

DELIBERATIONS ON THE  
MINE HEALTH AND  
SAFETY BILL

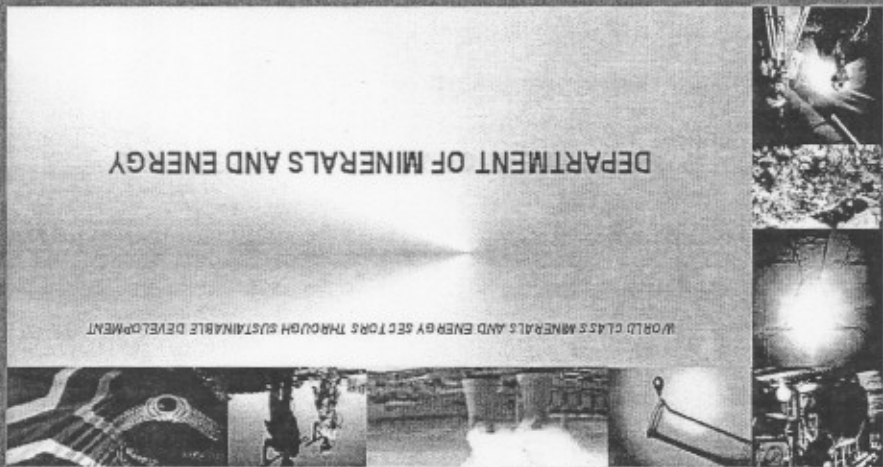
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Department of Minerals and Energy  
REPUBLIC OF SOUTH AFRICA



DEPARTMENT OF MINERALS AND ENERGY

WORLD CLASS MINERALS AND ENERGY SECTORS THROUGH SUSTAINABLE DEVELOPMENT

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Department of Minerals and Energy  
REPUBLIC OF SOUTH AFRICA



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## Background on health and safety goals.



### BACKGROUND

- MHSC declared a public entity
- MHSC set industry OHS performance goals
- Improvement of 20% per year on fatalities
- Health targets

Silicosis  
NIHL





## HISTORY: THE TRENDS AS REPORTED FOR 2005/06

	Actual fatalities 2004	Fatality rates 2004	Actual fatalities 2005	Fatality rates 2005	% change*
COAL	20	0.19	16	0.13	-31.58
GOLD	108	0.28	104	0.30	7.14
DIAMONDS	16	0.37	7	0.16	-56.76
COPPER	2	0.22	0	0.00	-100.00
CHROME	16	1.10	6	0.35	-68.18
IRON ORE	1	0.06	2	0.12	100.00
GRANITE DS	2	0.37	0	0.00	-100.00
LIMESTONE	3	0.40	5	0.50	25.00
PLATINUM	65	0.21	49	0.15	-28.57
CLAY	3	0.13	4	0.14	7.69
OTHER MINES	11	0.21	9	0.16	-28.57
<b>TOTAL</b>	<b>246</b>	<b>0.26</b>	<b>202</b>	<b>0.21</b>	<b>-16.00</b>



## Fatality Injury Frequency Rates (FIFR)

	2006		2007*		Rates
	Fatalities	Fatality rate	Fatalities	Fatality rate	
All mines	200	0.20	220	0.21	5.00
Gold	114	0.35	115	0.34	-2.86
Platinum	40	0.11	53	0.14	27.27
Coal	20	0.16	15	0.12	-25.00
Diamonds	3	0.07	12	0.28	300.00
Copper	2	0.23	1	0.12	-47.83
Chrome	2	0.12	4	0.19	58.33
Iron ore	2	0.11	4	0.13	18.18
Manganese	0	0.00	0	0.00	0.00
Other	17	0.17	16	0.16	-11.76





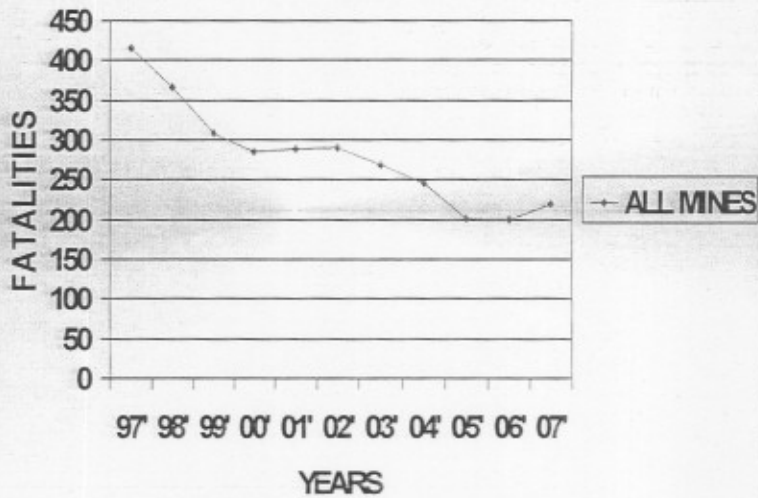
### Lost Time Injury Frequency Rates (LTIFR)

	2006		2007*		Rates
	Injuries	Injury rates	Injuries	Injury rates	% change
All mines	4169	4.14	3867	3.62	-12.56
Gold	2316	7.04	2239	6.67	-5.26
Platinum	1344	3.74	1180	3.05	-18.45
Coal	253	2.08	183	1.44	-30.77
Diamonds	45	1.04	54	1.24	19.23
Copper	19	2.22	19	2.21	-0.45
Chrome	52	3.13	53	2.48	-20.77
Iron ore	25	1.40	17	0.55	-60.71
Manganese	6	1.12	5	0.72	-35.71
Other	107	1.04	117	1.09	4.81

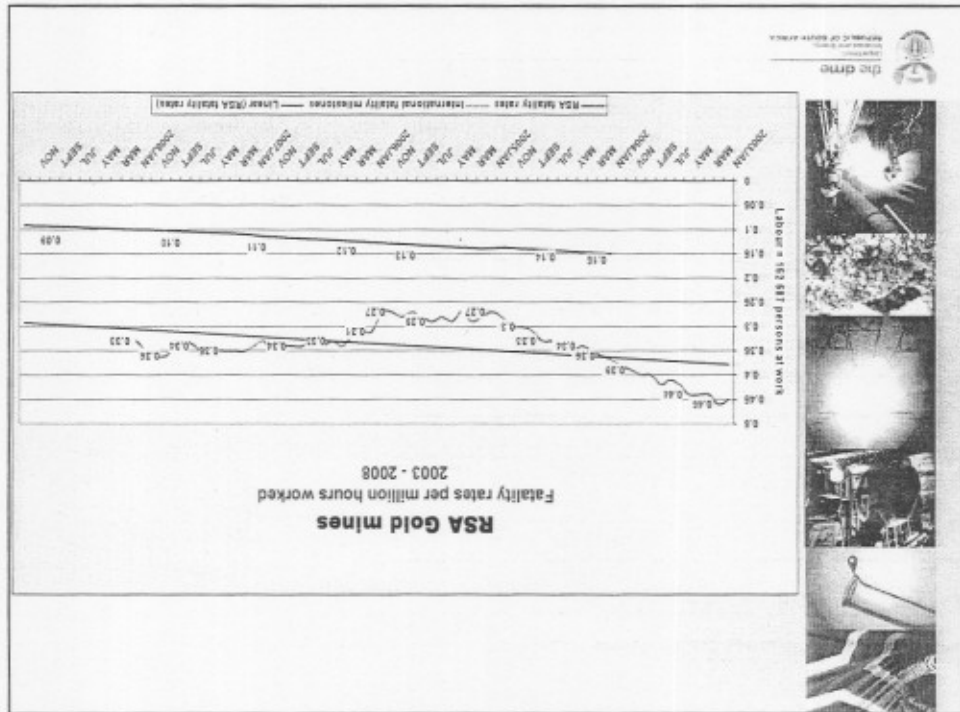
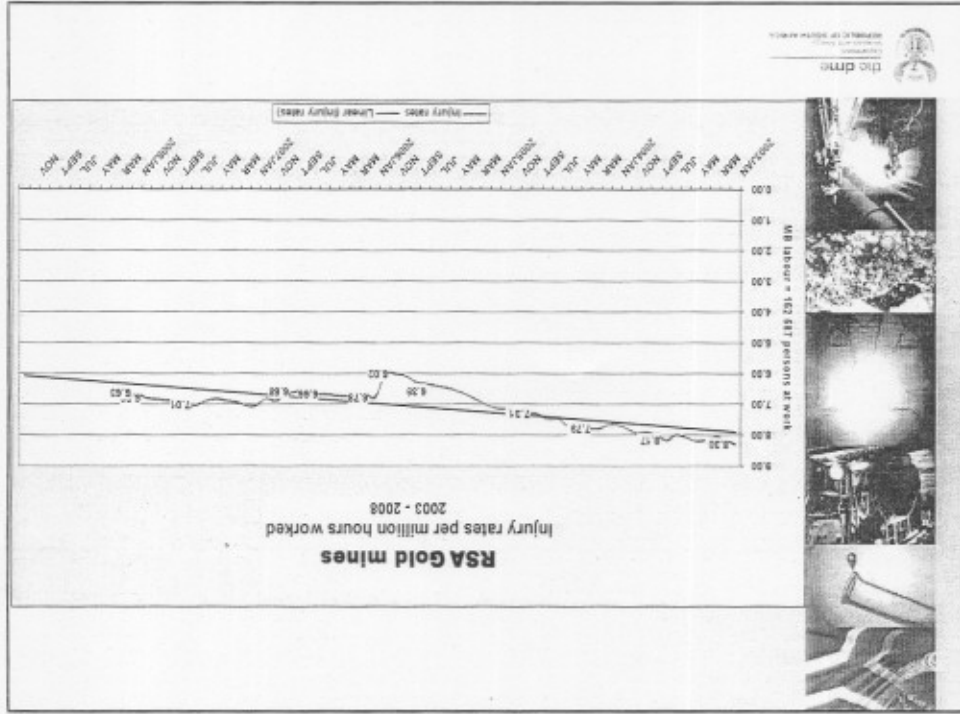

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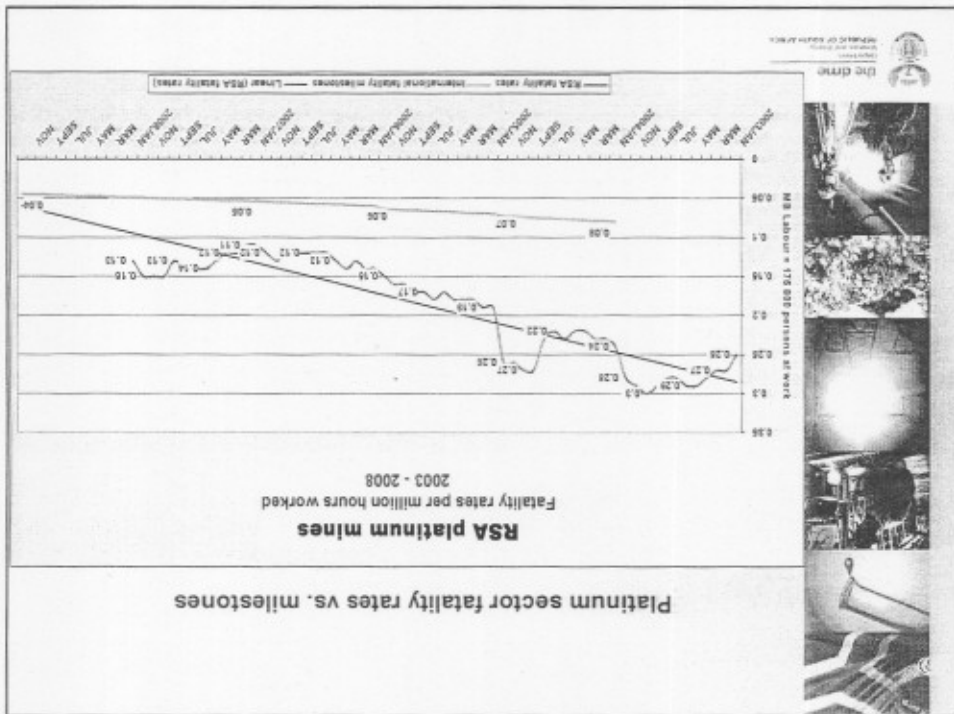
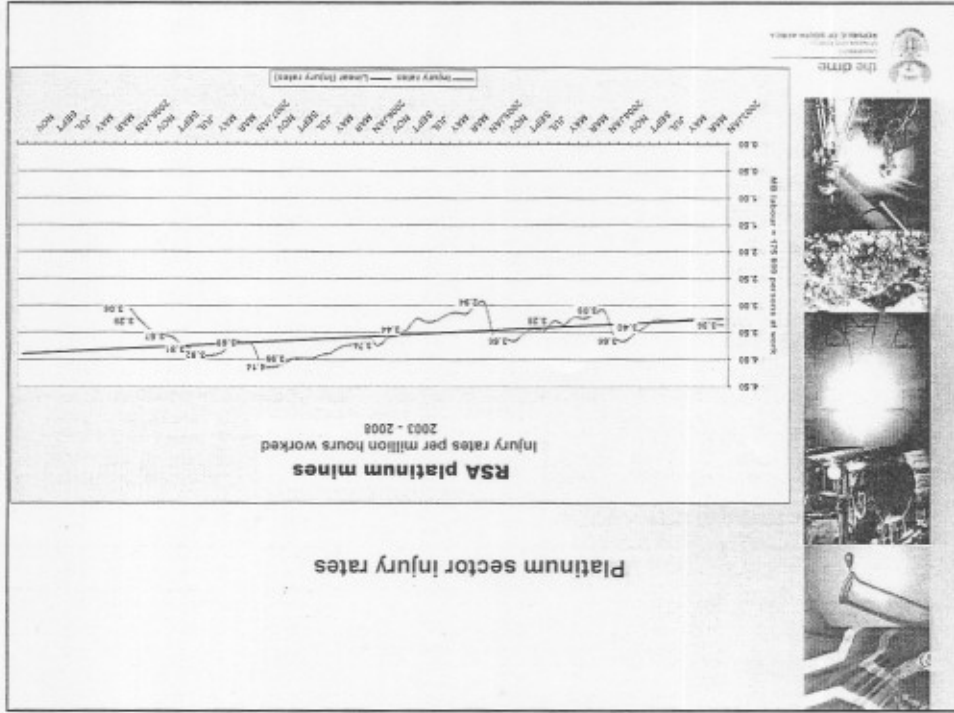
### South African Mine OHS Performance

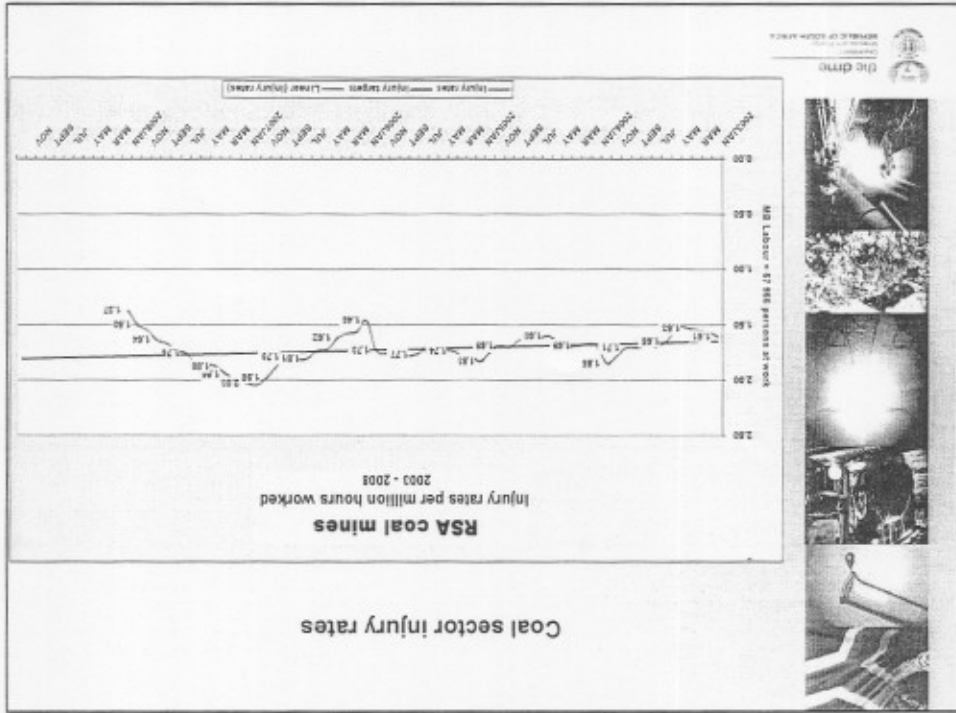



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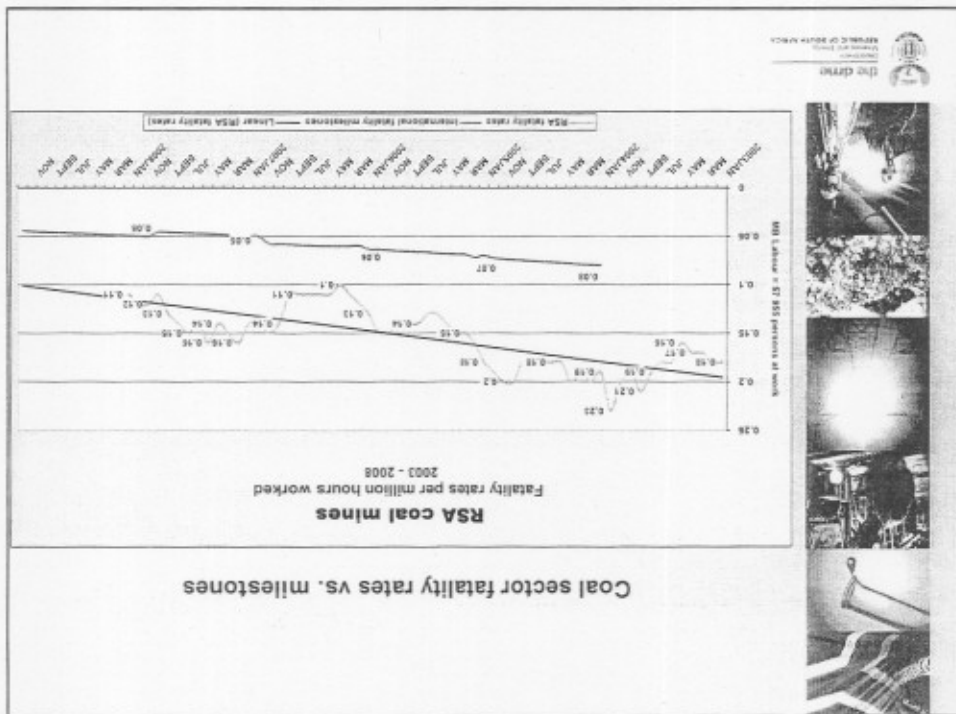








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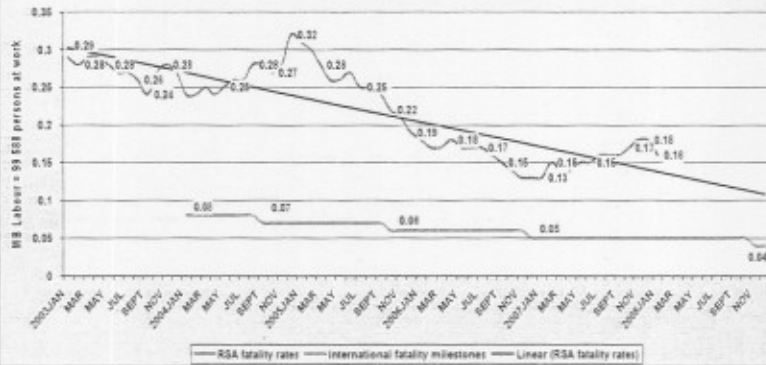
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### Other sectors fatality rates vs milestones

#### RSA Other mines

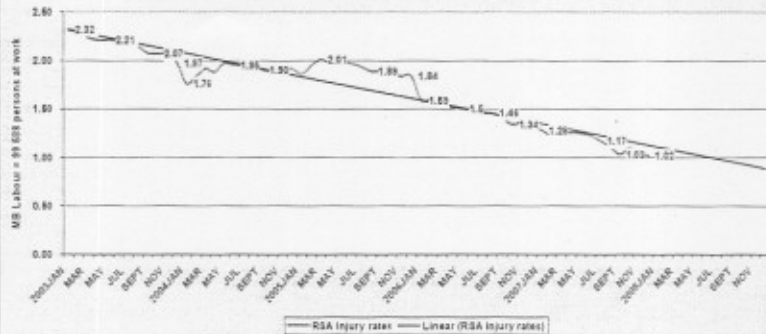
Fatality rates per million hours worked  
 Other = Total all mines, minus gold, coal and platinum  
 2003 - 2008



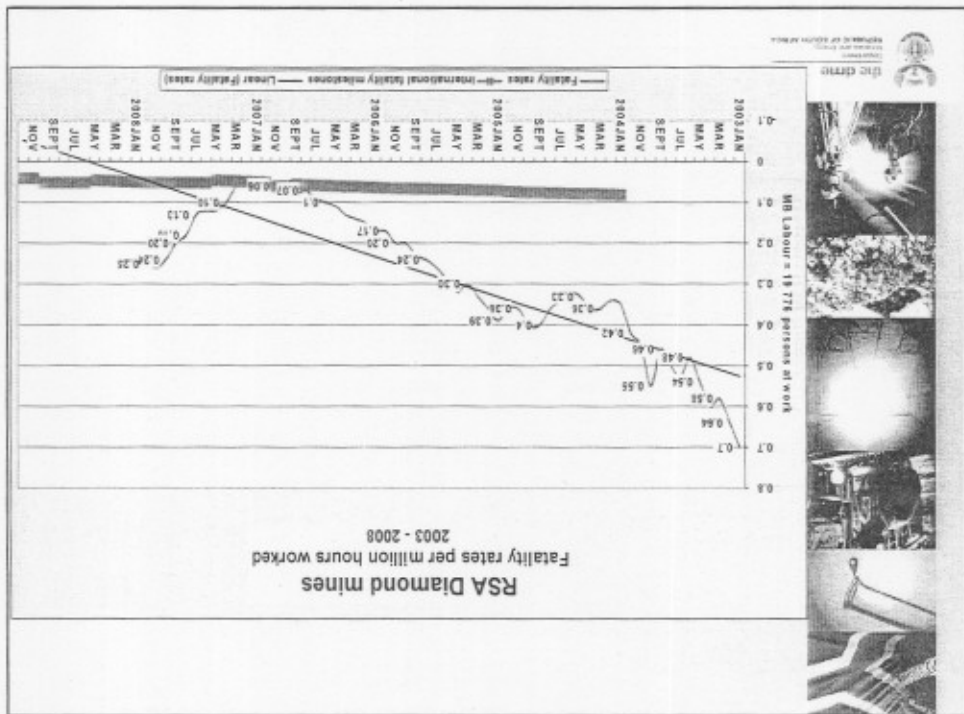
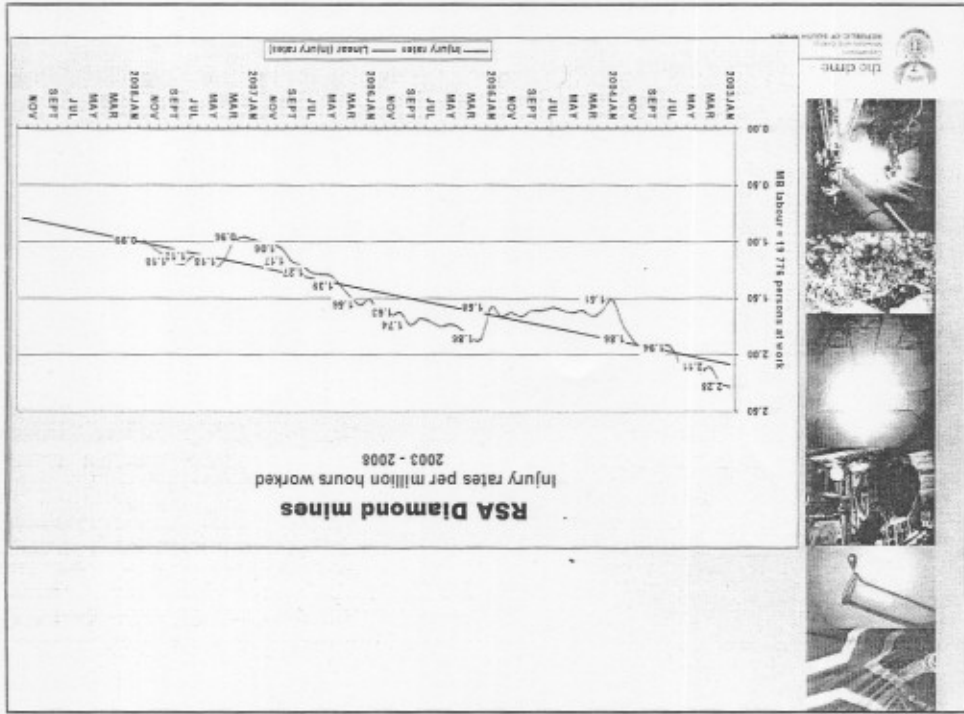
### Other sector injury rates

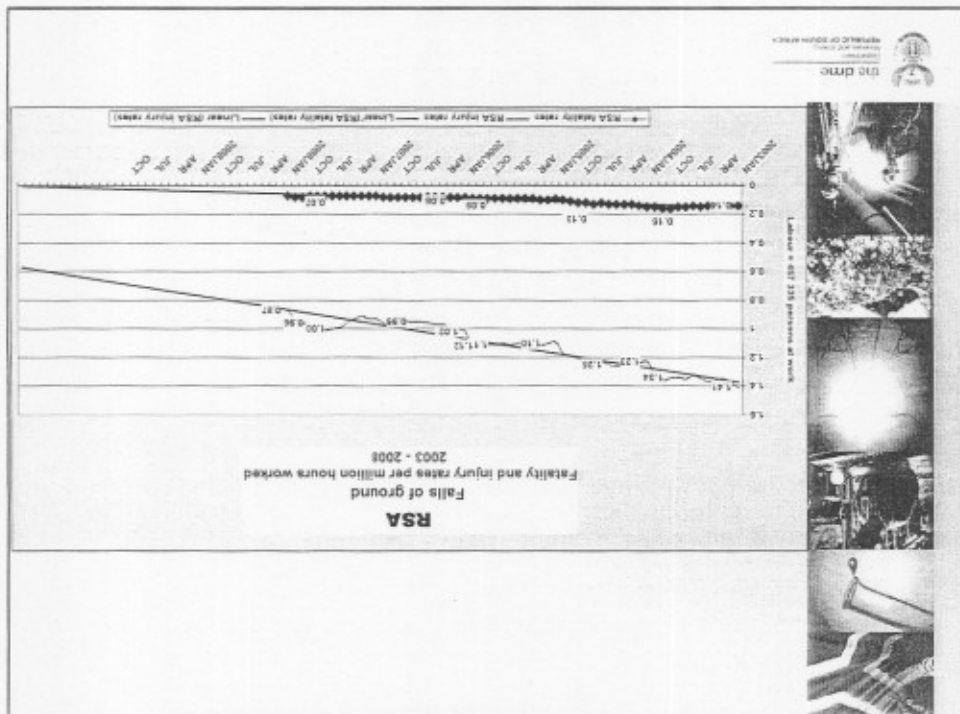
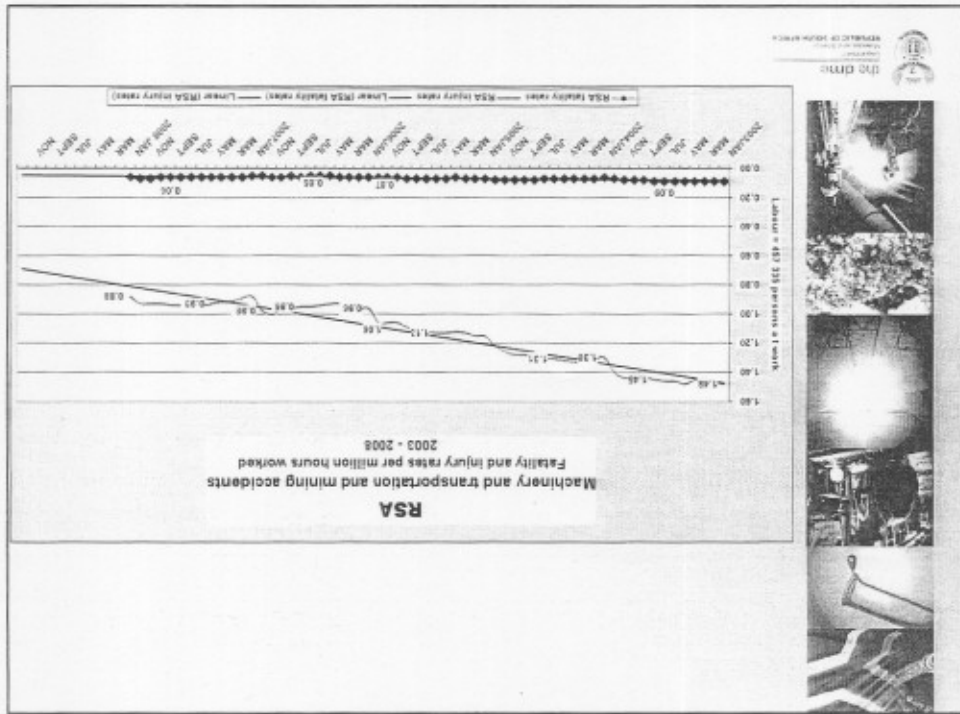
#### RSA other mines

Injury rates per million hours worked  
 Other = Total all mines, minus gold, coal and platinum  
 2003 - 2008










  
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### Persons at work 2006/2007

	2006					2007					% change
	U/G	Surface	Open	At sea	Total	U/G	Surface	Open	At sea	Total	
Gold	128435	20955	218	0	149608	127629	24727	231	0	152587	1.99
Platinum	124091	35991	3046	0	163129	131784	40376	3646	0	175806	7.77
Coal	17576	27912	9912	0	55400	18687	20220	10048	0	57955	4.61
Diamonds	3845	9032	5841	977	19695	3506	8867	6420	983	19776	0.41
Copper	1269	2533	83	0	3885	1285	2539	88	0	3912	0.69
Chrom	4962	2393	200	0	7555	6816	2603	314	0	9723	28.70
Iron ore	0	5152	2991	0	8143	0	9005	5037	0	14042	72.44
Manganese	1309	1820	126	0	3255	1293	1722	161	0	3176	-2.43
Other	1923	36813	7636	294	46665	2309	38458	7763	393	48923	4.84
<b>TOTAL</b>	<b>283410</b>	<b>142660</b>	<b>30053</b>	<b>1271</b>	<b>457335</b>	<b>293299</b>	<b>157517</b>	<b>33708</b>	<b>1376</b>	<b>485900</b>	<b>6.25</b>

Source: Mineral Economics



## Occupational Health:

### Occupational Hygiene

The mining industry has a large workforce, which is exposed to different contaminants like dusts, fibres, chemicals, noise, thermal stresses and radiation. Regulation 9.2(2) of the Mine Health and Safety Act, read with Section 12 of the MHSA, requires the employer to establish, maintain, and record occupational hygiene measurements.

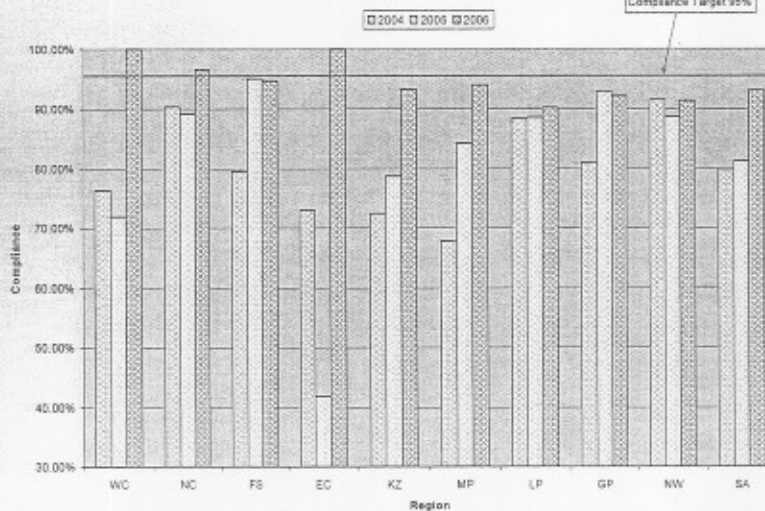


### Occupational Hygiene Measurements Airborne Pollutants Exposures

COMMODITY	Number of Persons Exposed to Airborne Pollutants per Exposure Classification Band			% Persons Exposed to Airborne Pollutants per Exposure Classification Band		
	A	B	C	A	B	C
GOLD	1494	4238	206818	0.7	1.99	97.3
COAL	7730	1462	1246	74.06	14.01	11.94
CHROME	128	0	56	69.57	0	30.43
COPPER	527	0	34	93.94	0	6.06
DIAMONDS	0	23	0	0	100	0
IRON-ORE	0	76	0	0	100	0
MANGANESE	181	3	0	98.37	1.63	0
PLATINUM	128	110	2267	5.03	4.39	90.57
OTHER	2243	514	2951	39.29	9.00	51.69
TOTAL	12429	6426	213372	5.35	2.77	91.68



### Milestone Target for Respirable Crystalline Silica (< 0.1 mg/m3)





### Noise Exposures

COMMODITY	Number of Persons Exposed to Noise per Exposure Classification Band			% Persons Exposed to Noise per Exposure Classification Band		
	A	B	C	A	B	C
GOLD	5458	39500	23929	7.92	57.34	34.74
COAL	2	19609	5574	0.01	77.55	22.44
CHROME	396	7022	339	5.11	90.52	4.37
COPPER	9	4239	915	0.17	82.1	17.72
DIAMONDS	0	322	606	0	34.7	65.3
IRON-ORE	104	2894	832	2.72	75.56	21.72
MANGANESE	0	17	86	0	16.5	83.5
PLATINUM	16622	54981	2538	22.42	74.16	3.42
OTHER	70	6356	2228	0.81	73.45	25.74
<b>TOTAL</b>	<b>22661</b>	<b>134942</b>	<b>37147</b>	<b>11.64</b>	<b>69.29</b>	<b>19.07</b>



### Thermal Stress Exposure

COMMODITY	Number Persons Exposed to Heat per Exposure Classification Band				% Persons Exposed to Heat per Exposure Classification Band			
	A	B	C	D	A	B	C	D
GOLD	139	26883	13634	7674	0.29	55.62	28.21	15.86
COAL	0	1104	4529	255	0	18.75	76.92	4.33
CHROME	52	4	485	4392	1.05	0.08	9.63	89.03
COPPER	766	545	0	1693	25.99	18.02	0	55.99
DIAMONDS	102	0	162	0	38.64	0	61.36	0
IRON-ORE	119	0	1390	1315	4.21	0	49.22	46.57
MANGANESE	0	117	2677	369	0.00	3.48	85.55	10.97
PLATINUM	1052	5052	10787	39403	1.87	8.97	19.16	70
OTHER	216	2222	2305	3067	2.77	28.45	29.51	39.27
<b>TOTAL</b>	<b>2466</b>	<b>35927</b>	<b>36169</b>	<b>58160</b>	<b>1.86</b>	<b>27.07</b>	<b>27.25</b>	<b>43.82</b>







## Medical Appeals

- In terms of Section 20 of the Mine Health and Safety Act, Act 29 of 1996, an employee can appeal against any decision of unfitness or any findings contain in an exit certificate. The following medical appeals were lodged for the reporting period:



## APPEALS STATISTICS

HEAT STRESS	3
VISION	12
HEARING	18
INJURIES	19
COAD	8
HYPERTENSION/DIABETIS	8
TUBERCULOSIS	5
SILICOSIS	0
OTHER DISEASES	0
PNEUMOCONIOSIS	0
EPILEPSY	10
<b>TOTAL</b>	<b>83</b>





## MHSC Award Scheme

- The Safety Achievement Flag for 2006/2007 has been awarded to the following mines:
- Greenside Colliery: Collieries
- Assmang Manganese: Other Mines
- Blyvooruitzicht Mine: Deep to Ultra Deep Gold/Platinum Mines
- Fairview Mine: Shallow to Deep Gold/Platinum Mines
- In the category Million fatality free shifts, 34 mines achieved a million of which 13 mines achieved 2 million and more fatality free shifts. Of the latter 9 achieved 3 million and more fatality free shifts.
- In the category Thousand Fatality free production shifts, 27 mines achieved a thousand, of which 23 achieved two thousand and more fatality free production shifts. Eleven of these achieved 4 thousand and more fatality free production shifts.



## MINE HEALTH AND SAFETY BILL

- Strengthen enforcement provisions
- Simplify administrative fines
- Reinforce offences and penalties
- Improve health and safety advice
- Improve governance of research
- Enhance consistency with other laws



