



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

QUARTER 3 (APRIL TO DECEMBER 2018)

MINE OCCUPATIONAL HEALTH AND SAFETY REPORT

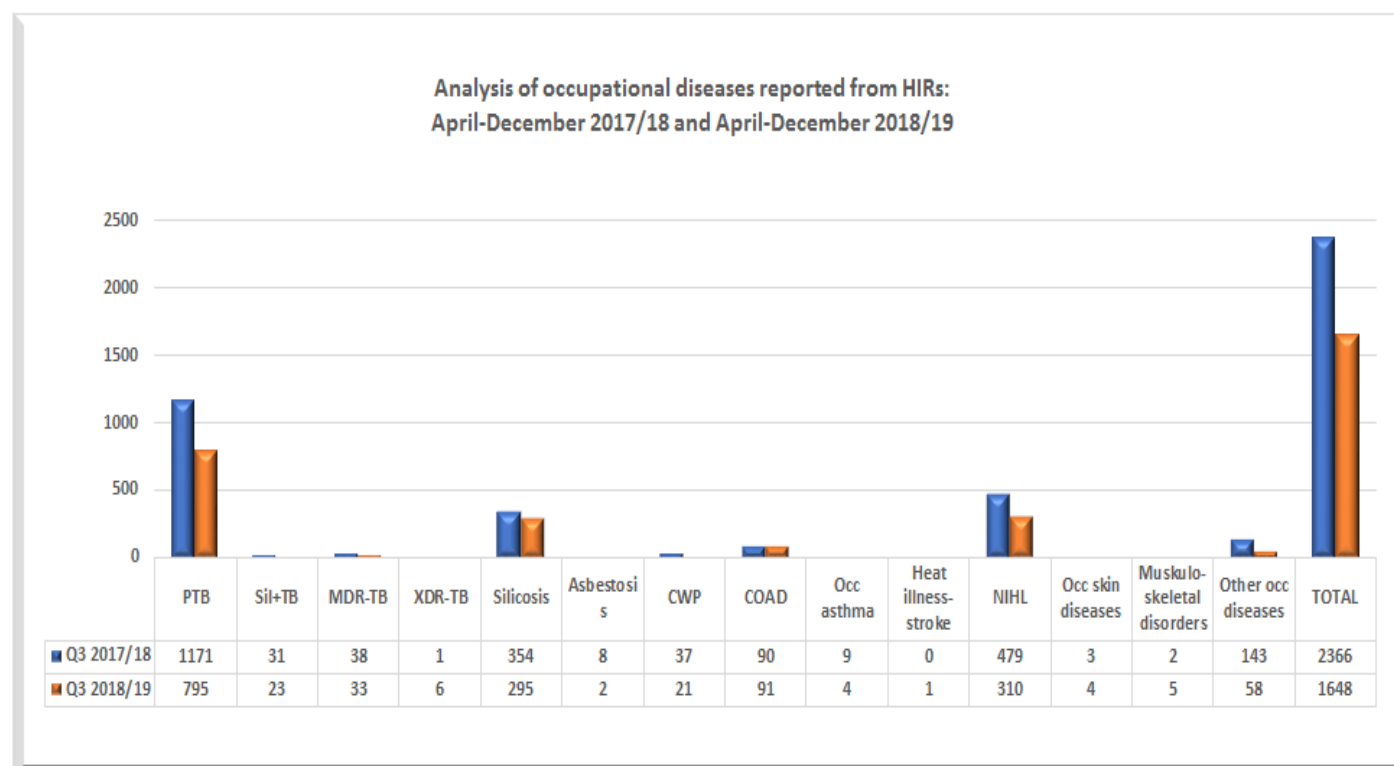
SECTION A: MINES OCCUPATIONAL HEALTH

1. OVERALL OCCUPATIONAL DISEASES PER QUARTER

During the period from April-December 2018/19, a total of **1 648** occupational diseases was reported when compared with a total of **2 366** cases reported during the same period in 2017/18. There is a noticeable decrease of **30%** on the total occupational diseases reported when compared to the same period of 2017/18.

Calculation of percentage achievement

$$(1648 - 2366) / 2366 \times 100 = - 30\%$$



2. ANALYSIS OF OCCUPATIONAL DISEASES PER REGION

The table below illustrates the total occupational diseases reported from each region. During April-December 2018/19 and 2017/18, all 10 regions reported occupational diseases.

Region	EC		FS		GR		KZN		LP		Mpu		NC		NW K		NWR		WC		TOTAL		Percentage change
	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19	
PTB	0	1	257	127	319	166	11	5	22	15	83	83	45	23	155	67	279	307	0	1	1171	795	-32%
Sil+TB	0	0	14	11	13	10	0	0	0	0	1	0	0	0	2	0	1	2	0	0	31	23	
MDR-TB	0	0	15	3	6	1	0	0	0	1	6	1	1	1	0	0	10	26	0	0	38	33	
XDR-TB	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	6	
Sil	1	0	218	99	74	72	2	0	1	1	6	5	0	0	26	92	26	26	0	0	354	295	-17%
Asb	0	0	1	0	0	0	0	0	3	0	0	1	3	0	0	0	1	1	0	0	8	2	
CWP	0	0	1	0	0	0	1	0	4	0	31	21	0	0	0	0	0	0	0	0	37	21	
COAD	0	0	36	32	30	27	0	0	2	0	17	19	1	0	0	10	4	3	0	0	90	91	
Occ asthma	0	1	0	0	5	2	1	0	2	0	0	0	0	0	0	0	1	1	0	0	9	4	
Heat illness-stroke	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
NIHL	0	0	16	18	172	79	2	8	37	8	62	38	21	9	21	12	147	135	1	3	479	310	-35%
Occ skin diseases	0	0	0	0	1	2	0	0	0	0	1	1	0	0	0	0	1	1	0	0	3	4	
Muskulo-skeletal disorders	0	0	0	0	0	0	0	1	0	0	0	1	2	3	0	0	0	0	0	0	2	5	
Other occ diseases	0	0	4	2	84	47	1	2	0	0	3	3	2	0	45	1	4	3	0	0	143	58	-59%
Total	1	2	562	294	705	407	18	16	71	25	210	173	75	36	249	183	474	508	1	4	2366	1648	-30%

3. ANALYSIS OF OCCUPATIONAL DISEASES BY COMMODITY

The comparison of occupational diseases reported by commodity during April-December 2018/19 and 2017/18 is reflected on the table below. A total of occupational diseases reported from the gold mines has shown a decrease of **43%**, the coal mines have shown a decrease of **10%** whilst there has basically been no change noted on the number of occupational diseases reported from the platinum mines when compared to the same period in 2017/18.

	Gold		Platinum		Coal		Diamond		Copper		Chrome		Manganese		Iron Ore		All other mines		TOTAL	
	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19	Q3 2017/18	Q3 2018/19
PTB	743	357	283	309	71	79	13	10	0	1	13	9	11	8	22	5	15	17	1171	795
Sil+TB	30	21	1	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	32	23
MDR-TB	19	4	10	26	6	2	0	0	0	0	0	0	0	0	0	1	0	0	35	33
XDR-TB	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
Sil	322	264	23	28	6	2	0	0	0	0	0	2	0	0	0	0	1	1	352	297
Asb	0	0	6	1	0	1	0	0	0	0	2	0	0	0	3	0	0	0	11	2
CWP	0	0	0	0	37	21	0	0	0	0	0	0	0	0	0	0	0	0	37	21
COAD	67	69	4	2	16	19	1	0	0	0	1	1	0	0	1	0	0	0	90	91
Occ asthma	4	2	2	1	1	0	1	0	0	0	1	0	0	0	0	0	1	1	10	4
Heat illness-stroke	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
NIHL	211	103	175	135	52	43	15	8	1	1	5	4	9	0	4	4	5	14	477	312
Occ skin diseases	2	3	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	3	4
Muskulo-skeletal disorders	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2	0	1	0	5
Other occ diseases	134	50	4	2	1	3	1	1	0	0	0	1	1	0	4	0	2	0	147	57
TOTAL	1533	877	508	506	190	171	31	20	1	2	23	18	22	8	34	12	24	34	2366	1648

4. ANALYSIS OF OCCUPATIONAL DISEASES BY DISEASE GROUP CLASSIFICATION – ALL MINES

4.1 SILICOSIS

The silicosis cases reported from April-December 2018/19 have decreased by **17%** when compared to the same period in the previous year (2017/18).

4.2 PULMONARY TUBERCULOSIS (PTB)

A decrease of **32%** has been noted on the pulmonary tuberculosis (PTB) cases reported during April-December 2018/19 when compared to the same period in 2017/18.

4.3 NOISE-INDUCED HEARING LOSS (NIHL)

The noise-induced hearing loss (NIHL) cases reported during April-December 2018/19 have shown a decrease of **35%** when compared to the same period in 2017/18.

5. ANALYSIS OF SILICOSIS CASES REPORTED FROM GOLD MINES

The graph below shows that during April-December 2018/19, a total of 265 silicosis cases was reported from the gold mines when compared with 322 cases reported during the same period in 2017/18. The demographic data analysis has shown that two (2) female mine employees were reported with silicosis out of 265 cases reported during the current reporting period (April-December 2018/19), whilst no female employees were reported during the same period in 2017/18. From April-December 2018/19 a total of four (4) cases were reported to have 1-5 years of service; three (3) cases with 6-10 years of service; 11 cases with 11-15 years of service; three (3) cases with 16-20 years of service; and 244 cases with more than 20 years of service in the mining industry. A total of 258 cases were reported as underground mine employees whilst seven (7) cases were reported as surface mine employees.

It must be mentioned the focus has been on the silicosis cases which have mostly been reported gold mines, even though the platinum mines have reported some cases.

Analysis of cases and prevalence of silicosis in gold mines:
April-December 2018/19 and April-December 2017/18



MINES OCCUPATIONAL SAFETY

6. OVERALL OCCUPATIONAL FATALITIES PER QUARTER

During the period October to December 2018 a total of 17 mine workers lost their lives, compared to 24 during the same period in 2017. This shows a decrease in fatalities of 29% year on year.

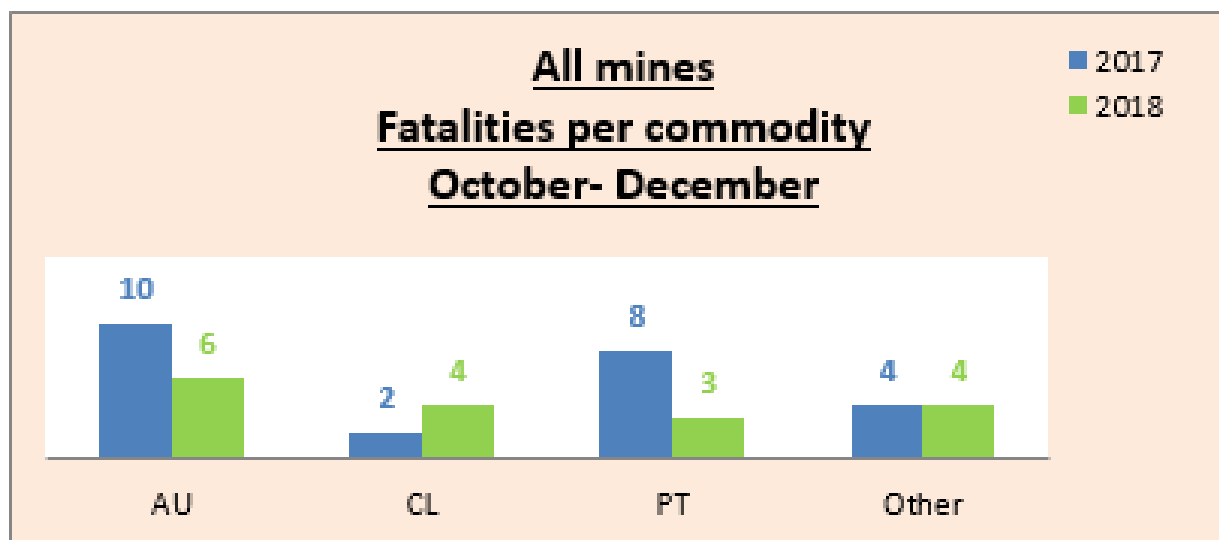
7. FATALITIES BY REGION

The table below illustrates the progressive performance of each region with regard to fatalities. During the period October to December 2018 five (5) regions managed to mine without having any fatalities.

FATALITIES PER REGION - OCTOBER TO DECEMBER 2018											
	WC	NC	FS	EC	KZN	MP	LP	GP	NW-K	NW-R	TOTAL
Fall of Ground (FOG)						1			1	3	5
Transportation and Mining (TMM)						2		1			3
Miscellaneous										1	1
General (Slip and fall)								1			1
Transportation and Mining (RBE)									1		1
General (Drowning)	2										2
General (Burning and Scalding)						1					1
General (Struck by)										1	1
Electricity								1			1
Transportation and mining (RBE)									1		1
TOTAL	2	0	0	0	0	4	0	3	3	5	17

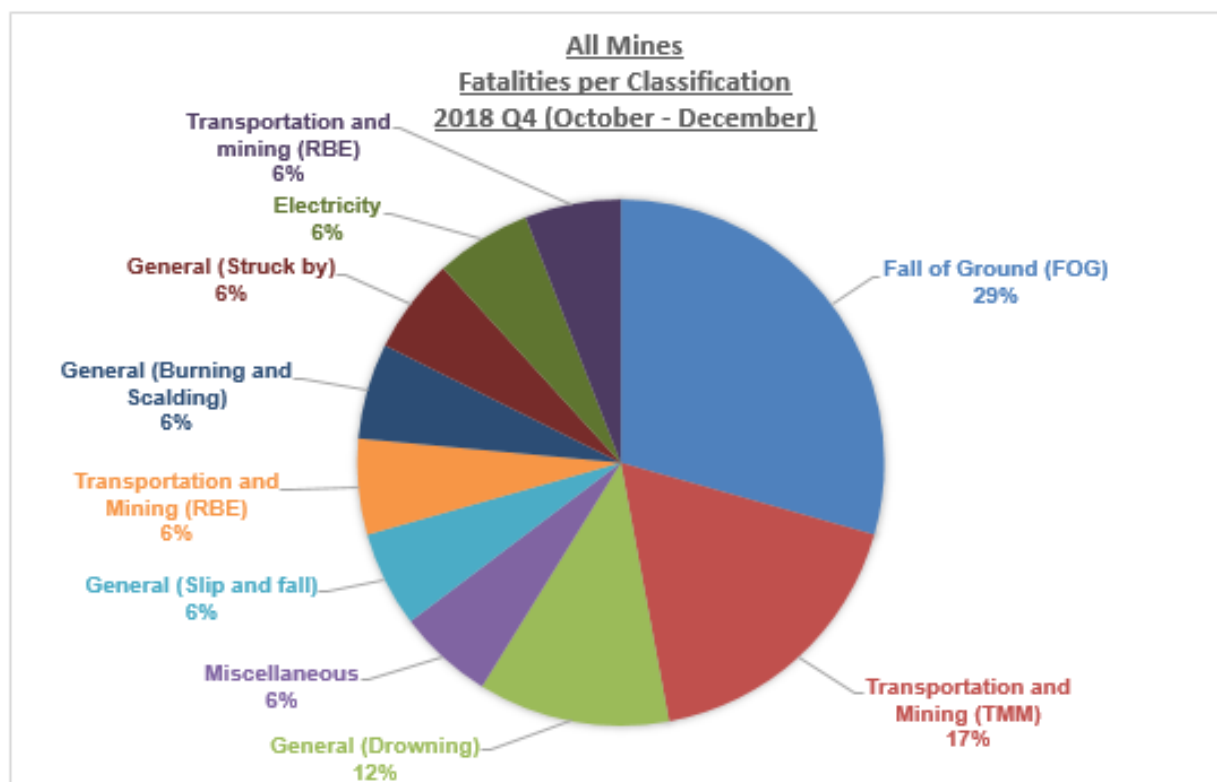
8. ANALYSIS OF FATALITIES BY COMMODITY

For the purpose of the analysis, commodities are grouped into Gold, Platinum, Coal and Other Mines (i.e. chrome, manganese, diamonds, stone, sand, brickworks, etc). The graph below shows a comparison of the period October to December 2018 to the same period in 2017. There has been a decrease in the number of fatalities of 40% and 63% in the gold and platinum sectors respectively while the coal sector shows an increase of 100% and the other mines sector shows no change.



9. ANALYSIS OF FATALITIES BY CLASSIFICATION

During this period, statistics show that fall of ground accidents are the highest contributors of fatalities reported.



9.1 FOG (29%)

There were **five (5)** fatalities reported in this category in this period. **One (1)** each was reported at a granite mine, a platinum, a chrome mine, a gold mine and a coal mine. All **five (5)** accidents were gravity related.

9.2 Transportation and Mining (TMM (Trackless Mobile Machines)) (17%)

There were **three (3)** fatalities reported in this category in this period. **Two (2)** were reported at the coal mines and **one (1)** at a gold mine.

9.3 General (Drowning) (12%)

There were **two (2)** single incident fatalities reported in this category in this period at a bricks operation.

9.4 Transportation and mining (RBE-Railbound Equipment) (12%)

There were **two (2)** fatalities reported in this category in this period at a gold mines.

9.5 Miscellaneous (6%)

There was **one (1)** fatality reported in this category in this period, at a platinum mine. The now deceased Surface Belt Attendant was fatally injured when he fell backwards onto the walkway and rolled off the walkway, falling 10m down to the ground.

9.6 General (Slip and fall) (6%)

There was **one (1)** fatality reported in this category in this period at a gold mine.

9.7 Transportation and mining (RBE-Railbound Equipment) (6%)

There was **one (1)** fatality reported in this category in this period at a gold mine.

9.8 General (Burning and scalding) (6%)

There was **one (1)** fatality reported in this category in this period at a coal mine.

9.9 General (Struck by) (6%)

There was **one (1)** fatality reported in this category in this period at a platinum mine.

9.10 Electricity (6%)

There was **one (1)** fatality reported in this category in this period at a gold mine.

10. CONCLUSION

A long lag time period from the employee's exposure to workplace occupational health hazards to the manifestation of the occupational disease is noted. The monitoring of occupational diseases trends serves as a lagging indicator in evaluating the mines' the occupational health performance. The identified occupational medicine strategy initiatives are implemented by regions on an on-going basis. Furthermore, the occupational diseases reported by mines are cases diagnosed during each mines' planned programme of medical surveillance conducted in terms of Section 13 of the MHSA, and the programme is not conducted simultaneously by all mines.

Falls of ground accidents were the highest, followed by Transportation and Mining (TMM – Trackless Mobile Machines). Active supervision, active monitoring of ground movements, strict adherence to the support standards, implementation of PDS (Proximity Detection Systems) together with training of employees can go a long way in our efforts to combat the loss of lives in the South African Mining Industry.