



# SUSTAINABILITY DATA TABLES

## 2015

# SAFETY

Operation	SHEQ certification	LTIFR					Awards/Achievements in F2015
		F2015	F2014	F2013	F2012	F2011	
<b>Ferrous Division</b>							
Beeshoek Mine	ISO 9001, ISO 14001 OHSAS 18001	<b>0.07</b>	0.00	0.07	0.00	0.17	Recognised for an outstanding achievement in Safety at the annual "Mine Safe" Conference.
Black Rock Mine	ISO 9001, ISO 14001, OHSAS 18001 certification in progress	<b>0.35</b>	0.44	0.33	0.19	0.40	Received the award for the "best improved mine" from the Department of Mineral Resources in the Northern Cape.
Cato Ridge Works	ISO 9001, ISO 14001 OHSAS 18001	<b>0.38</b>	0.12	0.10	0.52	0.23	Completed 1.9 million fatality free shifts.
Dwarsrivier Mine	ISO 9001, ISO 14001, OHSAS 18001	<b>0.18</b>	0.45	0.87	0.76	1.26	Completed 2.8 million fatality free shifts.
Khumani Mine	Integrated certification of ISO 9001, ISO 14001 and OHSAS 18001. Also SANS 16001 certified	<b>0.29</b>	0.10	0.22	0.11	0.27	
Machadodorp Works	ISO 9001, ISO 14001, OHSAS 18001	<b>0.00</b>	0.32	0.00	0.16	0.68	Completed 18 consecutive months LTI free.
<b>Platinum Division</b>							
Modikwa Mine	ISO 9001, ISO 14001 and OHSAS 18001 certification put on hold due to financial constraints. Re-certification in terms of ISO 14001 successfully completed on 1 October 2015	<b>0.73</b>	0.87	1.16	0.81	0.37	Achieved 1.5 million fatality free shifts.
Nkomati Mine	ISO 9001, ISO 14001, OHSAS 18001	<b>0.23</b>	0.03	0.11	0.25	0.26	Completed 4.6 million fatality free shifts.
Two Rivers Mine	Aligning SHEQ systems with ISO 14001 and OHSAS 18001. Training Centre is ISO 9001 certified	<b>0.24</b>	0.28	0.33	0.29	0.62	Completed 2.6 million fatality free shifts. The mine was identified as an operation demonstrating leading practice in terms of the Chamber of Mines MOSH Hearing Protection Device Program.
<b>Copper Division</b>							
Lubambe Mine	Aligning SHEQ systems with ISO 14001 and OHSAS 18001. Training Centre is ISO 9001 certified	<b>0.21</b>	0.19	0.16	0.22	–	Fatality free since the start of the project in October 2010.

# SAFETY continued

## SECTION 54 AND SECTION 55 NOTICES

	Section 54 Notices					Shifts/days lost				
	F2015	F2014	F2013	F2012	F2011	F2015	F2014	F2013	F2012	F2011
<b>Ferrous Division</b>										
Beeshoek Mine	–	–	1	1	–	–	–	6	–	–
Khumani Mine	3	2	2	3	–	11	–	–	–	–
Black Rock Mine	–	–	2	3	3	–	–	2	–	5
Dwarsrivier Mine	3	3	2	3	4	12	18	7	7	10
<b>Platinum Division</b>										
Nkomati Mine	2	–	–	–	–	5	–	–	–	–
Two Rivers Mine	1	–	–	3	2	6	–	–	17	5
Modikwa Mine	20	15	11	6	5	62	57	15	–	10
<b>Total</b>	<b>29</b>	20	18	19	14	<b>96</b>	75	30	24	30

	Section 55 Notices					Shifts/days lost				
	F2015	F2014	F2013	F2012	F2011	F2015	F2014	F2013	F2012	F2011
<b>Ferrous Division</b>										
Beeshoek Mine	–	2	–	1	–	–	–	–	13	–
Khumani Mine	–	1	2	3	–	–	1	–	–	–
Black Rock Mine	–	1	3	6	2	–	–	–	–	–
Dwarsrivier Mine	2	6	5	2	1	–	–	–	–	–
<b>Platinum Division</b>										
Nkomati Mine	1	1	–	1	1	–	–	–	–	–
Two Rivers Mine	–	–	–	3	1	–	–	–	–	–
Modikwa Mine	–	8	–	–	1	–	–	–	–	–
<b>Total</b>	<b>3</b>	19	10	16	6	–	1	0	13	0

# OCCUPATIONAL HEALTH AND WELLNESS

## MEDICAL CONDITION

	Newly diagnosed	Existing	Total of employees with condition	Percentage of total workforce affected
Hypertension	29	1 725	1 754	7.47%
Diabetes Type 1	1	58	59	0.3%
Diabetes Type 2	3	408	411	1.9%
Epilepsy	0	15	15	0.06%
Upper Respiratory Tract Infection (URTI)(Including repeats)	varies seasonally	13 001	13 001	55.3%

## NOISE INDUCED HEARING LOSS

	Number of employees	Percentage of total workforce
Shift in PLH (percentage loss of hearing) <b>F2015</b>		
PHL >2.5% to <5% (>5% but <10%)	393	1.67%
PHL >5% to <7.5%		
PHL >7.5% to <10% (>10%)	260	1.10%

## AUDIOMETRIC EXAMINATIONS

	F2015	F2014	F2013	F2012	F2011
Number of tests performed	<b>42 627</b>	42 871	44 163	40 710	38 945
Number of tests referred	<b>144</b>	197	81	113	160
Percentage of total (referred/performed)	<b>0.33</b>	0.46	0.18	0.28	0.41
Number of tests submitted for compensation	<b>30</b>	54	56	45	33
Percentage of total (comp. submit/performed)	<b>0.07</b>	0.13	0.13	0.11	0.08
Number of cases compensated	<b>12</b>	20	12		
Percentage of total (compensated/referred)	<b>8.33</b>	10.15	14.81		

## NOISE INDUCED HEARING LOSS PER OPERATION

Operation	F2015		F2014		F2013		F2012	
	Referred	Submitted for compensation	Referred	Submitted for compensation	Referred	Submitted for compensation	Referred	Submitted for compensation
Beeshoek Mine	51	13	28	0	1	0	5	1
Khumani Mine	17	1	6	1	12	3	9	11
Black Rock Mine	5	2	53	11	10	6	3	2
Dwarsrivier Mine	4	0	4	1	2	1	7	0
Cato Ridge Works	2	0	16	0	5	0	5	0
Machadodorp Works	0	0	1	0	15	4	2	1
Nkomati Mine	5	2	13	3	15	11	4	5
Two Rivers Mine	2	0	3	1	6	1	16	4
Modikwa Mine	58	12	73	37	15	30	62	21
<b>Total</b>	<b>144</b>	<b>30</b>	197	54	81	56	113	45

# ENVIRONMENT

## ELECTRICITY (MWH) – 100% BASIS

	F2015	F2014	F2013*	F2012*	F2011	F2010
Beeshoek Mine	38 396	38 970	40 559	33 166	33 756	33 529
Khumani Mine	186 112	175 213	165 930	158 562	101 078	87 720
Black Rock Mine	105 739	102 881	99 016	114 955	105 183	87 613
Dwarsrivier Mine	56 218	50 872	51 653	49 185	44 660	29 759
Cato Ridge Works	608 273	639 712	608 353	743 054	588 410	533 183
Machadodorp Works	169 480	207 973	233 680	1 014 567	1 002 462	753 961
Nkomati Mine	353 249	348 612	338 938	309 533	268 380	179 113
Two Rivers Platinum Mine	209 616	202 558	188 859	181 854	172 797	169 580
Modikwa Mine	261 567	259 140	244 637	247 608	232 048	241 327
Lubambe Mine	113 801	118 962	73 510	13 190		
Corporate Office	Not material	Not material	364	360	1 008	386
<b>ARM total</b>	<b>2 102 451</b>	2 144 894	2 045 499	2 866 033	2 549 783	2 116 171
Ferrous Division	1 164 218	1 215 622	1 199 191	2 113 488	1 875 549	1 525 765
Platinum Division	640 663	810 310	772 435	738 995	673 225	590 020
Copper Division	113 801	118 962	73 510	13 190		
Corporate Office	Not material	Not material	364	360	1 008	386
<b>ARM total</b>	<b>2 102 451</b>	2 144 894	2 045 499	2 866 033	2 549 783	2 116 171

\* Restated for refinements in carbon footprint data.

\*\* To be determined during preparation of the Carbon Disclosure Project (CDP) report during early 2015. Not considered material.

## DIESEL CONSUMPTION ('000 LITRES) – 100% BASIS

	F2015	F2014	F2013	F2012	F2011
Beeshoek Mine	17 562	12 619	14 976	7 549	2 048
Khumani Mine	32 474	34 050	40 389	37 838	27 535
Black Rock Mine	5 271	4 529	4 289	4 355	4 119
Dwarsrivier Mine	1 763	1 490	1 629	1 402	1 429
Cato Ridge Works	530	515	559	492	524
Machadodorp Works	787	804	844	1 273	1 501
Nkomati Mine	26 311	24 382	31 219	33 449	27 875
Two Rivers Platinum Mine	3 876	4 739	3 536	3 851	3 637
Modikwa Mine	4 688	5 136	6 442	6 152	4 891
Lubambe Mine	6 550	3 749	4 905		
<b>ARM total</b>	<b>99 812</b>	92 013	108 788	96 361	73 559
Ferrous Division	58 387	54 007	62 686	52 909	37 156
Platinum Division	34 876	34 257	41 197	43 452	36 403
Copper Division	6 550	3 749	4 905		
<b>ARM total</b>	<b>99 812</b>	92 013	108 788	96 361	73 559

# ENVIRONMENT continued

## WATER CONSUMPTION (m<sup>3</sup>) – 100% BASIS

	F2015	F2014	F2013	F2012	F2011
Beeshoek Mine	5 237 869	6 608 293	7 964 901	6 190 014	4 611 620
Khumani Mine	3 647 534	3 440 654	4 041 671	3 772 149	2 611 648
Black Rock Mine	887 478	916 126	1 015 952	862 842	857 030
Dwarsrivier Mine	639 268	290 175	133 912	129 990	362 522
Cato Ridge Works	322 400	394 247	376 054	395 083	374 163
Machadodorp Works	105 799	52 261	192 954	142 928	130 620
Nkomati Mine	3 577 751	3 396 863	2 924 876	2 643 966	2 733 000
Two Rivers Platinum Mine	1 407 380	1 323 625	1 102 135	1 648 073	1 137 564
Modikwa Mine	1 342 261	1 887 795	1 941 339	2 206 903	2 273 191
Lubambe Mine	1 176 366	1 098 425	857 580		
<b>ARM total</b>	<b>18 334 106</b>	19 408 464	20 551 374	17 991 948	15 091 358
Ferrous Division	10 830 348	11 701 756	13 725 444	11 493 006	8 947 603
Platinum Division	6 327 392	6 608 283	5 968 350	6 498 942	6 143 755
Copper Division	1 176 366	1 098 425	857 580		
<b>ARM total</b>	<b>18 334 106</b>	19 408 464	20 551 374	17 991 948	15 091 358

# BIODIVERSITY MANAGEMENT

Operation	Is the operation in close proximity to area of high biodiversity or protected area?	Biodiversity study completed	Details of red data or protected species	Status of biodiversity action plan (BAP)	Strategies for addressing impact
<b>ARM Platinum Division</b>					
<b>Nkomati Mine</b>					
<p>39 Hectares were disturbed during F2015. A total of 416 hectares have been disturbed and not yet rehabilitated.</p> <p>No communities have been rehabilitated.</p>	<p>No. The mine is located among commercial forestry operations.</p>	<p>Yes.</p>	<p>No red data species.</p>	<p>In terms of the BAP, priority actions completed and in progress, include:</p> <ul style="list-style-type: none"> <li>• Installation of four 1.2 metre diameter concrete pipes to ensure free flow of water and to minimise the build-up of silt at the haul road crossing is complete;</li> <li>• A continuous program for removal of alien invasive plants is in place; and</li> <li>• Rehabilitation of a designated waste rock area and tailings storage facilities is in progress.</li> </ul>	<p>Integration into local municipal policy and plans as well as relevant Spatial Development Plans; integration into existing Group policy and management systems, including the Biodiversity and Land Management Plan, Closure Plan and Environmental Management Plan; identification and liaison with stakeholders and neighbouring properties especially with respect to weed/invaser and erosion control action plans; post closure land use; and available budget and manpower for implementation, management and maintenance. In terms of water management, a geo-hydrological model and update of the surface water management plan and water balance were completed and calibrated during the year.</p>

# Biodiversity management continued

Operation	Is the operation in close proximity to area of high biodiversity or protected area?	Biodiversity study completed	Details of red data or protected species	Status of biodiversity action plan (BAP)	Strategies for addressing impact
<b>ARM Platinum Division</b> <small>continued</small>					
<b>Two Rivers Platinum Mine</b>					
<p>In total, 190 hectares were disturbed. No communities were resettled in F2015.</p>	<p>Yes, high biodiversity. The mine is located within the Sekhukhune Land Centre for Plant Endemism.</p>	<p>Yes.</p>	<p><b>Priority red data plants:</b> Gladiolus sp. nov, Resnova sp.aff.megaphylla, Zantedeschia pentlandi while protected fauna are cicada (Pycna Sylvia), Dromica honesta.</p> <p><b>Other conservations:</b> Important invertebrates confirmed during field work are scorpion species such as <i>Hadogenes ploytrichobothrius</i> (flat rock scorpion), <i>Opisthophthalmus gladifrons</i>, <i>Parabuthus transvaalicus</i>, <i>Uroplectes triangulifer</i> and <i>Pseudolychas</i>. A newly described protected mite species called <i>Zambedaniasp.</i> (hetrostigmae) associated with a certain spider species (inhabiting under round shaped stones that are fairly deeply buried up to 1/3 or 1/2 of their depth) called <i>Harpactrella flavipilosa</i> Ant species confirmed and potentially undescribed, collected during the invertebrate survey, include undescribed <i>Tetramonium</i>, undescribed <i>Camponotus</i>, undescribed <i>Anilmyrma</i>, possible undescribed <i>Meranoplus</i>, possibly undescribed <i>Aenictus</i>. The property is dominated by thick leafed plants, most of which occur in the Sekhukhune land centre for Plant Endemism (area of ecological importance within which Two Rivers is located.</p>	<p>The process to update the BAP, as the initial BAP emphasised on the north part of the mining right area, started in August 2014 and ended in June 2015. The final BAP is being compiled.</p> <p>This process did not have an effect on the identified biodiversity units and mitigation plans of other areas.</p>	<p>The scope for updating the BAP, included associated impact assessment and Action Plans – to be used as environmental management tool which will also be annexed to future applications for environmental authorisations.</p>



# Biodiversity management continued

Operation	Is the operation in close proximity to area of high biodiversity or protected area?	Biodiversity study completed	Details of red data or protected species	Status of biodiversity action plan (BAP)	Strategies for addressing impact
<b>ARM Platinum Division</b> <small>continued</small>					
<b>Two Rivers Platinum Mine</b> <small>continued</small>					
			<p><b>Woodland dominant within the property are:</b></p> <ul style="list-style-type: none"> <li>• Lydenburgtia-Euclea Open Woodland – within which the protected Lydenburgia assinoides plant specimens are dominant;</li> <li>• <i>Sclerrocarya</i> – Bolusanthus Open Woodland within which <i>Sclerrocarya birrea</i> subsp. <i>caffra</i> (Marula tree) is dominant;</li> <li>• <i>Combretum erythphyllum</i> Riverine Woodland within which Combretum specimens are dominant; and</li> <li>• <i>Phragmites</i> – Imperata Marsh wherein Phragmites species are dominant.</li> </ul>		
<b>Modikwa Mine</b>					
<p>1 hectare was disturbed during F2015. A total of 556 hectares have been disturbed and not yet rehabilitated.</p>	<p>No</p>	<p>Yes, the initial biodiversity study was completed in 2008. A study to update this, will be commissioned during F2016.</p>	<ul style="list-style-type: none"> <li>• <i>Catha edulis</i> (Bushman's tea);</li> <li>• <i>Lydenburgia cassinoides</i> = <i>Catha transvaalensis</i> (Sekhukhune Bushman's Tea);</li> <li>• <i>Sclerrocarya birrea</i> subsp. <i>Caffra</i> (Marula);</li> <li>• <i>Searsia batophylla</i> (Red berry); and</li> <li>• <i>Searsia sekhukhuniensis</i> (Sekhukhuni-karee).</li> </ul>	<p>The current draft BAP will be revised to include more site specific detail.</p>	<p>The BAP implementation plan is being included in current work on consolidation of various EMPRs</p>

# Biodiversity management continued

Operation	Is the operation in close proximity to area of high biodiversity or protected area?	Biodiversity study completed	Details of red data or protected species	Status of biodiversity action plan (BAP)	Strategies for addressing impact
<b>ARM Ferrous Division</b>					
<b>Cato Ridge Works</b>					
<p>No additional land was disturbed during F2015. A total of 150 hectares had been disturbed and not yet rehabilitated.</p> <p>No communities were resettled in F2015.</p>	<p>Yes. In F2014, the new access road disturbed approximately 20 hectares of the Protected Ngonigoni grasslands, which is south and south east of the operations.</p>	<p>Yes.</p>	<p>Protected Ngonigoni grassland.</p> <p>A biodiversity study which was undertaken indicated that none of the red data species which could potentially occur in the region actually occur on site.</p>	<p>Completed.</p> <p>A biodiversity impact study confirmed that no significant impact to the Ngonigoni grassland would be caused due to historic and current disturbance by activities such as cattle grazing. A memorandum of agreement was signed between Cato Ridge Works, the Wildlands Trust and the e-Thekwini Municipality whereby Cato Ridge Works will financially sponsor the Wildlands Trust to conserve grasslands in the Inanda Dam area.</p>	<p>Implementation of the BAP is in progress. Currently aligning with contaminated land assessment as per the requirements of the Waste Act and closure and rehabilitation plan.</p>
<b>Machadodorp Works</b>					
<p>No additional land disturbed during F2015. A detailed contaminated land assessment had been done and the total disturbed land is 142 hectares. No communities were resettled in F2015.</p>	<p>Yes. The smelter is within the proposed Lydenburg Centre of Endemism.</p>	<p>Yes.</p>	<p>None.</p>	<p>The biodiversity action plan was completed in 2011. Monitoring was done during the summer of 2012 and the Biodiversity Action Plan was updated accordingly. The updated plan indicated an improvement in the ecological state in one of the four management units.</p>	<p>Implementation of the BAP is in progress.</p> <p>Contaminated land assessment as per the requirements of the Waste Act and closure and rehabilitation plan, has been completed and the findings have been incorporated into the biodiversity plan.</p> <p>A contract has been signed with the land users (lessors) in terms of alien and invasive plant management.</p> <p>A change management procedure has been developed to address any expansion proposals that are likely to affect "greenfield" areas.</p> <p>Further studies in terms of erosion management are planned for the next financial year.</p> <p>Grazing management and greening of the works is an ongoing process and is assessed as part of the annual biodiversity action plan update.</p>

# Biodiversity management continued

Operation	Is the operation in close proximity to area of high biodiversity or protected area?	Biodiversity study completed	Details of red data or protected species	Status of biodiversity action plan (BAP)	Strategies for addressing impact
<b>ARM Ferrous Division</b> <small>continued</small>					
<b>Black Rock Mine</b>					
50 Hectares were disturbed during F2015. A total of 1 464 hectares have been disturbed and not yet rehabilitated. No communities were resettled in F2015.	No.	Yes.	Camel Thorn ( <i>Acacia erioloba</i> ), Grey camel thorn ( <i>Acacia haeratoxylon</i> ) Shepherd's tree ( <i>Boscia albitrunca</i> ) Karoo lilly ( <i>Ammocaris coranica</i> ) and Devil's claw ( <i>Harpagophytum procumbens</i> ). The only threatened mammal species found are bats.	Completed and being implemented.	Implementation of the BAP is in progress (including the management of Alien and Invasive Vegetation). Monitoring done on a continual basis.
<b>Dwarsrivier Mine</b>					
0.124 Hectares were disturbed during F2015, and a total of 181 hectares of land disturbed and not yet rehabilitated.  No communities were resettled in F2015.	Yes. The mine is located within the Sekhukhune Land Centre for Plant Endemism.	Yes.	Sekhukhune Bushamn's Tea, Blue Shield Fruit, Marula and Shepherd Trees.	Completed.	The BAP is being implemented in alignment with EMP commitments.
<b>Beeshoek Mine</b>					
37 Hectares were disturbed during F2015. A total of 621 hectares have been disturbed and not yet rehabilitated. The increase in disturbed land is due to the Village Pit and associated waste rock dump. Also, plant stockpile areas became bigger.  No communities were resettled in F2015.  The mine employee village was situated where the Village Pit is being established. These employees, who rented homes from the mine, have been given the opportunity to purchase homes in alignment with the housing policy and have moved to various surrounding towns, the majority moving to Postmasburg.	No.	Partially completed. Plan to do the rest in stages due to economics.	Seven endemic and near-endemic plant species identified. Various aloes, <i>Boscia</i> trees and camel thorn trees.	There is a BAP for the current operation and the process to establish a BAP for the expanded operations, is in progress.	Continuous monitoring of impacted areas. Off set and relocation of plant in terms of the road diversion has been completed. For the Village Pit mining area, the replacement plan for protected species was implemented with limited success.

# Biodiversity management continued

Operation	Is the operation in close proximity to area of high biodiversity or protected area?	Biodiversity study completed	Details of red data or protected species	Status of biodiversity action plan (BAP)	Strategies for addressing impact
<b>ARM Ferrous Division</b> <small>continued</small>					
<b>Khumani Mine</b>					
3 649 Hectares disturbed and not yet rehabilitated. No communities were resettled in F2015.	No.	Yes.		Completed.	Impact managed in terms of commitments of the EMP. Plants removed before mining. Consultation regarding a biodiversity offset area is still ongoing facilitated by an external environmental expert.