

We face the challenge that, as a nation, & **we tend to be risk takers**

Human capital

SAFETY (continued)

Accountability

Safety is always the direct responsibility of Xstrata's senior management, who provide the leadership, systems and processes for the prevention of incidents and the elimination of fatalities in the Venture. The formal management structure documents responsibility for safety from the Xstrata plc board down to each individual Venture employee and contractor.

The Venture puts considerable effort into embedding a safety culture in our operations. Its leaders are aware that they are expected to put safety before production or other considerations and to personally endorse safety initiatives and engage with employees at all levels to discuss safety issues and priorities.

It concludes health and safety agreements with the trade unions.

The sustainable development policies in place in the Venture are aligned with the Xstrata Group Sustainable Development Policy. They set out its commitment to zero injuries and fatalities. Please see the Xstrata Sustainable Development Standards, 3, 4, 5, 6 and 15 at www.xstrata.com/sustainability/our-approach/sustainable-development-framework/standards/

How the Venture measures injuries in its operations

The Venture's key performance measure for injuries is the total recordable injury frequency rate (TRIFR) which measures injuries per one million hours worked by both its employees and contractors. The injuries included in the TRIFR are lost time injuries, medical treatment injuries and restricted work injuries. Xstrata believes the TRIFR is a more complete measure of safety performance than lost time injuries alone.

The Venture's business processes include analysing the root causes of incidents causing injury and developing appropriate programmes to understand, address and eliminate the underlying causes.

What the Venture is doing to make its operations safer

The Venture's management encourages transparent reporting and proactive knowledge sharing across its operations and has made it compulsory for its people to report high potential risk incidents. The Venture assesses accountability, responsibility and consequence in the context of each situation to determine the underlying causes of incidents. The Xstrata Executive Committee receives a report on the investigations of all such incidents and discusses them at its monthly meetings.

In addition, the Xstrata group shares the lessons learnt in the operations it manages during monthly sustainable development conference calls. This approach has allowed it to develop a global reporting culture which provides its management team with the information they need to assess how effective their controls are and to implement improvements. When they feel they do not fully understand a hazard they enlist external experts to assist them in developing appropriate controls.

	2012	2012 target	2011	2010	2009	% difference 2012/2011
Fatality frequency rate (FFR)	0.00	0.00	0.08	0.05	0.05	-100
Lost time injury frequency rate (LTIFR)	1.53	0.88	1.25	0.93	1.34	22.4
Total recordable injury frequency rate (TRIFR)	4.05	4.00	3.90	4.58	4.64	3.8
Disabling injury severity rate (DISR)	149.44	65.11	94.57	84.38	123.48	56.8



During 2012 the Venture experienced an unusually high number of fractures which contributed to its increased DISR. The Venture is investigating the reason for these injuries in order to prevent them in the future.

Reducing contractor management complexity in the Venture

A further safety summit was held with all the Venture's contractors. Focus areas and leading indicators were identified.

The role of training

The Venture's investment in safety training is detailed on page 77 in the Human capital section of this report. It uses virtual reality training, combined with easy to read written instructions, on all our different procedures. The training is designed to ensure that employees cannot complete their training on a procedure until they have shown they fully understand it.

HEALTH AND WELLNESS

Human capital includes health, knowledge, skills, intellectual outputs, motivation and the capacity for relationships of individuals.

Organisations depend on individuals to function. They need a healthy, motivated and skilled workforce. Intellectual capital and knowledge management is also recognised as a key intangible creator of wealth. Damaging human capital by abuse of human rights or labour rights or compromising health and safety has direct, as well as reputational costs.

We enhance our human capital by:

- providing healthcare and training and education in health matters.

Material issues

The health of Merafe's employees and the health of the Venture's employees and contractors, our main concern being the elimination of occupational illnesses from the workplace and health epidemics like HIV and AIDS and tuberculosis (TB)



Key points

- Three noise-induced hearing loss (NIHL) cases – 63% improvement from 2011
- No cases of occupational illnesses, other than NIHL, in the Venture in 2012
- Encouraging employees who test HIV-positive to register for treatment
- The impact of HIV and AIDS and tuberculosis (TB) on our workforce
- The link between TB and AIDS, emphasising the need to significantly increase the Venture's TB programme to provide the highest quality prevention and care for employees and contractors

Stakeholder impact

The stakeholders most affected by the health of our employees and contractors are their families and dependants. The health of our employees can also affect our investors and business partners because it can impact our financial performance. The trade unions are stakeholders in terms of their responsibility to ensure the Venture provides their members with a healthy work environment.

The DMR monitors the Venture's application of the Mine Health and Safety Act and the Department of Labour monitors the Occupational Health and Safety Act. While both Merafe and the Venture's employees are members of medical aid schemes the Venture's contractors often rely on the Department of Health to meet their healthcare needs, including the treatment of TB and the provision of antiretroviral treatment (ART) for those infected with HIV. Currently our employees also rely on the department to provide them with TB screening and treatment.

The Venture's employees and contractors play a key role in keeping themselves healthy by adhering to the occupational health standards in place at its operations. Its total wellness screening and education helps its people stay healthier, by managing or avoiding chronic disease. The Venture's internal audit team audits its operations against Xstrata's 17 Sustainable Development (SD) Standards, which identify any situations or behaviours that could affect the health of the Venture's employees. External auditors also audit the Venture's operations against these standards every three years and all its operations and projects have regular sustainable development risk-based audits. The DMR's Mine Health and Safety Inspectorate can assist in keeping the Venture's employees and contractors healthy and the Department of Health (DoH) has an important role to play in sustaining the health of its contractors and the members of the community in which it works.

Our engagement with these stakeholders

This year, Merafe engaged with its employees on health and wellness matters through a health and wellness day held at its office in November. A nursing sister was available for health risk assessments during which employees' cholesterol, blood pressure and body mass index was assessed. Employees also completed a lifestyle and TB questionnaire. A confidential testing facility was made available for HIV counselling and testing.

The Venture engages with its employees and contractors on health matters through its occupational health and wellness programmes, induction training and occupational health and safety committees. It also provides training and education in health matters to members of the communities in which it operates.

The Venture has collective agreements in place with the trade unions and engages with them in monthly meetings on occupational health matters. If the trade union raises an occupational health issue it is provided with a specific response.

Engagement with the DMR at operational level includes regular visits by Health Inspectors from the Mine Health and Safety Inspectorate and meetings with the DMR and the DoH regarding health issues. The Venture engages with the DoH in order to form partnerships with the department and assist with the provision of health services to members of the communities in which it operates.

See the Training and development section of this report on pages 77 to 78 for details of training and education in health matters provided to community members

HEALTH AND WELLNESS (continued)

Our policy and approach

A business needs a healthy workforce with fewer sickness absences, and employees who are able to work at their full potential.

The health programmes provided by the Venture address occupational illnesses, public health issues and the overall wellbeing of its employees and contractors. It aims to eliminate occupational illness by providing workplaces free of health and hygiene hazards.

It identifies the main health issues affecting its workforce and the local communities and uses this information to address their specific health needs.

Many of the areas in which the Venture operates lack adequate public health facilities for both its employees and the communities. Wherever possible the Venture supplements the existing health facilities, usually through public-private partnerships.

Eliminating occupational illnesses

Typically, occupational illnesses such as NIHL and musculoskeletal illness are only diagnosed some time after the event that caused them. As a result, the occupational illnesses currently occurring in the Venture's operations are usually the result of historic mining and smelting practices. The Venture conducts regular occupational health assessments of the chemical, biological, physical and ergonomic risks at its operations. These assessments help the Venture to manage the occupational health risks in its operations effectively and to minimise the impact of occupational illness through its early identification.

Employees and contractors are made aware of health issues and what they can do to avoid becoming ill. Employee representatives are members of the Venture's formal joint management-worker health and safety committees, which monitor and advise on occupational health and safety programmes.

The Venture has identified noise-induced hearing loss as a major occupational health risk for its employees and has implemented hearing conservation programmes to counteract this risk. Any of its workers exposed to the internationally accepted noise level limit of 85 decibels or above must wear hearing protection. The equipment it provides includes variphones, which are custom-made for comfort and are 100% leak tight. Employees are trained in the use, maintenance and storage and care of this equipment.

Any employees or contractors at risk of being exposed to noise that could damage their hearing are personally monitored and regularly tested as part of our hearing conservation programmes.

Wherever possible the Venture reduces the noise from the equipment it uses in its operations to levels below the internationally recommended standards using design modifications, exclusive zones and “buy quiet” programmes for new or upgraded equipment. The Venture's operations are committed to reducing machinery noise to less than 110 decibels by 2013.

Our policy and approach to HIV and AIDS

HIV and AIDS is a human rights issue, which Merafe and the Venture address through their policies and programmes. To ensure these policies are accessible to the Venture's employees and contractors, they are available in all the languages spoken by its employees.

Employees can choose to receive HIV and AIDS counselling, care and support. The HIV-positive employees of both Merafe and the Venture receive the treatment they need free of charge, together with the support and education that will make it possible for them to maintain their antiretroviral (ARV) treatment programme through the membership of a medical aid.

The Venture's HIV and AIDS policies commit it 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 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 with local, provincial and national government structures in joint projects to fight HIV and AIDS in the communities in which the Venture operates
- facilitating the training of peer educators and establishing and training home-based care workers through the Venture's corporate social investment programme.

All the Venture's occupational health nurses have been trained in the management of TB and HIV and the impact of HIV on TB. All employees that visit its occupational health clinics are screened for TB. Those whose screening tests indicate they may have TB are referred to public healthcare facilities for TB investigation and treatment.

The Venture's negotiations with the Department of Health in Limpopo and North West provinces regarding collaboration on TB and HIV programmes are at an advanced stage.

The HIV prevalence rate in the Venture in 2012 was 17%.

Summary of 2012 HIV results for the Venture

	Number
Employees who received pre-test counselling	6 781
Employees tested	6 522
Employees who did not test	259
Employees who tested positive	376

CASE STUDY –
HEALTHIER EMPLOYEES EQUALS PRODUCTIVE WORKFORCE

A trio of medical services makes for a healthier, more productive workforce

Impact:
- Easily accessible consistent quality healthcare for our employees
- A healthier more productive workforce
- Reduced absenteeism

The Venture's Eastern mines' occupational health and wellness centre is the first of its centres to combine occupational health, wellness and a new addition, primary healthcare, under one roof.

The advantages of the three-in-one combination soon became apparent when Sister Erika Steyn, the occupational health practitioner responsible for managing the centre, took us on a tour of the busy centre, which conducts about 7 500 occupational health examinations every year. In 2011 the centre conducted 7 777 occupational health examinations, attended to 988 primary healthcare cases and 4 694 people visited its wellness centre.

Phase 1 – legal compliance

The Venture's clinics have always provided occupational health services in terms of the Mine Health and Safety Act No 29 of 1996, which requires that it establishes a system of medical surveillance, keeps a record of medical surveillance, provides annual medical reports and exit medical certificates and attends to injury on duty cases and occupational disease management.

Phase 2 – moving towards healthier employees through wellness screening

The Venture's inclusion of total wellness screening and education helps its people keep healthy and productive, by managing or avoiding chronic disease. The Venture monitors its workforce for signs of chronic illness by checking for hypertension, diabetes and cholesterol. Its medical aid provides permanent employees with ART and the Venture has arranged for its contractors to receive ART through Right to Care.

After an employee is referred for TB treatment they are monitored through our return to work programme. TB patients cannot return to work until the occupational medical practitioner has declared them fit to do so.

Phase 3 – towards a healthier more productive workforce and a reduction in absenteeism through the provision of easily accessible consistent quality healthcare

The one thing that was still missing in terms of the management of the Venture's employees' health was primary healthcare.

Since it is often difficult and time consuming for employees to access external primary healthcare services, and the quality of the services available to them is not always up to standard, the Venture decided it needed to find a way of providing them with easy access to consistently good quality primary healthcare and reducing the amount of time they were spending away from work accessing external primary healthcare services.

Its solution was to make available a fulltime medical doctor with a dispensing licence who provides a primary healthcare service at the Venture's clinic. Any employee who is unwell at work can consult with the doctor, be issued with medication should they require it and either go back to work or be booked off sick, depending on the doctor's diagnosis.

What is the impact?

Since the primary healthcare service opened its doors in 2010, about 2 500 employees have used the service and absenteeism has decreased.

The Venture aims to provide & **easily accessible** healthcare

Human capital

OUR EMPLOYEES

Organisations depend on individuals to function. They need a healthy, motivated and skilled workforce.

Intellectual capital and knowledge management is also recognised as a key intangible creator of wealth. Damaging human capital by abuse of human rights or labour rights or compromising health and safety has direct, as well as reputational costs.

We enhance our human capital by:

- giving employees and community members access to training, development and lifelong learning and capturing and sharing knowledge
- respecting human rights
- paying fair remuneration to our employees and our business partners
- creating satisfying work opportunities.

Material issues

- Industrial action in the mining industry and the Venture
- Retaining skilled employees and securing the next generation of skilled employees
- Meeting our employment equity and human resource development targets and exceeding the Mining Charter Scorecard targets
- Employee satisfaction
- Maximising local employment in the Venture



Key points

- 4.6% increase in the Venture's fulltime employees which created 275 additional fulltime positions in 2012
- 15% of the Venture's workforce was female in 2012
- The Venture exceeded Mining Charter employment equity targets in 2012
- Merafe exceeded Mining Charter employment equity targets in 2012

Stakeholder impact

Our success or failure in this area will affect our financial performance in the short, medium and long term, which could impact our shareholders. The stakeholders involved in the Venture's efforts to meet the Mining Charter Scorecard employment equity and human resource development targets are the DMR, the Department of Education, the Venture's leadership at all levels and its human resource development specialists. As the Venture's performance in this area could affect its ability to operate, it is also a concern of Merafe's investors and the communities in which the Venture operates. The trade unions are also stakeholders in terms of their responsibilities towards their members

The leaders of Merafe and the Venture, from supervisors to senior management, can have a positive or negative impact on our ability to retain and secure skilled employees because they play an important role in providing a workplace that is free from discrimination and conducive to employee satisfaction. They also play an important role in the development of Merafe and the Venture's employees and the Venture's ability to meet its Mining Charter Scorecard targets. The ability of the Department of Education to ensure that South Africa's youth receive an education that will qualify them for employment in the mining industry will either limit or increase the availability of suitably qualified matriculants.

Our engagement with our stakeholders

Both Merafe and the Venture initially engage with their employees through their induction programmes which introduce new employees to both companies' codes of conduct* and the Venture's induction also introduces employees to its Business Principles and 17 Sustainable Development Standards.*

The Venture's leaders engage with their teams face-to-face through green area meetings, toolbox talks and performance reviews. The Venture also engages through paper-based and electronic company and operation newsletters and face-to-face addresses by senior management. It reports annually to the DMR on its progress against its Mining Charter Scorecard targets and engages with the Department of Education on education matters.

The Venture's policies and approach to its employees

The Venture complies 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 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.

Both Merafe and the Venture are committed to providing a workplace based on:

- mutual respect
- fairness
- integrity
- non-discrimination
- equal opportunity at all levels
- open and two-way engagement with our employees and their representatives.



See www.meraferesources.co.za for Merafe's Code of Ethics and see www.xstrata.com/about/key-policies for Xstrata's Code of Conduct and its Sustainable Development Standards

OUR EMPLOYEES (continued)

The Venture's Sustainable Development Policy sets out the principles it applies to the management of its people. Sustainable Development Standard 3, Behaviour, awareness and competency of its 17 Sustainable Development Standards, describes the Venture's aim of attracting and retaining the best people at every level of its business and of providing industry-leading career development opportunities and competitive remuneration. Its policies clearly state that the Venture does not tolerate any form of discrimination and that it will treat all its employees with dignity and in a manner that is culturally appropriate, irrespective of gender, background or race.

Employee relations

The Venture's workplace agreements specify notice periods and it consults with employees before any significant operational changes. In line with its Sustainable Development Policy it consults and communicates with its employees and provides them with appropriate support during significant organisational changes. The Venture's management team always consults with the aim of reaching agreement with trade unions.

Employee remuneration

Both Merafe and the Venture provide well-structured employment contracts and fair and competitive remuneration. We offer an equal rate of pay to male and female employees of equal experience. Our employment equity policies provide all potential and existing employees with equal opportunities in terms of recruitment, promotion, transfer, employee benefits, training and conditions of service.

The Venture bases its minimum wages on union agreements and pays all its employees according to the standard minimum, or above.

Employee benefits

The benefits that the Venture provides its fulltime employees, over and above the legally mandated employment benefits, include retirement benefits in the form of provident funds, medical scheme benefits and assistance with housing loans. It does not offer these additional benefits to temporary or part-time employees. During 2011 the Venture offered all its A to C band employees (non-managerial employees) the opportunity to participate in an employee share ownership plan (ESOP) which will own a 3% share in the assets of Xstrata South Africa.

Labour relations

While Merafe's employees are not unionised we consult with them in advance of any significant changes to our business.

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.

Collective bargaining and freedom of association are considered a fundamental right for the Venture's employees. Collective agreements, particularly around terms and conditions of employment and company benefits, are negotiated between the parties with due regard to the relevant legislation. The Venture seeks to reach agreement with the unions on annual wage increases for implementation in July each year. In all, 60.3% of the Venture's employees are covered by a collective bargaining agreement.

Engagement plays a very important role in labour relations and resolving disputes amicably. The Venture uses a number of communication methods to engage with its employees including daily briefings, formal newsletters, electronic messaging, pamphlets and using external mediators to facilitate discussions.

The Venture is committed to treating all its employees 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.

Industrial action in the Venture in 2012

The Venture's operations were not immune to the unrest that affected the South African mining industry during 2012.

Operation	No of days
Boshoek ferrochrome plant	51 days
Lion Phase II	19 Days
Rustenburg ferrochrome plant	36 days
Wonderkop ferrochrome plant	49 days
Kroondal Mine	42 days
Waterval Mine	2 days
Waterval Mine	34 days



For detailed information on industrial action see our website www.meraferesources.co.za

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

Category	2012	2011	2010	% change year-on-year
Fulltime employees	6 461	6 171	6 337	4.7
Temporary/fixed term employees	258	273	212	-5.5
External contractors	6 379	6 511	4 166	-2
Total	13 098	12 955	10 715	1.1

Some of the participants in this strike resorted to violence and when the police had to intervene and made arrests they discovered that only 50% of the violent protesters were employees of the Venture. This was a concerning aspect of the violence experienced during unprotected strike activity in the mining industry in 2012.

Maximising local employment

Hiring policies

When hiring employees we give preference, where possible, to members of the local community and, in some instances, we offer training opportunities to community members to develop the skills they need to become our employees.

Diversity and equal opportunity

Xstrata South Africa's Transformation Committee (on which Merafe is represented) monitors and helps the Venture to find innovative and effective ways of addressing transformation.

Management and site employment equity committees monitor employment equity in the Venture's operations every month and report the results to the Venture, Merafe and the Xstrata South Africa Transformation Committee, which in turn reports to the Xstrata plc board.

We base our employment equity policies on providing equal opportunities to all potential and existing employees.

Employee challenges

- Maximising local employment in the Venture
- Achieving employment equity that is supported by everyone in the workplace
- Making careers in mining more accessible to women in the Venture
- Engaging with the Venture's employees and the trade union through open communication channels to achieve labour peace
- Providing a workplace that is free of discrimination
- Establishing an employee share ownership plan (ESOP) for the Venture's employees

Venture workforce by employment type and gender in 2012

Permanent and fixed term	Male	Female	Total
Senior management	86	7	93
Middle management	137	40	177
Supervisors, administrators, technicians	681	609	1 290
Operational, maintenance, production	4 859	300	5 159
Grand total	5 763	956	6 719

The Venture invested

& **R45 million**

in artisan and apprenticeship training.

Human capital

OUR EMPLOYEES (continued)

Venture and Merafe top management

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

The diversity in the top management teams of the Venture, the partners responsible for the management of the Venture, is as follows:

- Diversity at board level in Xstrata is 33%
- Diversity at board level in Merafe is 82%.

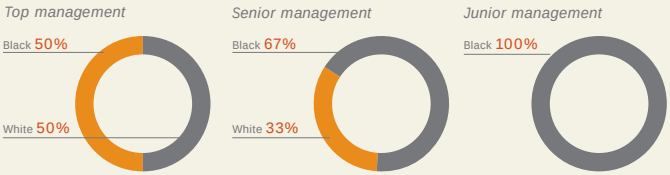
Both companies have exceeded the Mining Charter diversity target for 2012, which was 30%.

Venture employment equity

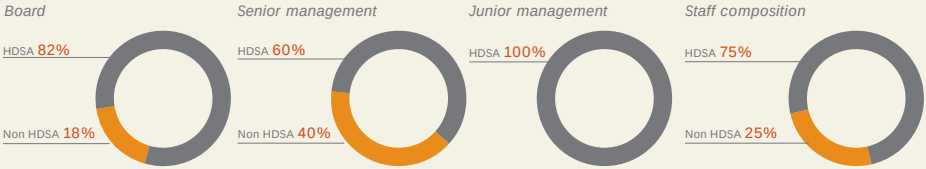
	% target 2012	% achieved in 2012	% Mining Charter target for 2013
Senior management	30	32.63	35
Middle management	40	59.44	40
Junior management	40	54.33	40
Core skills	30	84.80	35

Merafe's employment equity in terms of the B-BBEE Act and Codes of Good Practice and HDSAs in management in terms of the Mining Charter 2010 as at 31 December 2012

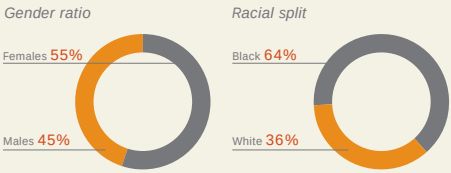
Employment equity in terms of B-BBEE Act and Codes of Good Practice in Merafe Resources



Percentage of HDSAs* (in terms of the Mining Charter 2010) in Merafe Resources



Employees



** In terms of the Mining Charter white women are considered to be HDSA.*

TRAINING AND DEVELOPMENT

Key points

The Venture invested R59.7 million in training in 2012, a 17% increase year-on-year

An average of R4 558.50 was invested in training for each member of the Venture's workforce (employees and contractors)

There was a 17% decrease in the hours of training provided to the Venture's employees and contractors (553 950 hours) in 2012

On average employees each received 42 hours of training, a 19% decrease year-on-year

217 624 hours of training were provided for contractors, an increase of 6.6% year-on-year, with contractor employees receiving on average 34 hours of training during the year

Stakeholder impact

Our employees and contractors are key stakeholders in our business and we regard constructive engagement with them and our trade union as a critical success factor. Our shareholders will be impacted if we do not successfully retain and develop our employees.

Development and training

Both Merafe and the Venture are committed to meeting our human resource development targets and retaining and developing our skilled employees.

The Venture provides:

- development and training opportunities for HDSAs that will help them to further their careers
- career development opportunities that allow it to develop and retain high potential employees
- training that addresses risk-tolerant or ingrained behaviours that impact negatively on our operations
- training in its Business Principles, Sustainable Development Policy and 17 Sustainable Development Standards.

It continually evaluates its training methods and the best way to communicate with the various age groups and cultures in its workforce.

Type of training provided

The Venture's employees received environmental, health, human rights and safety training.

Training sessions for the Venture's employees in 2012 included:

- 34 999 hours of safety training
- 7 513 hours of environmental training
- 7 362 hours of health issue training
- 4 549 hours of human rights training.

Our approach

Both Merafe and the Venture's long-term interests depend on our ability to attract and retain the best people and to transform our workforces. We identify employees with high potential at every level and are committed to providing them with the support and tools they need to develop.

The Venture uses surveys to assess employees' satisfaction levels and to find out about issues that it may need to address. It records and addresses these issues and provides its employees with feedback in this regard.

Since 2011 the Venture has extended its annual individual performance management and development reviews to include all supervisory level employees (16% of employees), introduced team performance reviews for all its employees and extended annual individual performance management and development reviews to include supervisory level employees (16% of the workforce).

For details of training in the Venture see www.meraferesources.co.za

TRAINING AND DEVELOPMENT (continued)

All the Venture's employees have job descriptions and action plans, which they can use to set career objectives for themselves and to measure their own performance. Its managers are trained to conduct performance reviews and give effective feedback.

Each operation in the Venture has a workplace skills planning committee, which is responsible for identifying the operation's specific training requirements. The Venture structures its training to meet these specific needs. This includes providing training to local community members in skills that will equip them to seek employment in its operations.

The Venture, as part of Xstrata Alloys, shares a joint training provider accreditation with Xstrata Coal.

The Venture's operations are spread across three provinces, which requires it to provide training centres at most of its operations. The Steelpoort Development Centre in Limpopo province provides training facilities for the Lion ferrochrome plant, the Lydenburg ferrochrome plant and the Thorncliffe, Helena and Magareng mines. It also provides training to employees of other mining companies in the area. The Centre not only trains members of the community in skills that will equip them to work in the Venture's operations, but also offers training in marketable skills including bricklaying, welding and household electrical skills. The Centre also offers a bridging programme that prepares local students for tertiary education.

To address the shortage of mining, engineering and related skills the Venture offers bursaries for fulltime university and technikon studies in the mining, electrical, metallurgical and mechanical engineering fields, geology, occupational hygiene, financial management, information technology, science and commercial accounting.

It also offers graduate trainee positions, work placement for students as well as financial assistance focusing on members of the communities in which it operates. A mentorship and coaching programme supports employees who receive educational assistance, those who have entered into learnership agreements and those identified for accelerated development.

Apprenticeships, learnerships, bursaries and scholarships

R45 million invested in artisan and apprentice training, 96% of whom were HDSA

Over R8 million invested in bursaries and scholarships, 73% of which were awarded to HDSAs

88% of the Venture's investment in skills development was in HDSAs (over R52 million)

The Venture also provides fulltime adult basic education training (ABET) for its employees and portable skills training that equips employees for career endings.

Leadership development

The Venture invites managers whom it has identified as having leadership potential to participate in a leadership programme where members of its senior management team mentor participants. It also provides them with additional training, support and career development opportunities. Over 80% of the managers participating in our leadership development programmes are HDSAs.

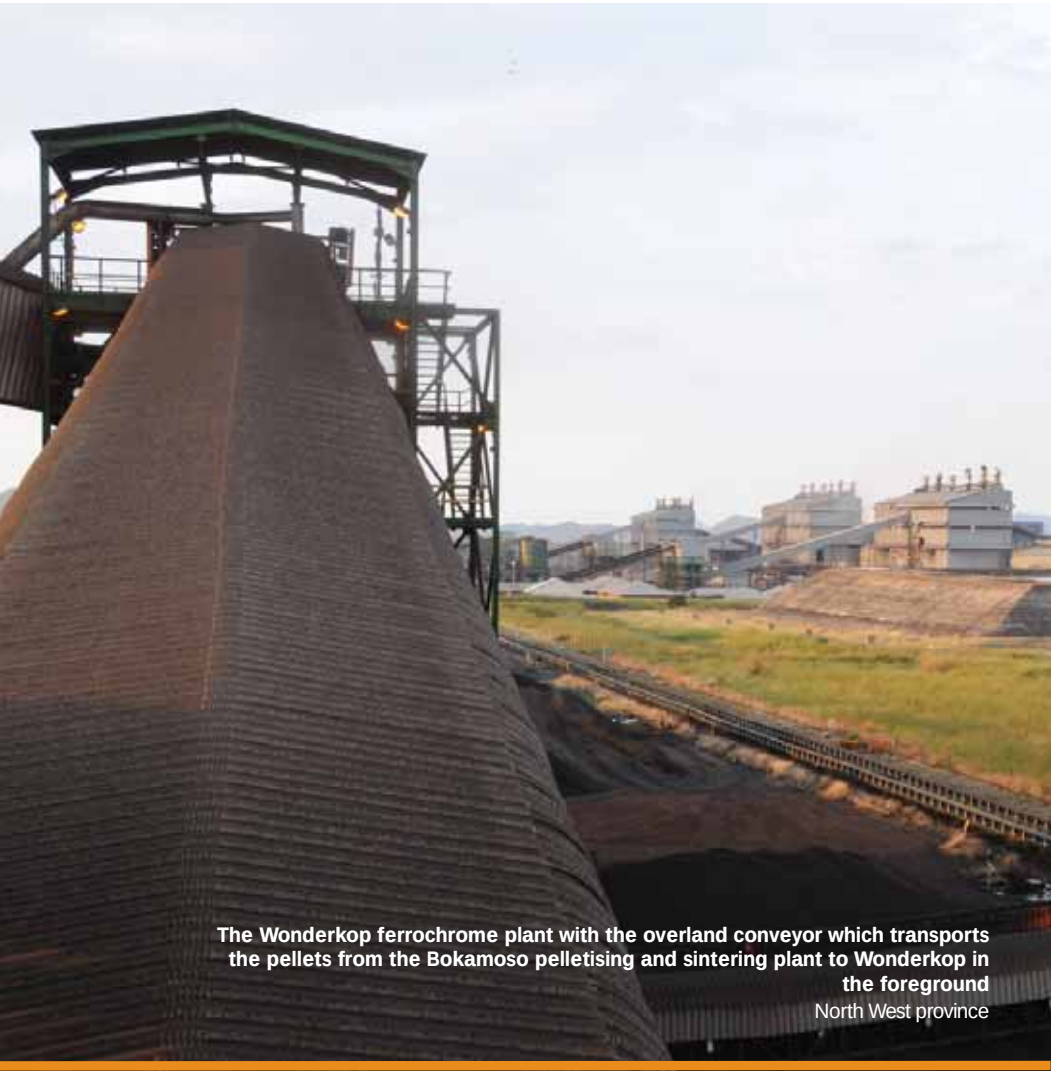
Xstrata employs a devolved business model in the operations it manages, with responsibility and authority being delegated to business units and with management teams expected to run independent businesses. While managers new to this type of culture might find it challenging, the Venture invests in developing the kind of leaders that will support and reinforce it. It offers programmes through leading South African academic institutions that support its leadership requirements.

In 2012 senior managers from the Venture participated in the Wits Business School's Certified Programme in Management Development.

Our success depends on how we

& **attract and retain**

our workforce



The Wonderkop ferrochrome plant with the overland conveyor which transports the pellets from the Bokamoso pelletising and sintering plant to Wonderkop in the foreground
North West province



This section of our report looks at our approach to adding value and creating a stable society in which to operate through our social responsibility and our approach to transparency and accountability

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REMUNERATION REPORT 109

social capital



Production Engineer, Charlotte Ntsole, at work on the new Tswelopele pelletising and sintering plant
North West province

SOCIAL CAPITAL

Social capital is any value added to the activities and economic outputs of an organisation by human relationships, partnerships and cooperation.

Organisations rely on social relationships and interactions to achieve their objectives. Externally, social structures help create a climate of consent or a licence to operate, in which trade and the wider functions of society are possible. Organisations also rely on wider socio-political structures to create a stable society in which to operate, e.g. government and public services, effective legal systems, trade unions and other organisations.

To enhance social capital we:

- contribute to open, transparent and fair governance
- source materials ethically and treat suppliers, customers and citizens fairly
- respect and comply with local, national and international law
- pay our taxes
- invest in the social infrastructure
- provide communication
- minimise any negative social impacts of our operations and maximise the positive impacts they can have
- support the development of the communities in which the Venture operates.

Material issues

Our social licence to operate

Uncertainty of the socio-political environment



SOCIAL RESPONSIBILITY

Key points

- 55% of the Venture's discretionary procurement was from black empowered companies (R4.2 billion)
- The Venture invested R58 million in enterprise development
- The Venture spent R31.8 million on corporate social investment in 2012, which was an increase of 34% year-on-year
- 100% of Merafe's social investment was in community education
- Increasing procurement from small and medium enterprises and black economically empowered (BEE) enterprises and enterprises local to the Venture's operations
- Enhancing the socio-economic capacity, prosperity and sustainability of the communities in which the Venture operates
- 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
- Anti-mining sentiment

Stakeholder impacts

While Merafe has direct relationships with certain key stakeholders in connection with community matters, we also have indirect relationships through our partnership with Xstrata in the Xstrata-Merafe Chrome Venture. As managers of the Venture's day-to-day operations, Xstrata takes responsibility for engaging with the Venture's stakeholders. All the Venture's operations and projects are expected to review the stakeholder engagement plans every year. The Venture's operations held formal community stakeholder meetings during the year. Details of the Venture's engagement and Merafe's engagement during 2012 can be found in the stakeholder engagement tables on our website.

The efforts of Merafe and the Venture to address the various material issues we have identified that could impact negatively or positively on our key stakeholders involve national, provincial and local government in their roles as regulators and partners; the trade unions in their role as representatives of the Venture's employees who are from local communities; and our investors and business partners who are affected by all aspects of our business.

The communities in which the Venture operates play a significant part in our ability to do business. They provide the Venture with employees who make an important contribution to its success. Most of these communities live in poor, underdeveloped areas of the country. In their frustration at the lack of jobs, facilities and infrastructure they are turning to the mining industry to address their needs. The growing social activism in these communities can, and has had a negative impact on the Venture's business.

The Venture identifies its impact on host communities, both positive and negative, using social and human rights baseline studies and risk assessments. Both Merafe and the Venture work closely with communities, government and NGOs to gain multiple perspectives of our impacts and possible impacts with the aim of addressing the concerns of, and our impacts on, the most vulnerable people affected by the Venture's operations.

The Venture maintains a register of community complaints at every operation and it deals with complaints at operational level.

Anti-mining sentiment

The engagement between mining companies and the communities in which they operate is becoming increasingly challenging. Mining communities are turning to the mining industry to address poverty, unemployment and the need for basic infrastructure and services.

The Venture's approach to social and community engagement, as set out in its Sustainable Development Standards, sees consultation with communities as an essential part of its approach to doing business, managing risk and addressing the short-, medium- and long-term sustainability of its business and the communities in which it operates. However, the Venture recognises that this engagement requires an ongoing commitment to building relationships, trust and understanding with the communities.

Social capital

SOCIAL RESPONSIBILITY (continued)

During 2011 the Venture arranged for consultants to carry out baseline studies of the communities in which it operates. The purpose of the studies was to identify the socio-economic needs of these communities and to be clear about their expectations and how best to manage them, develop trust between Xstrata and the communities; and identify the role and responsibilities of the different role players in the area.

The studies revealed that in the Limpopo province there are high expectations of what the Venture can do or should be doing for the communities and in many cases these expectations are unrealistic. Trust levels are low between community members and all types of leadership. Because everyone is fending for him or herself in these communities it is very difficult for the Venture to establish agreement on what the communities as a whole need. To begin to address this situation the Venture has embarked on a proactive, ongoing comprehensive communication strategy with the aim of keeping these communities informed of the Venture's plans in terms of its investment in the communities and what the expected outcomes are. The Venture is also investing in training and education with the aim of strengthening the capacity of local leadership in the area.

In the North West province, while communities do not blame the Venture for the lack of progress with regard to basic infrastructure, health services, job opportunities, etc, it is clear that they are at breaking point and as happened during 2012 this type of desperation easily transforms into violent protests. Communities said they are not kept informed of what the Venture is doing for them, what it plans to do, new developments, job and procurement opportunities, etc. The Venture has worked hard during 2012 to improve its communications with communities, which has included regular newspaper advertorials covering its investment in health, education, enterprise development and infrastructure and educational radio programmes.

Socio-economic development

Both Merafe and the Venture are committed to uplifting communities by investing in their education and skills development.

Education

- **Merafe spent 100% of its social investment on education in 2012, which amounted to R3.3 million**
- **R11.5 million of the Venture's social investment was spent on community education in 2012**

As part of its corporate social investment programme Merafe has supported Protec, which provides science, mathematics and technology programmes and materials to schools in the Rustenburg area, since 2010. When members of our board visited two of the nine schools in the programme they were concerned by the lack of suitable infrastructure at the schools. We decided to engage with the schools, identify their needs and involve their governing bodies in sourcing quotes and

The Venture's corporate social investment

	2012 R'000	2011 R'000	2010 R'000	2009 R'000	% difference year-on-year
Community and social development	2 845	2 200	19 330	7 379	(40)
Culture/art		–	1 028	10	–
Education	11 562	5 664	16 013	10 647	49
Enterprise development and job creation	5 847	11 398	18 204	9 910	-46
Environment		–	50	100	–
Health	3 662	916	5 464	6 456	90
Personnel time – in-kind donations	7 926	2 856	641	1 625	(44)
Total	31 842	23 834	60 730	36 127	(26)

& **275** new jobs
created by the Venture this year

local service providers to undertake the work required. When we engaged with the schools' governing bodies we realised that they lacked the knowledge and skills necessary to manage the project. To remedy this we brought in the Adopt a School Foundation, which has a holistic approach to school education improvement and, after identifying the needs of a school, actively seeks funding to implement the necessary reforms by developing the necessary management and community leadership skills that will ensure the quality, credibility and sustainability of our investment.

Job creation and skills development

- **The Venture created 275 new jobs this year**
- **Local people make up over 50% of the Venture's workforce**

The Venture has embarked on a number of skills and enterprise development projects in the communities in which it operates, including learnership programmes, secretarial training, training of students for the Department of Civil Works and portable skills training such as electrical and plumbing training.

In addition to the employment created by the Venture's operations its investment in infrastructure development also creates jobs. While these jobs may only be temporary, the people employed to do them learn portable skills such as bricklaying, welding and carpentry, which equip them better for finding fulltime employment.

Procurement

- **Fifty five percent of the Venture's discretionary procurement in 2012 was from black-empowered companies (R4.2 billion)**

Every year the Venture sets itself targets for its discretionary procurement from historically disadvantaged South Africans (HDSAs), which exceed the targets set in the Mining Charter Scorecard. It also aims to purchase as much as possible from local suppliers.

Discretionary procurement

- **The Venture's discretionary procurement for capital goods exceeded the Mining Charter Scorecard target for 2014 by 27%, its consumable target was exceeded by 33% and the services targeted by 10%**

	Total spend 2012 R'000	BEE spend 2012 R'000	BEE spend %	Mining Charter targets for 2012 %
Capex	2 565 554	1 200 644	47	20
Consumables	2 767 239	1 593 408	58	25
Services	2 324 969	1 387 279	60	50

Enterprise development

- **The Venture invested R5.8 million in enterprise development in 2012 and Merafe invested a further R400 000 in the Vuka mentorship programme**

With a national unemployment rate of around 25%, South Africa urgently needs to create employment opportunities. Small, micro and medium enterprises (SMMEs) play a key role in job creation with the Adcorp employment Index indicating that 68% of the 13.8 million people working in South Africa are employed in businesses with less than 50 employees.

Enterprise development is an important part of the investment both Merafe and the Venture make in the socio-economic capacity of communities. Both organisations recognise that it is an investment that makes good business sense as developing SMMEs and creating jobs stimulates growth, increases our ability to procure from black-owned enterprises and benefits us all. In addition, the Venture has enterprise development commitments in terms of the Mining Charter Scorecard and any investment in enterprise development also contributes to Merafe's performance in terms of the broad-based black economic empowerment (B-BBEE) codes.

When Merafe commissioned research into suitable enterprise development opportunities in the Rustenburg area during 2012 it highlighted the important role business development support service providers play in increasing the success rate of SMMEs. The research also indicated that business support is most effective when provided to businesses in start-up phase.

Social capital

SOCIAL RESPONSIBILITY (continued)

Merafe selected the *Grow your Business* programme to work with six SMMEs from the communities in the vicinity of the Boshoek ferrochrome plant and the Horizon mine (these are the assets that Merafe pooled with Xstrata's assets in 2004). These businesses will be mentored over a 12-month period with the aim of increasing their growth and financial stability and also creating more employment. The six businesses will be selected by means of a rigorous selection process that will include an in-depth assessment of each business. During the 12 months of their mentorship, in addition to weekly visits from their mentor the businesses will have access to an online mentorship tool, which tracks key business indicators including cash flow, number of employees, progress against gaps and areas for development identified at the initial assessment of the business.

The Venture supports enterprise development through a number of initiatives. Small businesses often have difficulty obtaining loans from financial institutions because they do not meet their stringent requirements for the granting of credit. The Venture assists companies in this position with start-up and bridging capital and loans with preferential terms. It also offers management expertise in areas such as project management, business planning, cash flow management and legal compliance as well as providing appropriate skills training.

The Venture offers community members ABET, computer literacy training and training in portable skills. 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 and engineering workshop training for further education and training (FET) lecturers. The Centre not only trains members of the community in skills that will equip them to work in the Venture's operations but also offers training in marketable skills including bricklaying, welding and household electrical skills. The Centre has expanded its programmes to include a bridging programme that prepares local students for tertiary education.

Public health and HIV and AIDS

The Venture partners with government, international organisation and NGOs, particularly in the areas of public health, to get the best possible value out of our community investment. The public-private partnerships formed by the Venture provide communities access to prevention, treatment and care for HIV and AIDS, as well as other communicable and associated disease. The Venture supports the government's HIV counselling and treatment (HCT) campaign by providing funding and testing sites. It has also funded clinics and hospices in the communities in which it operates, including an HIV and AIDS clinic in Lydenburg in Mpumalanga province. There is also a clinic at the Lion ferrochrome plant in Limpopo province.

During 2012 the Venture also supported the Tapologo hospice which is a well-designed award-winning 34-bed facility and the only 24-hour hospice facility in the area where it operates in the North West province. The main objective of this hospice, which was previously supported by Merafe, is to provide care for AIDS patients in the terminal phase of the disease and symptom control for patients who need to be stabilised before starting ART. It also offers support to families who are unable to cope with an ill family member and aims to reach people in communities that suffer from general poverty, lack of resources and limited access to essential services, who are infected and affected by HIV and AIDS and other terminal illnesses.

Since 2009 the Venture, in partnership with the Regency Foundation, has invested in an HIV and AIDS education and prevention programme for pupils between the ages of 12 and 15, called *HIV & Me*, reaching over 3 500 learners and 126 educators in a year.

Respecting the rights of communities

Challenges

- Compliance with South African human rights legislation including the Constitution and Bill of Rights
- Alignment of our human rights practices with the UN Global Compact's ten universally accepted principles in order to protect the human rights of our employees and the communities in which we operate

& 100%
of Merafe's social investment was spent on community education in 2012

Our approach

Both Merafe and Xstrata respect the legislation of South Africa and comply with its human rights legislation, including the Constitution and the Bill of Rights, which safeguard the basic human rights of employees in South Africa. In addition, the policies of both companies clearly state that we do not tolerate any form of discrimination and that all our employees and stakeholders are to be treated with dignity and in a manner that is culturally appropriate, irrespective of gender, background or race. Xstrata supports the United Nations (UN) Universal Declaration of Human Rights and the International Labour Organisation (ILO) Conventions and is a signatory to the UN Global Compact. It has aligned its Sustainable Development Framework, which is applied in all the operations it manages, including the Venture, with its ten universally accepted principles in the areas of human rights, labour, the environment and anti-corruption.

Xstrata's Sustainable Development Standards require the operations it manages to maintain community relations strategies that uphold and promote human rights and respect cultural considerations and heritage.

In 2008 Xstrata committed to implementing the Voluntary Principles on Security and Human Rights across all the operations it manages. The Voluntary Principles were drawn up to guide companies in maintaining the safety and security of their operations within an operating framework that ensures respect for human rights and fundamental freedoms. The Principles highlight the role companies can play in promoting respect for human rights

CASE STUDY – MEETING ONE OF THE GREATEST CHALLENGES OF ENTERPRISE DEVELOPMENT

Finding ways to help micro and very small businesses move beyond the subsistence level to become profitable and self-sustaining is one of the greatest challenges facing enterprise development programmes.

R660 000 and a lot of initiative from community members
Result: a sustainable micro business

Five years ago the Venture, as part of its social and labour plan projects in Limpopo, adopted a group of women who had already taken the initiative to start sewing and selling clothes to make a living.

When they started they borrowed the regional chief's boardroom. Today they have their own premises which the Venture built for them.

Initially the Venture bought them domestic sewing machines but as their business expanded these machines weren't sufficiently robust or fast enough to cope with the volume of orders they had. Now they have nine industrial machines, a buttonholer and a machine that embroiders and they have been given training in how to operate these very complex machines. When we visited the project we saw piles of school uniforms, anoraks with beautifully embroidered school crests, overalls, traditional dresses and security vests all ready to be despatched to their customers.

The Venture is delighted that its investment has allowed these enterprising women to develop a sustainable business through their own initiative. They didn't wait for others to help them, instead they went out and found customers and asked for financial assistance from us. Because they ensure that the work they deliver to their customers is always of a high standard, they generate repeat orders.

The Venture's Limpopo operations have arranged for their suppliers to commission the project to manufacture their safety jackets. These suppliers have also shared their expertise in setting up a factory-style production line and purchasing fabric at more economical prices with the project team and have given them additional training on their new equipment.

The Venture also introduced the project team to Sage Wise, specialists in capacity building in small businesses, who are training them in business management and advising them on how to comply with statutory requirements.



SOCIAL RESPONSIBILITY (continued)



and strengthening the rule of law. Xstrata continues to implement the requirements of the Voluntary Principles at all the operations it manages, including the Venture. These requirements encompass human rights risk assessments, relations with public security forces and relations with private security providers. Xstrata reports annually on its progress in upholding the Voluntary Principles.

Xstrata participates in the ICMM Resource Endowment Initiative. The Initiative aims to identify the factors that have allowed some countries to benefit from their substantial resource endowments through economic growth and poverty reduction and to determine practical steps that companies, governments, local communities and aid agencies can take to build capacity to achieve better outcomes from resource development where this is lacking.

Resettlement

In the course of conducting business the Venture may need to disturb land used by the local community. It always tries to find ways to avoid resettling community members, but when this is the only viable course of action it consults closely with the affected population to develop an equitable solution. It is the Venture's policy to seek the free, prior, informed consent of communities. Whenever the Venture relocates a community it communicates openly with local community members to inform them of its plans and all their available options. The Venture's team works with the affected households to find a suitable new area for them to live and work and to ensure that relocation provides them with an equivalent or improved standard of living that is sustainable in the long term, as well as education for the affected households.

The Venture works with the community to create economic development and opportunities for quality of life improvement. No resettlements took place in the Venture during 2012.

Child and forced labour

Xstrata's Business Principles, which are applied in the Venture, uphold the elimination of all forms of forced or compulsory labour and prohibit any form of child labour. The minimum age for employment in the Xstrata Group is 18, regardless of local legislation. There is no significant risk in respect of incidents of forced or compulsory labour in the Venture's operations. The age of the youngest person employed by the Venture in 2012 was 18 years of age. Merafe complies with South African labour legislation. Merafe's youngest employee is 30 years of age.

There were no incidents of human rights violations involving indigenous people in the Venture's operations during 2012.

Disputes relating to land use

Communities have lodged land claims in respect of properties that are part of the Venture's current operations. The Venture is currently in discussions with the Regional Land Claims Commission regarding claims by communities over the farms on which the Lion ferrochrome plant is situated.

Ethics line

A free ethics phone line, which provides a confidential whistleblowing facility operated independently by Expolink, is available to the Venture's employees, contractors, suppliers, customers, business partners and community members for the confidential reporting of any breaches of its Business Principles, Code of Conduct. Merafe has a formal whistleblowing policy approved by the board in place.

Our social licence to operate

Both Merafe and the Venture seek to deliver longer-term community outcomes that align with our core business objectives through our corporate social investment (CSI) activities. We aim to:

- define and track socio-economic and business benefits
- partner with NGOs and other organisations to leverage the investments of both organisations
- create stable programmes that become self-sufficient in time.

Merafe's CSI policy and the Venture's sustainable development policy and standards describe our expectations for our businesses around community engagement and support. The Venture audits each site's performance against its sustainable development policy and standards as part of its sustainable development assurance programme.

The Venture is an integral part of the communities in which it operates. Both our organisations pay taxes. The Venture provides jobs and skills development opportunities, buys goods and services from local suppliers, supports local infrastructure initiatives and pays royalties to government.

Mining acts as a catalyst for social and economic development. The Venture's operations are often located in areas where there is little, if any industrial activity, government services are lacking and infrastructure needs are largely unmet. Merafe and the Venture have both the opportunity and the responsibility to partner with local communities, understand their needs and foster sustainable growth. We aim to create benefits for the communities in which we operate that will endure after the Venture's mining activities cease.

We need to demonstrate that our presence in a community is beneficial in order to gain access to resources and to obtain a social licence to operate from broader society.

We provide economic benefits that are far greater than merely providing jobs and paying taxes. The Venture's presence in an area stimulates and supports the development of small and medium-sized businesses, which in turn create sustainable jobs and contribute to infrastructure development.

A free ethics phone line, which provides a
& confidential
facility operated independently by Expolink, is available to the Venture's employees.

Social captial – Transparency and accountability

GOVERNANCE

Chairman's report



Introduction

I would like to start by expressing my condolences to the families of those who lost their lives during the labour unrest at Marikana in 2012. May there never be a repeat of this tragedy.

To address the imbalance in South Africa's social structure will require a huge commitment from and constructive engagement between business, government, communities and labour.

During 2012 our many challenges at home, including labour and community unrest, demands for major wage increases, excessive increases in electricity costs and uncertainty around possible mining taxes and nationalisation of the mining industry discouraged investors. Unfortunately, at the same time global demand for commodities was weak. Hopefully, 2013 will see an improvement in local and global conditions for our industry.

Safety

The Venture's safety performance in 2012 was a cause for celebration with zero fatalities in its operations during the year. The Venture continues to strive for a major improvement in all other safety measurements.

Strategy

Merafe takes a long-term view of its business which we believe allows us to align the interests of all our stakeholders, something that is not always possible in the short term.

While our management team has again successfully implemented most of our strategies, they have still to implement our diversification strategy. The board has confirmed its support of this strategy and we believe Merafe will be well-positioned, once our debt commitments to our chrome investments are met at the end of 2013, to pursue its diversification strategy.

Our approach to assurance and sustainability

In my letter to stakeholders on page 1 as well as the sustainability review and assurance on pages 116 to 117 of this report, we set out the detailed review and assurance processes which we undertook this year.

We further engaged the services of Deloittes in 2012 to assist us in aligning our remuneration with our strategy and ensuring it is in accordance with best practice.

JSE SRI Index

Our continued participation in the JSE SRI Index confirms the commitment of Merafe and the Xstrata-Merafe Chrome Venture to building a responsible business. We were most disappointed to be informed that while Merafe had qualified as a best performer on the Index the JSE had decided that, given the significance of the unrest in the mining industry, it was not possible to include any mining companies in the best performer category in 2012.

Management

Stuart Elliot left the company in May 2012 to pursue other interests. The board was pleased to appoint Zanele Matlala, whose experience as a long-term member of our board, as both a non-executive and executive director, gives her a considerable advantage, as our Chief Executive Officer.

The board

There were no changes to the board during 2012, except for the resignation of Stuart Elliot.

As 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. We have all been working together for a while and I believe that we work together very effectively, with all board members making a valuable contribution to our deliberations.

There is a clear separation between my responsibilities and those of the Chief Executive Officer and this separation is documented in our board charter. Our Chief Executive Officer is tasked with focusing on the operations of our business and ensuring it is run effectively and in accordance with the strategic decisions of the board.

My thanks to both our non-executive and executive directors, for the contribution you have made to the Merafe board's deliberations and decisions during 2012.

Engaging with our stakeholders

Our board is responsible for effective communication with our shareholders and we interact with shareholders at our annual general meetings and at presentations made by Merafe's executive management team when we release our annual and half-year results. We have delegated the responsibility for engaging with our shareholders and potential investors to the Chief Executive Officer, the Chief Financial Officer and the Investor Relations Manager. Details of these engagements are included in the stakeholder engagement table on the Merafe website at www.meraferesources.co.za

Our plans for 2013

Once again, our industry faces a challenging year as a result of global uncertainty and social and economic factors in South Africa. Our CEO commented on the threat posed by chrome ore exports, however, Merafe remains well-positioned for the year ahead in terms of a strong balance sheet and being the lowest-cost producer in South Africa. The longer-term future brings with it the advantage of the ramping up of the energy-efficient Lion II ferrochrome plant, hopefully in time to compete in a period of increased demand for ferrochrome. Certainly, whatever happens in terms of the demand for ferrochrome, this new plant will increase our competitiveness among South African ferrochrome producers.

Our chrome interests will not be requiring futher investments in the medium term which frees us up to diversify. Merafe's empowerment credentials make it an attractive potential empowerment partner. Our recognition as the most empowered company in the resources sector of the *Financial Mail*'s Top Empowerment Companies survey supports these credentials.

Conclusion

On behalf of the board my thanks to the entire Merafe team and our Venture partners for their contribution to our successes in 2012.



Chris Molefe
Chairman

Merafe takes a
& **long-term**
view of its business

GOVERNANCE (continued)

Directorate

Non-executive directors

Chairman

Chris Molefe (64)
(Independent)
BCom, Post-graduate Diploma in Property Development

Chris, who has chaired the Merafe board for the past nine years, has extensive experience in mining and resources, merchant banking and transformation strategy development. 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 (38)
(Independent)
BCompt

Belese joined the Merafe board in January 2009 as an independent non-executive director. Currently, she is Chief Executive Officer of Zeleb Holdings, a business consultancy specialising in financial management capacity building interventions, business process mapping and supply chain management integration. Her previous experience includes holding senior financial and internal audit management positions.

Meryl Mamathuba (40)
BProc, LLB

Meryl has been a member of the Merafe board since June 2007. She heads up the Corporate Funding Department at the Industrial Development Corporation of South Africa Limited (IDC).

Abiel Mngomezulu (59)
(*Independent*)
BSc (Hons)

Abiel 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.

Mpho Mosweu (37)
CA(SA), MBL

Mpho Mosweu, who joined our board in March 2011, is head of the Projects and Corporate Finance department at the IDC. She currently serves on the board of Cipla Medpro, a JSE-listed pharmaceutical company, as an independent non-executive director and chairs the company's audit and risk committee. She has extensive commercial and governance experience.

Karabo Nondumo (34)
(Independent)
BAcc, HDipAcc, CA(SA)

Karabo, who joined the Merafe board as an independent non-executive director on 1 December 2010, is currently Executive Head in the Enterprise Business Unit at Vodacom Group Limited. She gained her previous mining industry experience at Shanduka Resources.

Steve Phiri (57)
BJuris, LLB, LLM, HDip Co Law

Steve was Chief Executive Officer of Merafe for six years, before becoming the Chief Executive Officer of Royal Bafokeng Platinum in in 2011. He remains on the board as a non-executive director and is a non-executive director of RBRH.

Mfanyana Salanje (51)
(Independent)
BCom, BCompt (Hons), MBA, CA(SA), ACMA (UK), HDip Tax Law

Mfanyana, who is currently Chief Executive Officer of Mfanyana Financial Solutions, joined the Merafe board as an independent non-executive director in December 2010. He has extensive experience in both the public and private sectors and chairs the Merafe Audit and Risk Committee.

From left to right: Mfanyana Salanje, Belese Majova, Abiel Mngomezulu, Chris Molefe, Zed van der Walt, Karabo Nondumo



For more detailed information on our directors please see our website www.meraferesources.co.za

Zed van der Walt (68)
(*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 ferroalloys industry.

Executive directors

Chief Executive Officer

Zanele Matlala (49)
BCom, BCompt (Hons), CA(SA)

Zanele joined the Merafe board in 2005 as an independent non-executive director. She was appointed Merafe's Chief Financial Officer on 1 October 2010 and Chief Executive Officer in 1 June 2012. She is a non-executive director of Dipula Income Fund, Stefanutti Stocks Holdings Limited and Business Partners Limited.

Chief Financial Officer

Ditabe Chocho (43)
BCom, MSc Financial management, CA(SA)

Ditabe joined Merafe as Chief Financial Officer on 2 January 2013. Before joining Merafe he was Chief Financial Officer of DSTV Online, a division of MultiChoice, having previously held the position of CFO of Multichoice Africa Proprietary Limited. He sits on the board committees of Resolution Health Medical Scheme as chairman of their Audit committee and a member of their Remuneration committee.

Commercial Director

Bruce McBride (53)
BA, LLB, Dip Advanced Banking, MBA, PhD

Bruce 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 also a non-executive director of Mundane World Leaders Fund Limited.

Company Secretary

Amritha Mahendranath (45)
BCom

Amritha, who joined Merafe in 2003 as Financial Manager, was appointed Company Secretary in 2004. She has a corporate governance qualification from the University of Johannesburg and has completed the GIBS Board Development Programme.

Senior management

Finance and Investor Relations Manager

Kajal Bissessor (30)
BAcc, Post graduate diploma in accounting, CA(SA)

Kajal joined Merafe in 2009. She worked as a manager at KPMG Inc from 2004 to 2009. During her time with KPMG Inc she gained international experience as an Audit Senior with KPMG Ireland.

General Manager – Merafe Chrome

Dr Jurg Zaayman (44)
BEng, MEng, PhD (Metallurgical Engineering)

Jurg joined Merafe Resources as Operations Manager during 2001. 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.

From left to right: Steve Phiri, Mpho Mosweu, Meryl Mamathuba, Zanele Matlala, Bruce McBride, Ditabe Chocho.



GOVERNANCE (continued)

Company Secretary

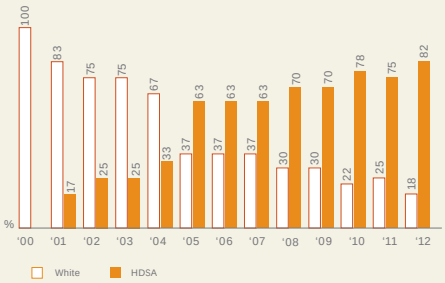
Our Company Secretary is responsible for administering the proceedings and affairs of the directorate, the company and, where appropriate, owners of securities in the company, in accordance with the relevant laws. The Company Secretary is available to assist all our directors with advice on their responsibilities, their professional development and any other relevant assistance they may require.

The board has assessed the competence, qualifications and experience of the Company Secretary, as required in terms of section 3.84 of the JSE Listings Requirements and has agreed that she is sufficiently qualified, competent and experienced to hold the position of Company Secretary. The board made their assessment during a closed session board meeting. The Company Secretary fulfils no executive management function and is not a director. Therefore, the board is satisfied that the Company Secretary maintained an arm's length relationship with the executive team, the board and individual directors in terms of section 3.84 of the JSE Listings Requirements.

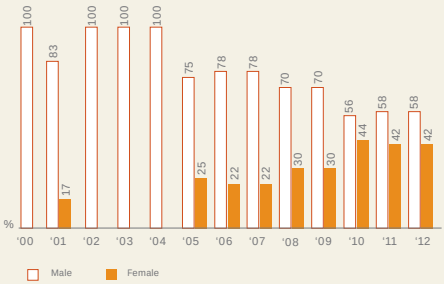
Independent advice

Our non-executive directors can, if necessary, obtain independent professional advice at the company's expense.

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



Board statistics as at 31 December 2012

45% of our board members are women, all of whom are black

82% of our board members are black

82% of our board members are non-executive directors who do not receive share options or incentives

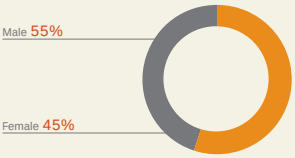
67% of our non-executive board members are independent

For information on our directors, dealings in securities policy and board induction and training, retirement and appointment of directors, please see our website www.meraferesources.co.za

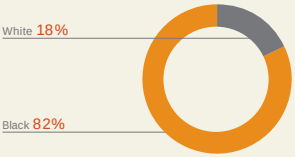
Racial and gender statistics as at 31 December 2012

Board

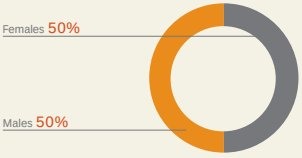
Gender composition



Racial composition



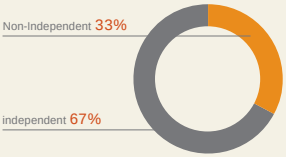
Executive



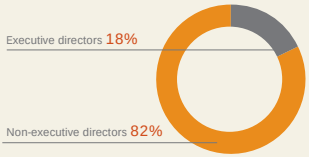


Board independence

Non-executive directors



Split between non-executive and executive directors



& Our chairman is an independent non-executive director and there is a **clear separation of the responsibilities** of the Chairman and the Chief Executive Officer. The Chairman is elected annually by the board and is assessed by the board annually

GOVERNANCE (continued)

Details of the members of our board and committees, a summary of their roles and responsibilities and attendance at meetings by members, as at 31 December 2012, are set out below:

Governance structure	Roles and responsibilities	Members/Invitees	Attendance
Board and board committees			
Merafe board	The Chairman is responsible for ensuring that: • the board provides effective leadership • the board maintains ethical standards. • Merafe develops and implements strategies aimed at achieving its sustainability • the board and its committees are effective The board is responsible for: • governance of the Merafe Group on behalf of its shareholders • its own governance • strategy and strategic decision-making • assessment of performance • engaging with stakeholders • Merafe's approach to its social responsibility, safety, health, the environment, ethics and risk	*Chris Molefe (Chairman)* *Zanele Matlala (CEO from 1 June 2012 and CFO)* *Stuart Elliot (CEO until 31 May 2012)* *Bruce McBride* *Meryl Mamathuba* *Belese Majova* *Abiel Mngomezulu* *Mpho Mosweu* *Karabo Nondumo* *Steve Phiri* *Mfanyana Salanje* *Zed van der Walt*	4/5* 4/5* 2/2* 5/5* 3/5* 5/5* 5/5* 3/5* 4/5* 1/5* 5/5* 5/5*
Audit and Risk Committee	All members of this committee+ are independent non-executive directors (as required by the Companies Act). The 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 • oversees Merafe's integrated reporting as well as the assurance function, which includes applying a combined assurance model to ensure a coordinated approach to all assurance activities including sustainable development and ethics • 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 • reviews the risks listed in Merafe's register, as well as those of the Venture, 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 • 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 their performance and sustainability and that this forms an integral part of their risk management practices • satisfies itself as to the expertise and experience of the Chief Financial Officer and the financial functions of Merafe and the Venture	*Mfanyana Salanje (Chairman)* *Belese Majova (resigned as member on 4 May 2012)* *Abiel Mngomezulu* *Karabo Nondumo* *Zed van der Walt* *Zanele Matlala+* *Stuart Elliot+ – (resigned 31 May 2012)* *Bruce McBride+* *Chris Molefe+* *Jurg Zaayman+* *Kajal Bissessor+*	5/5 2/2 4/5 4/5 5/5 5/5 3/3 4/5 5/5 4/5 5/5

** There were four paid board meetings, one paid board strategy session and one unpaid board workshop in 2012*

For details of the committee's roles and responsibilities see the Audit and Risk Committee report on page 128

Governance structure	Roles and responsibilities	Members/Invitees	Attendance
Remuneration and Nomination Committee	The committee: • makes recommendations to the board for its consideration and final approval regarding remuneration strategy and policy • assists the board in ensuring that directors and executives are remunerated fairly and responsibly • ensures the disclosure of directors and other executive remuneration is accurate, complete and transparent • assists the board with ensuring that remuneration policies are adopted that promote the achievement of strategic business objectives and encourage individual performance and monitoring remuneration policies • makes recommendations on non-executive directors' fees • develops policy around the appointment of directors, investigates potential board members for necessary skills and competence and makes appropriate recommendations to the board	*Chris Molefe (Chairman)* *Belese Majova* *Karabo Nondumo* *Steve Phiri* *Zanele Matlala*[++] *Bruce McBride*[++] *Stuart Elliot*[+] *– (resigned 31 May 2012)*	6/6 6/6 5/6 5/6 2/3 2/3 1/2
Social, Ethics and Transformation Committee	The committee assists the board with the oversight of social, ethical and transformation matters relating to the company. It monitors the company's: • activities with regard to any relevant legislation, charters or codes in respect of social and economic development • performance in terms of good corporate citizenship including the company's promotion of equality, prevention of unfair discrimination, reduction of corruption, transformation policies and strategies and social responsibility policies and strategies • contribution to the development of communities in which the operations in which we are invested operate • performance in terms of the environment, health and public safety, including the impact of the company's activities and its products and services • application of its code of ethics and its approach to corruption (as recommended in principle 1.3 of the King Report on Governance for South Africa, 2009)	*Belese Majova (Chairman from 4 May 2012)* *Meryl Mamathuba (resigned as Chairman 4 May 2012)* *Chris Molefe* *Stuart Elliot – resigned 31 May 2012* *Zanele Matlala* *Bruce McBride* *Jurg Zaayman*	3/3 2/3 3/3 1/1 3/3 3/3 3/3

[+] *Invitee*
[++] *Invited to committee from 1June 2012*

Management structure	Roles and responsibilities	Members
Executive Committee	Our Executive Committee, which meets at least once a month, recommends policies and strategies; is responsible for the implementation of strategy and carrying out the board's mandates and directives. It deals with all executive management business and is responsible for all material matters that are not the responsibility of the board. It also assists the board with the execution of Merafe's compliance and disclosure obligations	*Chief Executive Officer* *Chief Financial Officer* *Commercial Director*
Xstrata-Merafe Chrome Venture's Joint board	The Joint board meets quarterly with the aim of ensuring proper governance of the activities of the Venture. Members of Merafe's management team also attend and participate in the Venture's monthly Exco, Treasury, Sustainable Development, Audit and Social and Ethics committees	*Three senior representatives from Xstrata and three senior representatives from Merafe. Currently, the Chief Executive Officer of Xstrata chairs the board.*



For committee terms of reference see our website www.meraferesources.co.za

GOVERNANCE (continued)

Our approach to governance

We believe that good corporate governance is key to the integrity of our organisation, 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. Underpinning our disciplined approach to governance is our determination to ensure we maintain a balance between good governance and the spirit of entrepreneurship that has built our business.

Our application of King III in 2012

Merafe applies the principles of King III. A table setting out our application of the principles can be found on our website in the Transparency and accountability section. In 2011, we reported that we had only partially applied some principles and our application of certain principles was under review. We have made the following progress:

Internal audit

Oversight of internal audit in Merafe by the Audit and Risk Committee	We reported last year that the Merafe Audit and Risk Committee did not oversee internal audit in Merafe. Since then PricewaterhouseCoopers (PWC) has been appointed as Merafe's internal auditors. The scope of their appointment included the preparation of an internal audit plan and an internal audit charter; reviews of IT governance, legal and compliance and all matters relating to tax. Also included in PWC's scope as internal auditors is attendance at all Audit and Risk Committee meetings, as well as meeting with our external auditors

Governing stakeholder relationships

Management proactively deals with stakeholder relationships	As we said last year, while our management team continually strives to improve the effectiveness of its stakeholder engagement, this remains an area where we believe there will always be room for improvement
There is an appropriate balance between its various stakeholder groupings	While we believe that we are reasonably well engaged with all our stakeholder groupings, we still seek clarity regarding what is meant by "appropriate balance". In our opinion this issue will also remain one that needs to be monitored for potential areas where there is room for improvement
Equitable treatment of stakeholders	Again, we seek clarity regarding the meaning of "equitable treatment", however, we do believe that we are doing our best to treat stakeholders fairly. This will also remain an area which we will monitor for potential areas where there is room for improvement
Transparent and effective communication to stakeholders	While we believe that our stakeholder engagement policies and procedures ensure transparent and effective communication, we have not, as yet, been able to adequately test this assertion and it therefore remains an issue we will monitor for potential areas where we can make improvements
Disputes are resolved effectively and timeously	We indicated last year that within our agreement with Xstrata regarding the Venture, which is our major agreement, there are various dispute resolution mechanisms, including an arbitration clause. As we have not had to refer any dispute for arbitration since the Venture was formed in 2004 we cannot comment on how effective the process is, or whether disputes are resolved timeously

The governance of information technology

The board is responsible for information technology	PWC is performing a gap analysis in Merafe in their role as internal auditors and their recommendations in this connection will be implemented. For information on the governance of information technology in the Venture please see the Risk management report on pages 102 to 103

SOCIAL, ETHICS AND TRANSFORMATION COMMITTEE REPORT

Merafe's Social, Ethics and Transformation Committee was established by the board of directors on 21 February 2012, in accordance with the requirements of the Companies Act of 2008 (the Act), section 72(4) and Regulation 43(2).

Previously, Merafe had a Transformation and Corporate Social Investment Committee. The responsibilities of the Transformation Committee have been incorporated with this committee's responsibilities and the committee has been renamed the Social, Ethics and Transformation Committee. In addition to the three meetings the committee held during the year it also held two workshops on 6 June and 19 October for the purpose of ensuring that the committee understood its duties and obligations in accordance with the new legislation. During the workshops the committee also developed a new charter and formal terms of reference to replace the previous committee's charter and terms of reference. Professor Deon Rossouw of the Ethics Institute of South Africa assisted the committee during these workshops. The committee's terms of reference will be reviewed annually by the board.

We would refer you to page 97 for a description of the roles and responsibilities of the committee and its terms of reference can be found on our website www.meraferesources.co.za

The committee has an independent role. Its members include three non-executive directors, two of which are independent, two executive directors and the general manager: Merafe Chrome. Independent non-executive director Belese Majova chairs the committee.

The committee assists the board in monitoring the group's activities in terms of legislation, regulation and codes of best practice relating to:

- ethics
- stakeholder engagement, including employees, customers, communities and the environment
- strategic empowerment and compliance with transformation codes and is responsible for:
  - monitoring the company's activities relating to social and economic development, good corporate citizenship, the environment and health and public safety
  - ensuring appropriate short- and long-term targets are set by management
  - monitoring progress on strategic empowerment and performance against targets
  - monitoring changes in the application and interpretation of empowerment charters and codes
  - monitoring functions required in terms of the Companies Act and its regulations.

To meet its responsibilities the committee receives reports on the progress that both Merafe and the Venture have made in terms of the issues covered by its terms of reference. A senior representative of the Venture attends specific committee meetings where the focus is on the Venture.

The members of the committee believe that Merafe is substantively addressing the issues it is required to monitor in terms of the Companies Act. However, the committee was only established in the year under review and we recognise that the functioning and scope of the committee is a work in progress.

We would refer you to our Governance report, and the Human and Social capital reports on pages 90, 64 and 82 for more detailed information.



Belese Majova
Chairman

HUMAN RIGHTS AND ETHICS



Human rights

Merafe subscribes to the fundamental tenets of human rights as enshrined in our country's Constitution and Bill of Rights. Our 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 UN Universal Declaration of Human Rights, the 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. The Venture's operations reported on their adherence to this legislation, which is monitored through its internal audit and risk management programme. The age of the youngest employee in 2012 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.

To ensure the highest levels of human rights practice within the Venture's supply chain it expects all its major suppliers and contractors to comply with its Business Principles and significant business partners undergo screening on their human rights practices.

The Venture's Sustainable Development Standards require its 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 2012, nor were there any incidents of the rights of indigenous people being violated.

Ethics

The Merafe Code of Ethics governs the way we do business and the way our directors and employees engage with our stakeholders. The Code, which is binding on our directors and employees and 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 which expects strict adherence to these Principles by both employees and contractors. The Venture uses an online training system to test employees' and contractors' understanding and application of the Business Principles in a variety of simulated scenarios. Employees are required to achieve a minimum score of 70% in the training.

Xstrata's global policy on bribery, fraud and corruption, implemented in 2010, 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 to 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 developed a new Code of Conduct, which is issued to all employees and contractors. Training is provided in the application of the Code.

The Venture's 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.

Fifty percent of the Venture's operations underwent human rights reviews and impact assessments in 2012, 86% of the Venture's significant suppliers and contractors underwent human rights screening and 97% of the Venture's security personnel received human rights training.

Venture employees made six formal complaints relating to human rights. These were addressed and resolved through formal grievance mechanisms.

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.

RISK MANAGEMENT



Risk management

Risk is an intrinsic aspect of business and is inseparable from opportunity. The risks set out in the table on pages 104 to 108 represent some of the principal uncertainties and trends which may have an impact on the Venture and/or Merafe's ability to execute their strategies 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.

The Merafe board is responsible for the governance of risk and setting levels of risk tolerance and has tasked the Audit and Risk Committee with assisting the board in carrying out its risk responsibilities. While our board has also delegated the process of risk management in Merafe to management, the Audit and Risk Committee, acting on behalf of the board, ensures that there are ongoing assessment and monitoring of our risks. The Executive Committee is accountable to the board for designing, implementing and monitoring Merafe's risk management processes and senior managers and heads of department are responsible for effectively managing risks within their respective areas of responsibility.

Merafe's risk management policy and framework describes our risk management philosophy, approach and process and guides the implementation of our risk management process in a uniform manner across the company.

Many risks inherent in a mining business will always exist. The challenge is to manage them effectively. The Venture's risk management system allows it to pursue business opportunities and grow shareholder value as well as developing and protecting its people, assets,

Merafe is
& committed
to the principles of the
Mining Charter

environment and reputation. Its processes are defined within a risk framework that is well understood across all its operations. Because managing risk is a continuous challenge, self-assessment is ongoing within the Venture to identify, evaluate and manage significant risks. The results are regularly updated on the Xstrata group risk registers.

The Venture undertakes a comprehensive annual risk review, the results of which are implemented into the annual business plans which are presented to the Xstrata board for approval. Progress against these plans, significant changes in the Venture's risk profile and actions taken to control and mitigate risks are reported regularly to its Audit Committee, the Xstrata group Audit Committee, the Executive Committee and its board.

Information technology governance

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), a set of best practices for IT management; Information Technology Infrastructure Library (ITIL), 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 RACI model (Responsible, Accountable, Consulted, Informed – a tool that can be used to identify roles and responsibilities). Ernst & Young, the Venture's external auditors and its internal auditors audit its IT governance processes annually.

King III has highlighted IT governance and the responsibilities of the board in this regard. IT is firmly on the Merafe board's agenda and as previously mentioned our internal auditors are carrying out a gap analysis of IT governance in Merafe. Should the result reveal weaknesses in our approach we will remedy these.

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, that 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.

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 regularly reported to the IS Planning Council and the Venture's CFO. In addition, they are regularly evaluated by means of internal and external audits. For Merafe IT governance see page 98.

RISK MANAGEMENT (continued)

Principal risks and uncertainties affecting Merafe and its investment in the Xstrata-Merafe Chrome Venture

Risk and impact	Mitigation
Socio-political climate in South Africa	
Labour unrest could negatively impact the Venture's productivity and profitability	Relationships with and recognition of trade unions; relationships with employees and establishing employee share option plan (ESOP)
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	Stakeholder engagement plays a very important role in establishing relationships with our employees and 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 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
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 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	We are 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

For further information on the socio-political climate see the Social capital section of this report on pages 82 to 108 and the Operating context section on pages 6 to 7

Risk and impact	Mitigation
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. Our partner in the Venture, Xstrata, takes a considered approach to debt management
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 its employees and local communities in order to earn and maintain our social licence to operate. Merafe maintains 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 regularly engage with SARS, DTI, DMR and other regulators
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

Social captial – Transparency and accountability

RISK MANAGEMENT (continued)

Risk and impact	Mitigation
Empowerment credentials	
Loss of empowerment credentials if Royal Bafokeng Resources Holdings Limited (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
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) 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 are 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. 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

More information on stakeholder engagement is available throughout this report

Risk and impact	Mitigation
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 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 policymakers to advocate a rational approach to carbon taxes 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 is undertaking feasibility studies on a number of potential energy efficiency projects. *The Venture's emissions are reported to the Carbon Disclosure Project (CDP) 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 In South Africa HIV and AIDS and associated diseases remain the major healthcare challenges facing our industry 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 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 All operations are regularly independently audited through the Sustainable Development Assurance Programme and they manage the risks that could affect the Venture's operations

For more information on climate change and the environment see the Natural capital section pages 40 to 49

Social captial – Transparency and accountability

RISK MANAGEMENT (continued)

Risk and impact	Mitigation
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 mines 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. The Venture continually investigates 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 on the Venture's Mineral Resources and Reserves see pages 50 to 61

REMUNERATION REPORT

Our remuneration philosophy

Merafe's primary remuneration intent is to employ and reward high calibre and 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 that they should be remunerated accordingly for their contribution, and the value that they deliver. Additionally, non-executive fees should be determined in the context of good governance and be market-related.

Our remuneration strategy

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

- guaranteed annual salaries and benefits that are commensurate with the market for key talent
- annual cash incentives that reward short-term operational performance
- long-term (share-based) incentives that promote retention and drive performance in alignment with shareholder goals.

The Remuneration and Nomination Committee

Responsibility for the company's remuneration policies rests with the Merafe Resources Limited board of directors, which has in turn appointed the Remuneration and Nomination Committee.

The committee comprises at least three members, all of whom are non-executive directors. The Chairman of the committee and the majority of its members are independent. The committee is governed by formal terms of reference approved by the board.

The primary role of the committee is to ensure that the company's directors and senior executives are paid fairly for their individual contributions to the company's performance, and that remuneration policies are appropriate to attract, retain and motivate quality directors and senior management, committed to achieving the overall goals of the company.

This role essentially consists of:

- assisting the board in setting and monitoring remuneration policies which promote the achievement of strategic business objectives and encourage individual performance
- ensuring that remuneration policies are adopted and reviewed and aligned with the strategy of the organisation and linked to individual performance
- reviewing the outcome of the implementation of the remuneration policy.

Additionally the committee plays an active role in succession planning activities, notably for the Chief Executive Officer and executive management.

The committee is responsible for making recommendations to the board on remuneration policy for the directors and, to the extent it deems necessary, makes external comparisons between remuneration packages currently available to the company's own executive directors and those available to directors of other companies of a similar size in the comparable industry sector.

The committee meets formally at least two times a year, and a quorum is set at three members being present. The Chairman of the board and the CEO attend meetings to discuss the performance of other executive directors and to make proposals as necessary.

The Chairman of the committee may meet with the CEO and the Company Secretary to discuss important issues and agree on the agenda. The CEO, other senior employees, professional advisors and board members may attend the meeting by invitation only, but they may not vote. The Company Secretary is the secretary of the committee

The board performs an evaluation of the effectiveness of the committee on an annual basis

Remuneration policy

The key principles of Merafe's remuneration policy are:

- Policy is governed by the Remuneration and Nomination Committee who regularly review all policies to ensure that they are relevant and support company strategy
- Guaranteed remuneration is targeted at the median to upper quartile of the relevant market data

For more information on our performance against strategy see the Chief Executive Officer's review on pages 16 to 23

REMUNERATION REPORT (continued)

- All employees are members of medical and retirement funds and have group life and disability cover
- Variable pay is an important component of remuneration and both annual and long-term performance-based schemes are in place in support of the company's business strategy
- Incentive scheme performance measures are assessed by the Remuneration and Nomination Committee. These measures are weighted between corporate, individual, and financial and non-financial criteria
- Performance measures are applicable to the time period to which the scheme relates
- Annual cash incentive bonuses are based on performance for the financial year, while the long-term incentive scheme measures are based on long-term sustainability and shareholder value
- 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
- Industry average increase surveys are taken into consideration in setting increases
- Both short-term and long-term incentive schemes are benchmarked against practices at similar companies
- The over-riding principle governing payments for non-executive directors is that they are made in the context of good governance.

Executive remuneration

The Remuneration and Nomination Committee (assisted by independent advisors) has reviewed Merafe's remuneration policy and has recently approved a new policy which is in line with best practice and which is more aligned with the company's strategic objectives.

The major change in policy has been to move away from bonuses based solely on a 1.5% share of EBITDA towards a more balanced approach, which addresses the long-term sustainability of performance rather than merely rewarding short-term financial performance.

Executive pay mix

Executive pay mix is defined as the balance targeted between the major components of executive remuneration, namely:

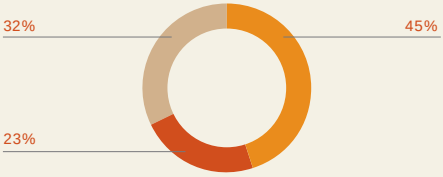
- Guaranteed pay – based on total guaranteed cost to company (tctc), being the combination of basic salary, allowances and benefits
- Performance variable pay, being made up of:
  - on target reward from short-term incentives in the form of annual cash incentives
  - the expected value from long-term (share-based) incentives.

Note: Expected value is defined as the present value of the future reward outcome of an offer, given the targeted future performance of the company and of its share price. It should not be confused with the term "fair value" which is used when establishing the accounting cost for reflection in a company's financial statements. Neither should it be confused with the term "face value" which is used to define the current value of the underlying share at the time of an offer.

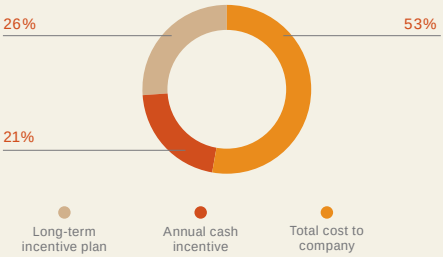
The balance between guaranteed pay (total cost to company), targeted annual cash incentives and the expected value from long-term (share-based) incentives for executives is shown in the pie charts below and on the next page.

Relative apportionment between the major elements of reward

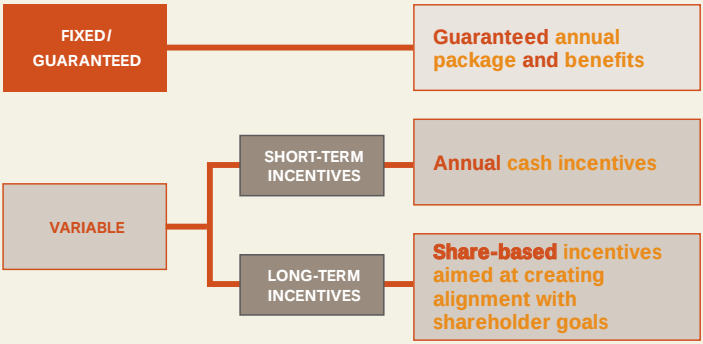
Chief Executive Officer



Executive director



Executive and employee remuneration principles/structure



Note that, through acquisitions and business combinations over time, and due to the impact of individual and business performance, actual pay mix will inevitably deviate from the targeted pay mix structure.

Merafe's executive remuneration (see the diagram above setting out the major components) aims to align employee incentives with the interests of our shareholders. Details of executive and management remuneration in 2012 can be found on page 179 to 180 of this report.

Guaranteed remuneration

Merafe aims to establish and maintain an integrated pay line with pay levels that ensure that it is able to remain competitive while managing costs. Salaries and benefits are reviewed annually and are targeted broadly at the median position in the relevant market. The company conducts annual market pricing exercises against the top management reward surveys. The benchmark used is the median total guaranteed cost of employment for similar positions in similarly sized, listed companies. When deciding on salary reviews the Remuneration and Nomination Committee also takes into account business performance, salary practices prevailing for other employees in the company and, when setting individual salaries, the individual's performance and experience in the role.

Short-term incentives

Merafe's annual incentives are aimed at rewarding a combination of both business and individual performance. Business performance (a weighted combination of financial performance and key strategic metrics) determines the size of a bonus pool for the company and individual contributions to this performance (measured in terms of individual value driver scorecards) determine the bonus pool's distribution to individuals.

Business performance is assessed in terms of a select scorecard of performance indicators, covering both financial and non-financial elements. Actually achieved performance against targeted EBITDA is given a weighting as is the achievement of additional ferrochrome business and/or targeted diversification (as submitted in a body of evidence and approved by the Remuneration and Nomination Committee). These metrics are assessed against a five-point scale.

The percentage split between targeted EBITDA and the achievement of additional ferrochrome business and/or targeted diversification will be discussed and agreed by the Remuneration and Nomination Committee annually, but is currently set at 50%/50%.

REMUNERATION REPORT (continued)

Long-term (share-based) incentives

The intention behind the offer of long-term (share-based) incentives is both to reward employees, including executive directors, for long-term performance and shareholder alignment, and to serve as a retention mechanism for employees whose services are regarded by the company to be crucial to its future growth and sustainability.

Share incentive schemes

On 14 December 1999, Merafe's shareholders approved a share option scheme for employees (including executive directors) of the company and its subsidiaries to encourage employees to identify more closely with the activities of the company and to promote its continued growth by giving them an opportunity of acquiring shares in the company.

All options vest one third per year on the third, fourth and fifth anniversaries and are settled by physical delivery of shares against receipt of payment of the option price. These options lapse if not exercised after 10 years by employees and options are forfeited when an employee resigns from the group not having exercised his/her options.

On 13 April 2010 a new share incentive scheme was approved by shareholders providing for offers of both share options and full value (free) shares. The offers of full value (free) shares were split 50%/50% between performance-oriented awards being subject to performance vesting conditions and retention-oriented grants with no performance conditions other than continued employment.

All offers vest in equal tranches on the third, fourth and fifth anniversary and are settled by physical delivery of shares. Alternatively, the company has the right to settle the value accruing to an individual via the payment of an equivalent value cash bonus.

The conditions applicable to the performance-oriented awards are set out on page 158 of the annual financial statements.

The board of directors of the company, on the recommendation of the Remuneration and Nomination Committee, made various offers of share options and full value (free) shares during 2010, 2011 and 2012.

In 2012 the Remuneration and Nomination Committee made a decision to vary the balance between performance-oriented awards and retention-oriented grants and to simplify the performance criteria that determine vesting of the performance-oriented awards. From 2013 awards will be governed by a single performance metric that compares Merafe's total shareholder return over a three-year period with that of a selection of JSE-listed small cap mining and resources companies.

The fundamental principles governing Merafe's revised long-term incentives are as follows:

- Share options are only offered at the discretion of the board
- Full value share offers are made annually to all employees, the targeted reward of which is dictated by the company's reward strategy – pay mix
- Performance-oriented share awards and retention-oriented grants are offered to senior managers and above, with the proportion of awards, in relation to grants, increasing with seniority
- Performance-oriented award values are calculated as a percentage of an individual's total cost to company guaranteed package
- Retention-oriented grant values in any one year are, at the discretion of the board, calculated either as a percentage of the current total cost to company guaranteed package, or as a percentage matching of the past year's annual incentive payout.

Share options and share awards and/or grants offered to directors under the share incentive scheme during 2012 are set out on pages 159 to 161 of this report.

Unvested share options and share awards and/or grants to directors are set out in the tables on pages 157 to 161 of this report.

Non-executive directors' fees

In accordance with Merafe's policy of ensuring that non-executive directors' fees are market related, the company consults regularly with independent experts regarding the appropriate fee structures and levels, the last review having been undertaken in 2012.

Merafe aims to
& **reward**
high calibre and high performing employees

The fees for non-executive directors are provided in the context of good governance, and in line with the strategy of attracting and retaining high calibre individuals as custodians of the company's business.

Fees are primarily derived from a methodology which takes into account expertise, the contribution made by the director, and attendance. Independent benchmark advice is sought and the present policy is that non-executive directors' fees are positioned midway between the median and upper quartile of those fees found in listed companies of a similar size. The fees vary according to the different roles, such as Chairman, that non-executive directors undertake in the various committees.

To avoid any conflict of interest, non-executive directors do not and will not participate in any share-based incentive scheme or any other incentive scheme that the company may implement.

Non-executive directors' fees are tabled annually for approval by the shareholders of the company. The non-executive directors' fees paid during 2012 are set out below, as are the proposed non-executive fees for 2013. Details of non-executive directors' remuneration in 2012 can be found on page 179 of this report.

Fees are based on four meetings a year with a split of a 60% retainer and a 40% attendance fee. In addition, attendance fees only are payable for special board or committee meetings. Should the Chairmen of the board and committees be required to undertake ad hoc duties, additional remuneration is payable for the time spent, in accordance with Merafe's remuneration policy and as determined by the board.

Non-executive directors' fees for 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	21 968
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

Proposed non-executive directors' fees for 2013 (a fee increase of 7% on non-executive directors' fees for 2013 is proposed with the exception of the Chaiman: Audit and Risk which has been increased to R191 500 after a benchmark exercise was performed to evaluate whether the current fees are market related)

	Fees per annum R	Retainer 60% R	Attendance fee 40% R	Fee per meeting R
Board Chairman	436 100	261 660	174 440	43 610
Board members	235 063	141 038	94 025	23 506
Audit and Risk Committee Chairman	191 500	114 900	76 600	19 150
Audit and Risk Committee members	112 229	67 337	44 892	11 223
Remuneration/Nomination Committee Chairman	91 700	55 020	36 680	9 170
Remuneration/Nomination Committee members	55 973	33 584	22 389	5 597
Social, Ethics and Transformation Committee Chairman	91 700	55 020	36 680	9 170
Social, Ethics and Transformation Committee members	55 973	33 584	22 389	5 597

Based on four meetings a year with a split of 60% retainer and 40% attendance fee