

## 9.7 Terminal Benefits

The total terminal benefits liability (“TBL”) for the Material Properties has been determined by consideration of the TBL as at 1 January 2006 and the various employee requirements of the LoM profiles as included in the various operating options. The amounts stated as TBL<sup>(2)</sup> in Table 9.3 below do not however allow for increased length of service over the various LoM Plans and assumes that the current unit TBL per employee is equally applicable on closure. TBL<sup>(2)</sup> has been included in the FMs as presented in Section 14 of this CPR.

**Table 9.3 Material Properties Terminal Benefits Liabilities**

Operation	Unit	Terminal Benefits Liability <sup>(1)</sup> (ZARm)	Terminal Benefits Liability <sup>(2)</sup> (ZARm)
<b>Iron Ore</b>			
Sishen Mine	(ZARm)	54	126
Thabazimbi Mine	(ZARm)	14	36
<b>Coal</b>			
Grootegeeluk Mine	(ZARm)	28	229
Leeuwpan Mine	(ZARm)	3	11
Tshikondeni Mine	(ZARm)	9	19
Arnot Colliery	(ZARm)		41
Matla Colliery	(ZARm)		207
New Clydesdale Colliery	(ZARm)		13
North Block Complex	(ZARm)		2
<b>Heavy Minerals</b>			
Ticor SA	(ZARm)	7	25
Ticor Smelter	(ZARm)	3	70
Tiwest JV	(AUDm)	26	100
<b>Base Metals</b>			
Rosh Pinah	(ZARm)	7	13
Zincor	(ZARm)	11	44
Chifeng <sup>(3)</sup>	(RMBm)		2
<b>Industrial Minerals</b>			
Glen Douglas	(ZARm)	2	14
Kumba FerroAlloys	(ZARm)	1	6

<sup>(1)</sup> TBL estimates as at 1 January 2006.

<sup>(2)</sup> TBL estimates assuming execution of current LoM Plans.

<sup>(3)</sup> Nominal amounts have been included as there is no requirement in Chinese Law governing terminal benefits.

## 10. OCCUPATIONAL HEALTH AND SAFETY

### 10.1 Introduction

This section includes discussion and comment on the occupational health and safety related aspects associated with the Material Properties. Current and historical occupational health and safety statistics are presented with discussion on the more significant measures in progress to deal with identified risks, including risk management and occupational health and safety measures. Given the concentration of employees in the South African operations, detail in this section focuses on the South African operating environment in respect of occupational health and safety.

### 10.2 Occupational Health and Safety Management

Health and safety management of the Material Properties is focused on the development of company wide health and safety policies, taking cognisance of the legislation and regulatory environment. Kumba and Eyesizwe Health and Safety policies are broadly aligned and state that Exxaro will endeavour to:

- Comply with all applicable laws, regulations and standards and where adequate laws do not exist, develop and apply standards that reflect their commitment to safety and health;
- Manage risk by implementing systems to identify, assess, monitor and control hazards and to review performance;

- Maintain a consultative process with employees through Health and Safety Representatives and Committees in all aspects related to safety and occupational health;
- Provide employees with information, instruction, training and supervision which is necessary to enable them to perform their work safely and without risk to health;
- Actively practice a comprehensive Risk Management Safety Programme aimed at continuous improvement of safety and occupational health;
- Protect property, equipment, materials and natural assets from damage by fires, explosions, pollution, contamination or any other down grading incident;
- Support relevant occupational health and safety research;
- Actively participate in the Environmental Management Programmes and compliance with the requirements of Nuclear Licences;
- Keep abreast of new developments and technology.

Kumba and Eyesizwe have informed SRK that all health and safety departments adhere to both the provisions of the Mine, Health and Safety Act and the Minerals Act with full-time, as well as part-time safety representatives employed at all the Material Properties. Managerial instructions, emergency procedures and codes of practice are reasonably in place. Specific health and safety hazards identified include water, dust, fire, seismicity and falls of ground, explosions, insufficient emergency power equipment and occupational hygiene issues.

### 10.3 Legislation

Occupational health and safety in the various countries in which Exxaro operates is provided by various regulatory bodies and mining and labour legislation. In general these are well-established, and in conjunction with management's operating policies, form the cornerstone of occupational health and safety management.

#### 10.3.1 South Africa

For many years, the safety of people working in South African mines and quarries was controlled by the Mines and Works Act, 1956, and subsequently the former Minerals Act which was replaced by the Minerals and Petroleum Resources Development Act, 28 of 2002. Several incidents in mines in recent years indicated that this legislation needed to be updated and revised. The findings of the Leon Commission of Inquiry into Health and Safety in the Mining Industry in April 1994 led to the drafting of new legislation, which resulted in the Mine Health and Safety Act, No. 29 of 1996, which has subsequently been amended by Act 72 of 1997, or the Mine Health and Safety Act.

The Mine Health and Safety Act was the result of intensive discussions and consultations between Government, employers and employee representatives over an extended period of time and came into force on 15 January 1997. The objectives of the Mine Health and Safety Act are:

- To protect the health and safety of persons at mines;
- To require employers and employees to identify hazards and eliminate, control and minimise the risks relating to health and safety at mines;
- To give effect to the public international law obligations of South Africa that concern health and safety at mines;
- To provide for employee participation in matters of health and safety through health and safety representatives and the health and safety committees at mines;
- To provide for effective monitoring of health and safety conditions at mines;
- To provide for enforcement of health and safety measures at mines;
- To provide for investigations and inquiries to improve health and safety at mines;
- To promote:
  - a culture of health and safety in the mining industry;
  - training in health and safety in the mining industry; and
  - co-operation and consultation on health and safety between the State, employers, employees and their representatives.

The Mine Health and Safety Act prescribes general and specific duties for employers and others, determines penalties and a system of administrative fines, and provides for employee participation by requiring the appointment of health and safety representatives, and through the establishment of health and safety committees. It also entrenches the right of employees to refuse dangerous work. Finally, it describes the powers and functions of a mine health and safety inspectorate and the process of enforcement. It is anticipated that mining companies will incur additional expenditures in order to comply with the legislation's

requirements. Provided Exxaro maintains material compliance then SRK considers that such additional expenditures is unlikely to have a material adverse effect upon Exxaro, although there can be no assurance of this.

### 10.3.2 Australia

Health and safety in Australia is governed by various regulatory bodies and mining and labour legislation. In particular, the mining industry is governed by the Mines Safety and Inspection Act, 1994, and the Mine Safety and Inspection Regulation, 1995. Employers and employees are bound by a “Duty of Care” that outlines rights and responsibilities of the various parties with respect to the safety of both themselves and others. At State level, safety and health in Western Australia is regulated by the Occupational Safety and Health Act, 1984, and the Occupation Safety and Health Regulations, 1996, which is supported by the on-mine codes of practice.

### 10.3.3 Namibia

Health and safety in Namibia is governed by various regulatory bodies and mining and labour legislation.

### 10.3.4 Historical Safety Statistics

Table 10.1, Table 10.2 and Table 10.3 contain information on historical safety statistics.

**Table 10.1 Historical Safety Statistics – Fatalities**<sup>(1), (2), (3)</sup>

Operation <sup>(1), (2), (3)</sup>	2001 (No.)	2002 (No.)	2003 (No.)	2004 (No.)	2005 (No.)
<b>Fatalities:</b>					
<b>Iron Ore</b>					
Sishen Mine	NR			1	1
Thabazimbi Mine	NR	1			
<b>Coal</b>					
Grootegeeluk Mine	1				
Leeuwpans Mine					
Tshikondeni Mine	2	1			1
Arnot Colliery			2	1	
Matla Colliery	1			1	
New Clydesdale Colliery				1	
North Block Complex					
<b>Heavy Minerals</b>					
Hillendale Mine	NR				1
Tiwest JV	NR	NR	NR	NR	
<b>Base Metals</b>					
Rosh Pinah	NR	1			
Zincor	NR	1	1		
Chifeng Phase II	NR	NR	NR	NR	NR
Chifeng Phase III Project	NR	NR	NR	NR	NR
<b>Industrial Minerals</b>					
Glen Douglas	NR			1	1
Kumba FerroAlloys	NR				
<b>Total</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>5</b>	<b>4</b>

<sup>(1)</sup> Fatalities are all measured per million man-hours worked.

<sup>(2)</sup> Totals are estimated from weighted TECs as presented in Table 9.1.

<sup>(3)</sup> NR = Not Reported.

**Table 10.2 Historical Safety Statistics – Fatality Rate<sup>(1), (2), (3)</sup>**

<b>Operation<sup>(1), (2), (3)</sup></b>	<b>2001 (No.)</b>	<b>2002 (No.)</b>	<b>2003 (No.)</b>	<b>2004 (No.)</b>	<b>2005 (No.)</b>
<b>Fatality Rate:</b>					
<b>Iron Ore</b>					
Sishen Mine	NR			0.02	0.02
Thabazimbi Mine	NR				
<b>Coal</b>					
Grootegeeluk Mine					
Leeuwpan Mine					
Tshikondeni Mine	0.60	0.30			0.07
Arnot Colliery			0.84	0.41	
Matla Colliery	0.20			0.23	
New Clydesdale Colliery				0.61	
North Block Complex					
<b>Heavy Minerals</b>					
Hillendale Mine	NR				0.07
Tiwest JV	NR				
<b>Base Metals</b>					
Rosh Pinah	NR	0.10	0.10		
Zincor	NR	0.10	0.10		
Chifeng Phase II	NR	NR	NR	NR	NR
Chifeng Phase III Project	NR	NR	NR	NR	NR
<b>Industrial Minerals</b>					
Glen Douglas	NR			0.45	0.45
Kumba FerroAlloys	NR				
<b>Total</b>	<b>0.80</b>	<b>0.50</b>	<b>1.04</b>	<b>1.70</b>	<b>0.59</b>

<sup>(1)</sup> Fatality rates are all measured per million man-hours worked.

<sup>(2)</sup> Totals are estimated from weighted TECs as presented in Table 9.1.

<sup>(3)</sup> NR = Not Reported.

**Table 10.3 Historical Safety Statistics – LTIFR<sup>(1), (2), (3), (4)</sup>**

<b>Operation<sup>(1), (2), (3)</sup></b>	<b>2001 (No.)</b>	<b>2002 (No.)</b>	<b>2003 (No.)</b>	<b>2004 (No.)</b>	<b>2005 (No.)</b>
<b>LTIFR:</b>					
<b>Iron Ore</b>					
Sishen Mine	NR	0.85	0.48	0.53	0.29
Thabazimbi Mine	NR	0.42	0.36	0.29	0.19
<b>Coal</b>					
Grootegeeluk Mine	NR	0.40	0.20	0.20	0.40
Leeuwpans Mine	NR	0.70		0.40	0.30
Tshikondeni Mine	NR	0.40	0.30	0.70	0.50
Arnot Colliery	NR	2.60	5.10	4.90	4.80
Matla Colliery	NR	1.70	2.50	6.10	5.10
New Clydesdale Colliery	NR	0.70		3.70	1.50
North Block Complex	NR	3.80	1.90	3.60	1.20
<b>Heavy Minerals</b>					
Hillendale Mine	NR		0.10	1.19	0.40
Tiwest JV	NR	NR	NR	2.45	3.15
<b>Base Metals</b>					
Rosh Pinah	NR	0.63	0.63	0.35	0.41
Zincor	NR	0.80	0.71 0.68	0.82	
Chifeng Phase II	NR	NR	NR	NR	NR
Chifeng Phase III Project	NR	NR	NR	NR	NR
<b>Industrial Minerals</b>					
Glen Douglas	NR	0.50	4.62	1.37	
Kumba FerroAlloys	NR		1.71		2.52
<b>Total</b>	<b>–</b>	<b>13.5</b>	<b>18.6</b>	<b>26.5</b>	<b>21.6</b>

<sup>(1)</sup> LTIFR = Lost Time Injury Frequency Rate.

<sup>(2)</sup> LTIFR rates are all measured per million man-hours worked.

<sup>(3)</sup> Totals are estimated from weighted TECs as presented in Table 9.1.

<sup>(4)</sup> NR = Not Reported.

## 11. ENVIRONMENTAL MANAGEMENT

### 11.1 Introduction

The following section includes discussion and comment on the environmental management aspects of the Material Properties. Specifically, comment is included on the status of environmental legislation applicable to the Material Properties; compliance with legislation and environmental authorisations; environmental policies and management at the sites; key liabilities and risks over the life of the operation for each site; and decommissioning and closure liabilities and risks. This section of the report is based on: discussions with relevant staff at the site; review of environmental and social documentation; closure liability documentation; and site visits to inspect surface infrastructure at key sites. For the purposes of this section a liability (refer to Table 11.1) and risk are defined as follows: a liability can be assigned a monetary value to be included in the financial model (e.g. costs associated with new storm water containment) and a risk involves too much uncertainty to enable cost predictions to be made (e.g. possibility that more stringent requirements will be imposed by the regulator in the future). Risks or liabilities that would generally be addressed in terms of accepted environmental practice and that do not have significant cost implications have not been discussed. Comments are made relating to the nature of the risk/liability, the level of uncertainty and the manner in which it has been addressed. In some instances, SRK has suggested a sensitivity contingency for items that are not clear liabilities but where a preliminary cost estimate can be given to the potential risk. Without a detailed costing exercise, these values should be used to test the sensitivity of the financial model only and not taken as firm liabilities. For the purposes of this study, the criteria used for assessment purposes are those required by relevant host country legislation and generally accepted practice in the mining industry of the host country. In line with the Sustainable Development concept of the triple bottom line, social and economic issues have also been discussed, where relevant.