

# performance against objectives

## 1. STAKEHOLDER PERSPECTIVE

Key Performance Area/Objective: Develop Efficient Mineral Processing Technologies and Sustainable Value Added Products & Services				
Strategic Objectives	Measures	Target	Actual	Comments
a) <b>Overcoming technical obstacles to exploiting mineral resources</b>	<ul style="list-style-type: none"> <li>• <b>Develop Analytical and Mineralogical Methods:</b> Adapt existing methods, or develop new methods, for the accurate and precise analysis of complex geochemical and metallurgical samples.</li> <li>• <b>Develop and evaluate new processing technologies:</b> New technologies are required for the processing of ore bodies or resources that are not currently being exploited due to their low grade, impurity levels, complexity, or lack of expertise. <ul style="list-style-type: none"> <li>- Low grade uranium ores</li> <li>- Reject iron ore (low grade and/or high impurity)</li> <li>- High ash coal</li> <li>- Low grade copper ores</li> <li>- Complex copper / nickel / cobalt ores</li> <li>- Smelting of high chromite PGM concentrates</li> <li>- Conversion of titanium slag to metal</li> </ul> </li> </ul> <p><b>Develop and Construct Plant Equipment:</b> Incorporate Mintek's technology and know-how into the development and sale of commercial plant equipment used in the minerals industry.</p>	<ul style="list-style-type: none"> <li>- 10 methods</li> <li>- 2 papers*</li> <li>- 8 reports / 1T</li> <li>- 1 report</li> <li>- 1 report</li> <li>- 11 reports / 1 model</li> <li>- 8 reports</li> <li>- 2 reports</li> <li>- 1 report / 1 plant</li> <li>- 8 plant units</li> </ul>	<ul style="list-style-type: none"> <li>12 Analytical methods</li> <li>3 Reports</li> <li>- 18 reports on "New Processing Technologies"</li> <li>- 5 reports</li> <li>- 4 papers</li> <li>- 21 reports</li> <li>- 17 reports</li> <li>- 3 papers and 2 reports</li> <li>- 1 report</li> <li>- 8 plant units</li> </ul>	<p>The 'Alternate Platform' project delivered patented software towards a new analytical platform for PGM's. A contract with a major international SEM manufacturer to commercialise this IP is in final stages of construction.</p> <p>Viability of resin durability in the RIP process was demonstrated at pilot plant scale. Extra progress was achieved through the leverage of commercial funds from an interested client.</p> <p>Promising results have been obtained for the removal of copper from cobalt electrolytes by the use of resin ion-exchange fibres.</p> <p>The EU-sponsored BioMinE project came to an end during Q3. Mintek's contributions included feasibility studies based on closed circuit piloting at Mintek, and our leading role has been recognised by consortium partners and the European commission alike.</p> <p>A second phase of the JOGMEC project was started, involving high temperature heap bioleaching of pure chalcopyrite ore. Results could also be applicable to local low grade chalcopyrite like Haib, Namibia.</p> <p>The application of bacterially produced polymers as mineral surfactants has been demonstrated in the laboratory. Though not comparable to commercially available reagents yet, there is room for further optimisation.</p> <p>ConRoast alloy was successfully treated in a commercial Pierce Smith converter. The Bay 2 furnace was upgraded to 2 000 tons/mth in October 2008 and achieved 68% of this new capacity in February 09.</p> <p>a 10kg/h TiCl4 pilot plant was designed, constructed and 80% installed .</p> <p>The following plant units were installed:</p> <ul style="list-style-type: none"> <li>• Minfurn furnace installed (USA)</li> <li>• Commercial electrowinning plant installed at the Kuranach gold plant (Russia)</li> <li>• Batrec – 10Ka furnace (Switzerland)</li> <li>• Minfurn for water treatment Rietvlei (SA)</li> <li>• TiCL 4 plant (Mintek)</li> <li>• KBR- Solis filtration Plant (Wax Filtration) USA</li> <li>• MDS (Magnetic density separator) (SA / India)</li> <li>• Heap-leach column pilot plant (Mintek)</li> </ul>
b) <b>Enhance the competitiveness of metallurgical processes</b>	<ul style="list-style-type: none"> <li>• <b>Analytical and Mineralogical Services:</b> Provide fast, accurate analyses for a wide variety of geochemical and metallurgical samples.</li> <li>• <b>Development of Advanced Process Control Technologies:</b> Develop, demonstrate and implement advanced process control and performance monitoring for flotation and milling.</li> <li>• <b>Feasibility Studies:</b> Conduct laboratory and pilot scale test work to obtain the metallurgical parameters necessary for the preparation of pre- or full-feasibility studies for the ore samples supplied by clients to Mintek. <ul style="list-style-type: none"> <li>- Industrial minerals (chromite, iron / manganese ore, others)</li> <li>- Diamonds</li> <li>- Uranium</li> <li>- Base metals</li> <li>- Gold</li> <li>- PGMs</li> </ul> </li> <li>• <b>Reduce Processing costs:</b> Develop innovative ways to lower the costs of processing a variety of feed materials to final product.</li> </ul>	<ul style="list-style-type: none"> <li>- 125,000 samples</li> <li>- 6 prototypes</li> <li>- 10 reports</li> <li>- 10 reports</li> <li>- 6 reports</li> <li>- 8 reports</li> <li>- 17 reports/2 papers</li> <li>- 7 reports/3 audits</li> <li>- 10 reports</li> <li>- 7 reports</li> </ul>	<ul style="list-style-type: none"> <li>96,685 samples</li> <li>87% average manday usage for year – exceeded target of 70% average.</li> <li>- 8 prototypes</li> <li>- 13 reports</li> <li>27 Reports</li> <li>7 Reports</li> <li>9 Reports</li> <li>44 Reports</li> <li>6 Reports</li> <li>28 Reports</li> <li>5 Reports</li> </ul>	<p>Unexpected slowdown occurred in the metallurgical samples submitted by industry.</p> <p>Due to good progress on performance monitoring, 2 more prototypes than planned were completed.</p> <p>Many commercial projects were undertaken for uranium, base metal and gold producing clients to support the investigation of the optimisation of processes or pre-feasibility testing of new process flow sheets.</p> <p>A chloride-based base metal processing flow sheet was developed and evaluated for treating the Braemore Conroast alloy to produce a PGM concentrate that is of the required quality.</p> <p>The increase in reports over what was planned is a reflection of the large number of feasibility studies that were conducted during the "boom"; but this is not sustainable.</p> <p>14 tons calcined nickel laterite were smelted. 7 tons of high grade calcined nickel oxide was smelted. 30 tons of partially calcined nickel sulphide concentrate was smelted to demonstrate reduced SO<sub>2</sub> emissions.</p> <p>145 tons of titaniferous magnetite was smelted to produce pig iron and a 60% TiO<sub>2</sub> slag.</p> <p>The trend that Mintek experienced from our clients during the year under review was for technology and services to boost supply, and resources were diverted from cost reduction to feasibility studies (see section above). As a result, the number of reports produced was below target. We anticipated more work in this area during 2009/10.</p>



Key Performance Area/Objective: Develop Efficient Mineral Processing Technologies and Sustainable Value Added Products & Services (continued...)				
Strategic Objectives	Measures	Target	Actual	Comments
c) Develop new applications or markets for minerals and metals	<ul style="list-style-type: none"> <li>• <b>Certified Reference Materials:</b> Produce new certified reference materials to allow local and international laboratories to check their in-house geochemical and metallurgical analyses.</li> <li>• <b>New industrial Uses for Precious Metals:</b> Develop commercial applications for the precious metals, based upon their unique chemical and physical properties, in the areas of: <ul style="list-style-type: none"> <li>- Biomedicine (Cancer, HIV, malaria)</li> <li>- Catalysis (chemical processing, fuel cells, autocats)</li> <li>- Nanoscience and nanotechnology</li> </ul> </li> <li>• <b>Develop and Construct Plant Equipment:</b> Incorporate Mintek's technology and know-how into the development and sale of commercial plant equipment for producing precious metal powders.</li> </ul>	<ul style="list-style-type: none"> <li>- 10 new reference standards</li> <li>- 50 compounds</li> <li>- 5 Systems</li> <li>- 2 sensors</li> <li>- 2 plant units</li> </ul>	<ul style="list-style-type: none"> <li>13 new reference materials</li> <li>107 compounds</li> <li>6 systems</li> <li>2 sensors</li> <li>1 Test unit</li> </ul>	<p>Reference materials produced included those for uranium, PGMs and base metal ores.</p> <p>The reference materials facility was commissioned and has been running since December 2008.</p> <p>Major accomplishments included:</p> <p>Good results obtained from NIH (USA) screening of biomedical compounds for cancer, and subsequent submission of PCT patent.</p> <p>Nano R&amp;D has progressed very well with the appointment of 8 senior scientists and good industrial collaboration has been built.</p> <p>AuTEK catalysis has sold more than 100kg of Aurolite™ catalysts to potential end-users. The new semi-commercial catalyst plant has been completed.</p> <p>A vision for the approach to biological nanoparticle production has been developed; namely, optimise the proven fungal systems, investigate and optimise the use of bio-templates, then devise larger scale production and shape-classification techniques.</p> <p>The target of two plant units has not been achieved due to budget cuts made by the client as a result of drop in the PGM prices. The client remains interested in the technology, but was able to purchase a single test unit only in the year under review.</p>
d) Sustainable Development	<p><b>Water in Minerals Processing:</b> Development of water efficient flowsheet to optimise water consumption and enable processing of ore bodies in water stricken areas by incorporation of novel technologies into flow sheet design, and addressing of socio-economic implications of water in mining.</p> <ul style="list-style-type: none"> <li>• <b>Energy in Mineral Processing:</b> Development of an energy efficient flow sheet and control technologies that minimises energy consumption, opex, capex, and carbon emissions by incorporation of novel technologies into flow sheet design.</li> <li>• <b>Emissions and Waste Management in Mineral Processing:</b> Attain accreditation as a Lead Auditor for measurement of cyanide emissions from gold plants, establish basic levels of arsenic measurement, and implement advanced control technologies to reduce emissions.</li> <li>• <b>Plant and Technology:</b> Construct a furnace for the recycling of waste dry-cell batteries, and undertake the initial concept studies for the reactivation of carbon used in potable water treatment, and for the production of solar-grade silicon.</li> </ul>	<ul style="list-style-type: none"> <li>- 7 reports</li> <li>- 11 reports</li> <li>- 1 prototypes</li> <li>- 11 reports</li> <li>- 2 prototypes</li> <li>- 1 furnace</li> <li>- 2 reports</li> </ul>	<ul style="list-style-type: none"> <li>8 Reports</li> <li>- 10 reports</li> <li>- 1 prototype</li> <li>- 7 reports</li> <li>- 1 prototype</li> <li>1 furnace</li> <li>2 reports</li> </ul>	<p>SAVMIN pilot plant test work was conducted to verify operability and a promising initial indication was obtained for a novel improvement in a critical area of the process.</p> <p>Collaboration between Dr Dong of MPD and China on water usage in mineral processing was established.</p> <p>Completed a water pricing model for the Anglo Technical Division. In addition completed a review of water optimisation of water stressed mining regions, utilising the Olifants River Water Management Area (ORWMA) as a case linked to the platinum sector.</p> <p>A design study shows that a self-baking electrode is feasible for a DC furnace.</p> <p>A paper study shows that a DC furnace may be able to use the 2 billion tons of coal wastes in SA to produce hydrogen cost competitively.</p> <p>Three papers presented at international conferences on Energy usage during comminution.</p> <p>South African Patent No. 2008/02704 - A Method of Obtaining Data for Use in the Design of a Grinding Mill Circuit has been registered.</p> <p>Mintek has continued with cyanide auditing procedures, with agreements to do two SASOL re-certification audits.</p> <p>Complications with matrix separation cell design resulted in delay in completing second prototype.</p> <p>A furnace has been supplied to Batrek for the recycling of dry cell batteries, the plant is now in operation.</p> <p>A report (Water Treatment and Food Processing Industries) that describes achievements to date and the future R&amp;D work required in order to firmly establish the Minfurn within these two industries was compiled.</p> <p>A report (Commercial-scale atomisation unit) that outlines the principle of atomisation, the design and the R&amp;D that went into adapting the unit for ultra-high temperature melting and atomisation of metals was compiled.</p>
e) Support the development of Junior Research Companies (JRC)	<ul style="list-style-type: none"> <li>• <b>Technical Assistance:</b> Conduct amenability and/or feasibility studies for possible JRC projects, and assist in developing a flow sheet for the processing of their ore bodies.</li> </ul>	<ul style="list-style-type: none"> <li>- 5 reports</li> </ul>	<ul style="list-style-type: none"> <li>- 18 Reports</li> </ul>	<p>3 tons of chalcocite copper concentrate was smelted and 80 kg of the matte product was converted to demonstrate the feasibility of a proposed plant in the DRC.</p>

**Key Performance Area/Objective: Second Economy Interventions**

Strategic Objectives	Measures	Target	Actual	Comments
<b>a) SMME business incubation</b>	<ul style="list-style-type: none"> <li>- <b>Development and support of SMMEs:</b> New business started, existing business supported, establishment of Ceramic Incubator.</li> <li>- <b>SMME Research and Interventions:</b> Develop strategies and partnerships at local and international level.</li> <li>- <b>Business Mentoring:</b> Production support for existing rural jewellery businesses, structured enterprise development business coaching, establish new rural groups in Gauteng, Eastern Cape, Free State, Mpumalanga and Limpopo.</li> <li>• <b>Business Commercialisation:</b> Rollout of national distribution plan, complete sample development, developing sub-brands, local and international promotions.</li> </ul>	<ul style="list-style-type: none"> <li>- 6 new start-ups</li> <li>- 6 existing</li> <li>- 1 incubator</li> <li>- 5 reports</li> <li>- 7 agreements</li> <li>- 23 sites</li> <li>- 5 new establishments</li> <li>- Presence in nine provinces</li> <li>- 1 contract signed</li> <li>- 2 international and 10 local fairs</li> </ul>	<ul style="list-style-type: none"> <li>- 11 new start-ups</li> <li>- 6 existing supported</li> <li>- 0 incubator</li> <li>- 6 reports</li> <li>- 2 international contracts</li> <li>- 23 sites</li> <li>- 4 new</li> <li>- 3 Provinces</li> <li>- 0 contract</li> <li>- 10 local and 1 international</li> </ul>	<p>Envisaged incubator could not be set up as funding was directed at establishing more dispersed SMME's.</p> <p>Work has been done in establishing partnerships but only one of the outstanding agreements is certain (Chile on IGoli). All SMME research work done within Mintek.</p> <p>Partnerships with North West DOE and MQA assisted in enhancing SMME research in relevant areas.</p> <p>Twelve of the groups have been showing a greater level of independence.</p> <p>Showcasing at various exhibitions has seemingly resulted in a heightened awareness of the Kgabane brand. We have been receiving an unprecedented amount of commercial enquiries.</p>
<b>b) Development of technologies relevant to SMMEs</b>	<ul style="list-style-type: none"> <li>• <b>Diamond Recovery:</b> Construct and commission a diamond recovery plant for the processing of diamonds in a cost effective manner for SMMEs.</li> <li>• <b>Alluvial Diamond Finger Printing Competency:</b> Develop methods and establish infrastructure to identify the source of diamonds through trace element analysis, diamond morphological characterisation and setting up a diamond database.</li> <li>• <b>Construction Minerals:</b> Establish mineralogical methods suited to SMME operations in glass, cement, and other minerals.</li> <li>• <b>Minerals for Agricultural Development:</b> Develop new technologies and transfer technologies to communities.</li> <li>• <b>Indigenous Knowledge Systems (IKS), Mining and Beneficiation:</b> Develop strategies, establish partnerships and incorporate indigenous knowledge systems into jewellery products.</li> </ul>	<ul style="list-style-type: none"> <li>- 1 plant</li> <li>- 1 report</li> <li>- A fully equipped laboratory</li> <li>- Database established</li> <li>2 reports</li> <li>- 1 report</li> <li>- 2 agreements</li> <li>- 4 reports</li> <li>- 10 learners on casting technology</li> <li>- 4 agreements</li> </ul>	<ul style="list-style-type: none"> <li>3 skills transfer workshops completed in lieu of constructing a plant</li> <li>Fully functional secure clean lab completed.</li> <li>- 2 reports</li> <li>- 3 reports</li> <li>- 0 agreement</li> <li>- 2 reports</li> <li>- 1 agreement</li> </ul>	<p>All equipment towards a diamond forensic provenance laboratory has been purchased and commissioned. Gas and laser tests have started on the laser ablation ICPMS. The first alluvial gem diamond sample has been received. SADC region political stakeholders were engaged at AMP in February 2009.</p> <p>Underperformance by consultant has resulted in significant delay to method development on LA-ICP-MS and output of first dataset.</p> <p>A database on construction minerals within the SMME sector had been developed, and tests have been completed on the application of norite in the manufacturing of refractory material.</p> <p>1 report completed on Tiger's Eye mineralogy.</p> <p>Work on phospho-gypsum, Biomin blending and phosphate fractionation completed.</p> <p>An agreement with Kenya is in the process of being reviewed.</p> <p>Reports completed for the IKS Research project and the DST ceramics and jewellery project.</p> <p>Agreement signed with DST on ceramics and jewellery. One casting pilot project completed.</p> <p>7 Learners from the Witbank jewellery project took part in the casting technology.</p>



Key Performance Area/Objective: Support of Regional Interventions				
Strategic Objectives	Measures	Target	Actual	Comments
a) Mineral Strategies	<ul style="list-style-type: none"> <li>• <b>Mineral Scans:</b> Industrial Minerals for LED support, Spatial Development Programme, Beneficiation Strategy for Commodities Ranked 11 to 20.</li> <li>• <b>Mineral Infrastructure and Logistic Studies:</b> Steel Infrastructure Study, Energy Infrastructure, Steel and Carbon Mill Feasibility, Jewellery Manufacturing Precincts.</li> </ul>	<p>3 reports</p> <p>4 reports</p>	<p>6 reports</p> <p>10 reports</p>	<ul style="list-style-type: none"> <li>• Industrial Minerals for LED support changed to Alluvial Diamond Support for LED Development.</li> <li>• Eskom contracted work on forward planning.</li> <li>• Transnet contracted work on bulk commodity logistics is ongoing.</li> <li>• Completed report on the state of mining in Gauteng; comments on the Royalty Bill.</li> <li>• Supported initiatives with other African mining ministries.</li> <li>• Funding could not be raised for envisaged projects.</li> </ul> <p>Target projects were not funded, however alternative projects were completed.</p>
b) Policy Support	<ul style="list-style-type: none"> <li>• <b>Economic Research and Analysis as per DME Request</b></li> <li>• <b>Strengthening Economic Diplomacy:</b> Africa and other International Priority Countries on minerals related projects.</li> <li>• <b>Socio-Economic Management:</b> Assist companies in REACH and GHS compliance, Women and Mining.</li> </ul>	<p>2 reports</p> <p>- multiple reports - 1 major report</p> <p>- 2 reports - 10 companies assisted</p>	<p>2 reports</p> <p>3 reports</p> <p>1 report</p>	<p>Provided information to the DME and National Treasury on the inputs into the Royalty Bill Regulations. Supported the SADPMR information gathering workshops; Commented and provided guidance on the DME Beneficiation strategy.</p> <p>Organised, hosted and presented a report to UNECA on the UNECA Private Public Partnership workshop.</p> <p>Completed several smaller phases of work for a private sector client that was consolidated into a single final report.</p>

# Includes refereed journals and papers delivered in conferences  
 \* Development Technologies

§ The reports contain the agreed outputs as contained in the commercial contracts signed with clients

## 2. FINANCIAL PERSPECTIVE

Key Performance Area/Objective: Good Governance				
Strategic Objectives	Measures	Target	Actual	Comments
a) Compliance	<ul style="list-style-type: none"> <li>• <b>IFRS Compliance:</b> Timely and accurate processing of all valid transactions, addressing all audit matters raised in external and internal audits.</li> </ul>	Unqualified Audit report	Unqualified Audit report	
b) Financial Management	<ul style="list-style-type: none"> <li>• <b>BEE procurement as a % of total discretionary spend</b></li> <li>• <b>Actual debtors write-off (% of total revenue)</b></li> <li>• <b>Total revenue</b></li> <li>• <b>Total Science Vote Revenue</b> <ul style="list-style-type: none"> <li>- Operational revenue</li> <li>- Capital allocation</li> <li>- Medium Term Expenditure Framework</li> </ul> </li> <li>• <b>Net result</b></li> <li>• <b>Capital investment</b></li> </ul>	<p>22%</p> <p>&lt;1% of revenue</p> <p>391,055</p> <p>103,898</p> <p>10,869</p> <p>4,386</p> <p>9,132</p> <p>23,822</p>	<p>17%</p> <p>0.12%</p> <p>389,413</p> <p>104,928</p> <p>9,839</p> <p>4,386</p> <p>38,767</p> <p>24,296</p>	<p>The accredited agents were appointed by the DTI in February 2009 and therefore BEE certificates will only be obtained by Mintek suppliers in the next few months. This will enable Mintek to accurately account for BEE procurement as the current information on BEE status of suppliers is outdated.</p> <p>Only R505k were written off in the current financial year relating to debt that could not be recovered.</p> <p>Mintek earned less revenue than expected. This is in line with current market conditions.</p> <p>The full Sci-vote funding has been utilised to complete the present outputs.</p> <p>The profit of R38,8 million for the year represents an achievement of 324,5% compared to target. This is largely attributable to the settlement of part of the post retirement medical aid liability and a focus on minimising expenditure.</p> <p>Capex spend is within the anticipated range.</p>
c) Efficiencies	<ul style="list-style-type: none"> <li>• <b>Ratio of Science Vote/Total Revenue</b></li> <li>• <b>Total of overhead costs to total costs</b></li> <li>• <b>Salaries to Total Expenditure</b></li> </ul>	<p>25%</p> <p>30%</p> <p>60%</p>	<p>29.27%</p> <p>30,55%</p> <p>56,02%</p>	<p>The ratio of Science-vote compared to total revenue is higher than target due to MTEF monies received in the financial year. The additional funds have assisted Mintek to do valuable research work in the uranium environment.</p> <p>Overhead costs are representing 30,55% of total costs. This is a result of increased electricity charges as well as an increase in the rates and taxes.</p>



### 3. LEARNING AND GROWTH PERSPECTIVE

Key Performance Area/Objective: Organisational Development				
Strategic Objectives	Measures	Target	Actual	Comments
a) Human Capital Development	<ul style="list-style-type: none"> <li><b>Workplace Skills Report</b></li> <li><b>Science, Technology, Engineering and Maths Promotion</b></li> <li><b>Under-graduate Bursary Programme</b></li> <li><b>Post-graduate Bursary Programme (MSc &amp; PhD)</b></li> <li><b>Bursar absorption rate into Mintek</b> <ul style="list-style-type: none"> <li>- Under-graduates</li> <li>- MSc graduates</li> <li>- PhD graduates</li> </ul> </li> <li><b>DST Research Professional Programme</b> <ul style="list-style-type: none"> <li>- MSc graduates</li> <li>- PhD graduates</li> </ul> </li> <li><b>Management and Executive Development Programme</b></li> <li><b>SMME Training and Development</b> Interventions: People trained in bead making, brick making, ceramics, introduction to small-scale mining, and partnerships developed on skills programme.</li> <li><b>Jewellery Training and Development</b> Interventions: Establish new partnerships, train new beneficiaries in Eastern Cape, Limpopo, Free State, Gauteng and Mpumalanga at NQF level 2, train learners in the Northern Cape in gemstone cutting and polishing.</li> <li><b>African Mining Partnership:</b> Providing jewellery training at NQF level 1 to Madagascar. Providing CAD training to Ghana, as per the AMP request. Training South Africans in jewellery techniques in Senegal.</li> </ul>	<ul style="list-style-type: none"> <li>1 report</li> <li>- 4 science exhibitions</li> <li>- televised Minquiz™ science competition</li> <li>60 bursars</li> <li>40 bursars</li> <li>40%</li> <li>70%</li> <li>80%</li> <li>15</li> <li>5</li> <li>30 employees</li> <li>- 640 people trained</li> <li>- 3 agreements signed</li> <li>- 5 agreements signed</li> <li>- 50 new learners</li> <li>- 20 new learners on gemstones</li> <li>- 350 existing learners</li> <li>- 10 South African learners in Senegal</li> <li>- 10 trainees to be trained in Ghana</li> <li>- 10 trainees to be trained in Madagascar</li> </ul>	<ul style="list-style-type: none"> <li>1 report</li> <li>- 22 science events</li> <li>- agreement reached with e.tv to broadcast highlights of 2009 Minquiz™ on Frenzy</li> <li>62 bursars</li> <li>32 bursars</li> <li>10/75 (13%)</li> <li>5/27 (18%)</li> <li>2/15 (13%)</li> <li>4</li> <li>1</li> <li>22 graduants</li> <li>- 609 people trained</li> <li>- 5 contracts signed</li> <li>- 5 Agreements</li> <li>- 10 learners</li> <li>- 0 Learners</li> <li><b>(As a substitute 12 learners were trained in stone setting)</b></li> <li>- 200 learners</li> <li>0</li> <li>0</li> <li>0</li> </ul>	<ul style="list-style-type: none"> <li>Only 1 report annually in accordance with the Department of Labour requirements.</li> <li>- "Events" includes exhibitions, conferences, inbound students and learner tours and university open days.</li> <li>This is dependant on available graduates who enrol for further studies.</li> <li>All bursars were absorbed in this financial year.</li> <li>Figures have declined because some of the fellows in the programme who were meant to have commenced their research in 2008/9 will only be starting in the 2009/10 year.</li> <li>Some employees withdrew and others have outstanding modules.</li> <li>Although contracts signed for training exceeded expectations, the numbers required to train were less than expected.</li> <li>The numbers of learners who come forward for training were less than expected.</li> <li>Project cancelled after the second quarter due to lack of funding expected through the DME.</li> </ul>

Key Performance Area/Objective: Organisational Development (continued...)				
Strategic Objectives	Measures	Target	Actual	Comments
b) Transformation	• <b>Employment Equity Report</b>	1 report	1 report	Submitted to the Department of Labour.
	• <b>Employment Equity Plan</b>	Board-approved targets		Loss of employees in middle management due to high staff turnover. Retention strategy to be finalised for implementation.
	- Executive and Senior Management	76% DG	70% DG	
	- Professional	71% DG	62% DG	
	- Technicians and Associated Professionals	87% DG	82% DG	
	- Clerks	95% DG	98% DG	
	- Crafts and Trades	79% DG	88% DG	
	- Plant and Machine Operators	95% DG	99% DG	
- Elementary Occupations	91% DG	98% DG		
c) Talent Leadership	• <b>Remuneration Strategy</b>	New strategy document	Draft Strategy	In the process of finalisation.
	• <b>Performance Management System</b>	New system	System implemented	
	• <b>Retention and Succession</b>	Staff turnover <28%	Draft Strategy	To be finalised in 1st quarter of new financial year for implementation.
	• <b>Employee Wellness Programme</b>	- 9% HIV prevalence - communication projects	Only a KAB Survey was conducted and its recommendations are being implemented.	Intense wellness awareness campaigns done with a focus on various wellness issues in line with the country's wellness efforts.
d) Maintain world class R&D infrastructure	• <b>Promote Scientific and Innovation Excellence</b>			
	- Proportion of Researchers to Total Staff	33%	35%	
	- No. of Staff enrolled for MSc and PhD	49	50	
	- % of staff with MSc	4.5	4.9	
	- % of staff with PhD	6.8	3.4	
	- No. of Papers and Articles Published	60	50	A further 33 papers are in line for publication.
	- No. of International collaborations	18	19	
- No. of Patents registered by Mintek	2	1	Process of registering patents takes longer than was anticipated.	