

OPENING REMARKS - SEISMICITY DAY OF LEARNING 20 September 2017 Stanford MaMOSHito Malatji

– Head: MOSH Learning Hub



Outline of presentation



- Industry Commitment to Zero Harm
- Observations by the Parliament Portfolio Committee on Mineral Resources
- Seismicity related developments towards zero harm
- Acknowledgements

Commitment to Zero Harm



- Our heartfelt condolences to the loved ones of all those who lost their lives in mining
- We are committed to the shared vision of zero harm, every employee returns from work unharmed every day
- Since 1993, fatalities have reduced from 615 to 73 in 2016 and injuries from 9228 to 2662
- We will continue to collaborate tirelessly with government and unions to achieve zero harm
- Health and safety is a non-competitive issue requiring leadership from the top and continued, significant investment



Mineral Resources PPC's Observations



- "The oversight draws direction and focus from the recent study tour that the Committee undertook to Australia, which provided insights into a "resource safety" system that emphasised managing risk as opposed to a concentration on laws, regulations, inspection and compliance'.
- "The earthquakes and earth tremors created by seismicity are an increasingly important threat underground as the mines have succeeded in greatly improving accident, injury and fatality rates that are due to other issues".
- "The numbers of workers who lose their lives in mining has fallen remarkably, as better health and safety
 practices have been adopted by mines and are applied in the workplace by workers. This then requires a
 new discussion on how to deal with the safety risks that cannot be controlled, but which are an inevitable
 part of mining such as seismic events".

Seismicity disasters, 2003-2017



Number of disaster fatalities	Name of mine	Date of Disaster	Number of disasters
5	TauTona Gold Mine	1-Apr-03	1
4	TauTona Gold Mine	26-May-03	1
			0
4	Harmony Gold Mine, Virginia	7-Mar-05	1
5	Driefontein Consolidated Gold Mine	10-May-05	1
5	TauTona Gold Mine	23-Oct-06	1
			0
			0
			0
			0
			0
			0
			0
			0
			0
			0
4	Tau Lekoa Gold Mine	22-Jul-17	1
5	Kusasalethu Gold Mine	25-Aug-17	1
32			7
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Seismicity



- 2008 leadership stated:
 - All fatalities and injuries, including those from seismicity, are preventable
 - Seismic events cannot be predicted but harm from them can be avoided
- We should spend our efforts wisely i.e. not on prediction because it is like the weather, but on prevention of harm through:
 - Mine designs
 - Support systems e.g. nets with bolts as promoted by MOSH Learning Hub
 - Continuously invest in new research such as Harmony Chair of Rock Engineering at University of Pretoria
- Actions in the last decade
 - Mine Health and Safety Council and industry spent over R250 million in research
 - Chamber of Mines commissioned a study to summarise the leading practices
- Results
 - Number of fatalities reduced from 48 in 2003 to 7 in 2016

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