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MinEx – Fitting together the puzzle and working to industry targets

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Current status of H&S in our industry

- The new MinEx: a partnership between the mining & quarry sectors & including the union (EPMU)
- Fit for purpose regulations Dec 2013 – excludes quarry & alluvials
- But – requires some amendments & these are required now
- Working actively with WorkSafe & Government but there is resistance from MBIE
- Regulations need to be supported by codes & guidelines & this is a work in progress

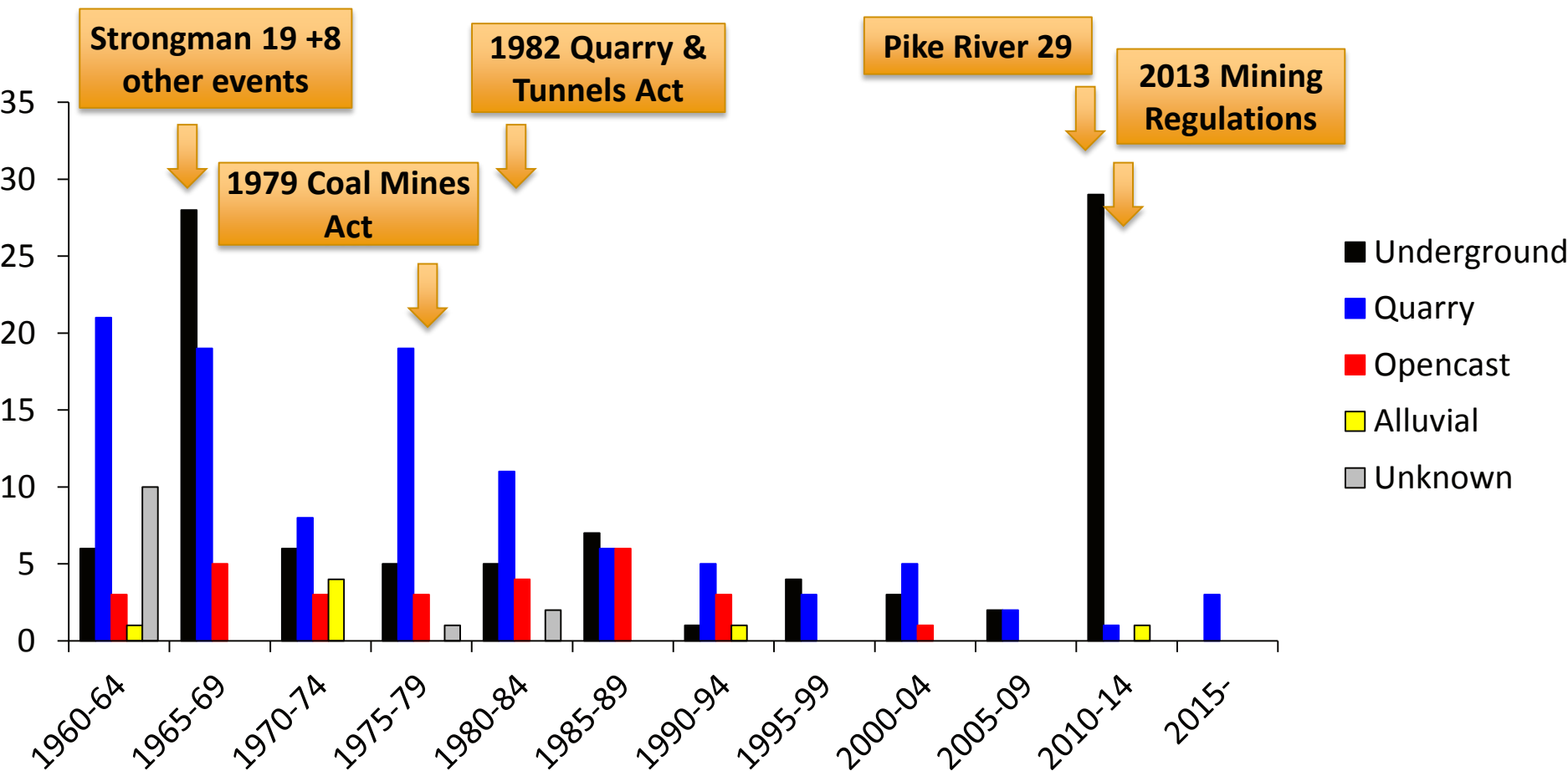
But.....

- Pressure on quarry sector post Pike River after 4 fatalities this year
- All in small, unengaged operations
- Two are specifically regulated under the 2013 regulations:
 - Ground instability, Roads and other vehicle operating areas
- The others were well known generic hazards:
 - Equipment guarding, River crossings
- There is a need for leadership and better safety performance in all sectors



Industry H&S performance

New Zealand Mining Industry Fatalities since 1960 by Sector

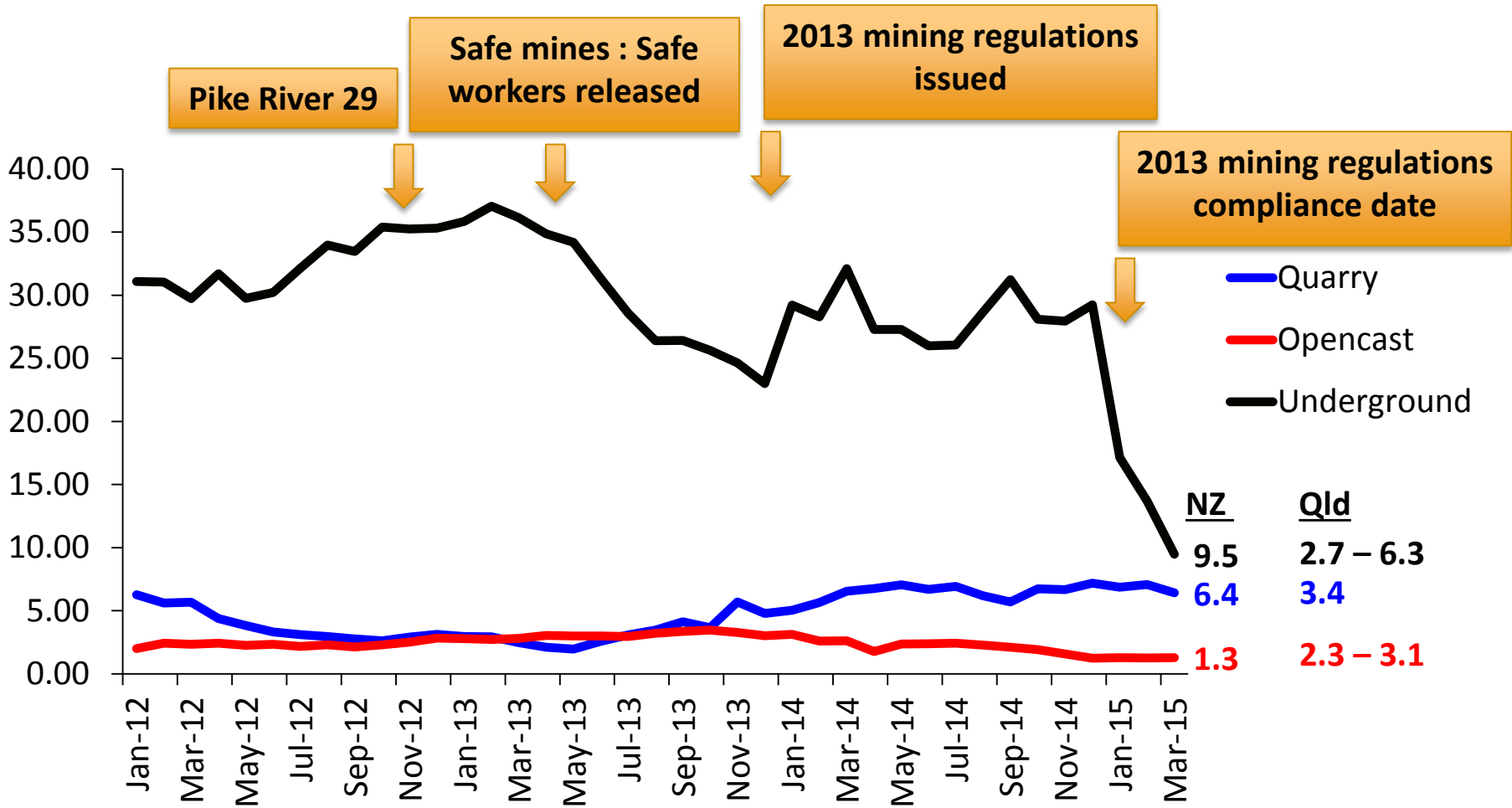


Source: The International mining fatality database at:

http://www.dpi.nsw.gov.au/data/assets/pdf_file/0009/182484/International-Mining-Fatality-Database-project-report.pdf

Looking at LTI rates since 2012

LTI rolling 12 month frequency rate (per 1M hrs)



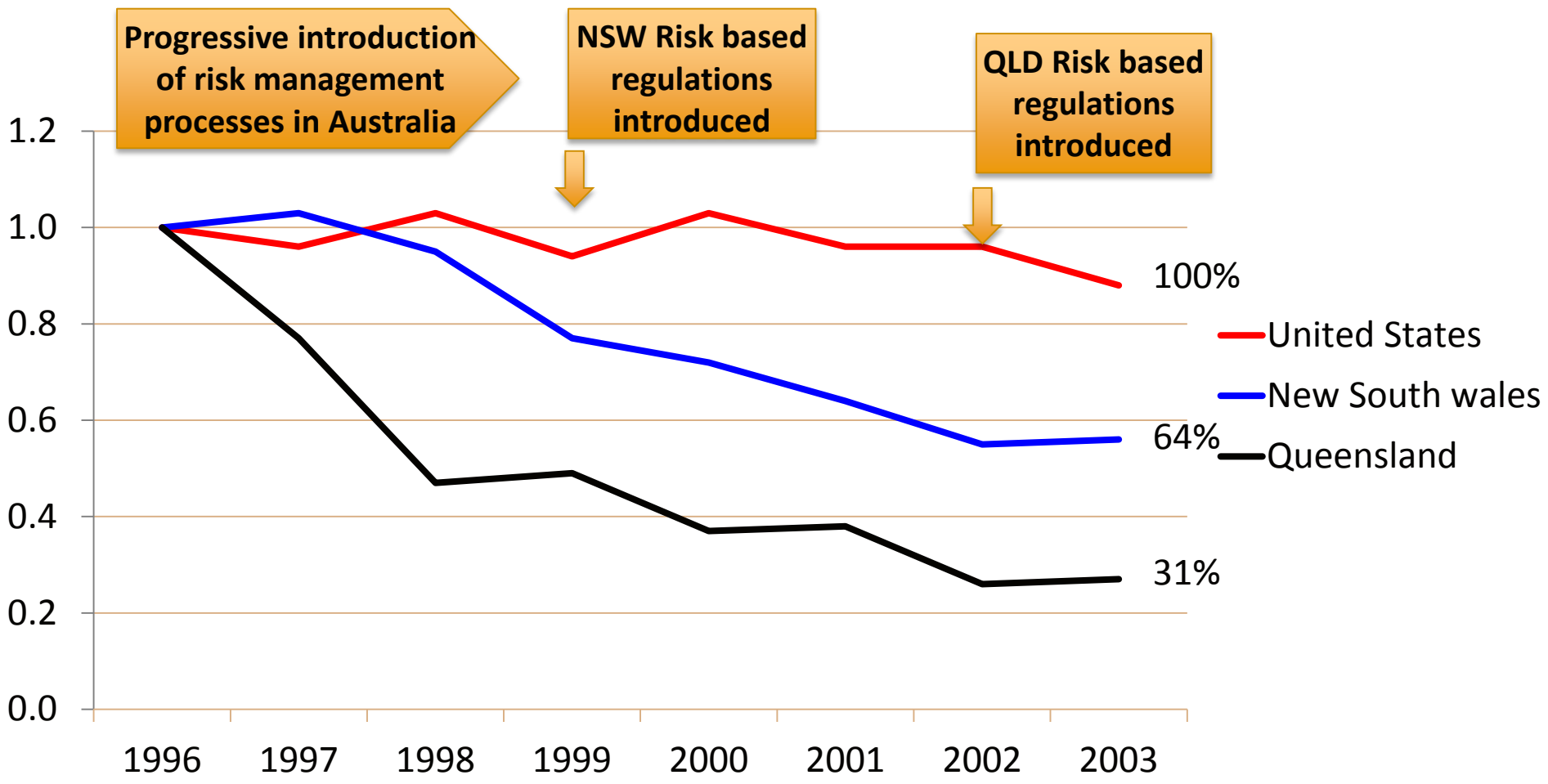
NZ data source: MinEx H&S statistics

Queensland data source: <https://www.business.qld.gov.au/industry/mining/safety-health/mining-safety-health/accidents-incidents/safety-performance-reports-statistics>

Compliance versus risk based regulations

Adjusted* incident rate ratios for lost-time injuries by region

*Adjusted for tons of coal produced, number of miners employed and underground status relative to 1996 and using GEE.



Source: International evaluation of injury rates in coal mining: A comparison of risk and compliance-based regulatory approaches, 2008

Clearly we need to do more on H&S improvement

- A key issue is a lack of engagement

- What is MinEx & WorkSafe doing to address this?:
 - Current MinEx/WorkSafe Extractive forums
 - Flush out the non-engaged

 - 3 held in Greymouth (100), Tauranga (70) & Alexandra (45)

 - More scheduled for Whangarei (15 Sept), Ashburton (6 Oct), Napier (29 Oct), Invercargill (26 Nov), Palmerston North (Dec)

 - Further round in 2016

Regulations for the quarry & alluvial gold sectors

- The 2013 regulations need amending for quarry/alluvial sectors
- MinEx's objective is to improve the health and safety performance of the entire mining and quarry industry:
 - Consistency of approach
 - Sharing resources
 - Consistency of enforcement

What are the other H&S issues we need to address?

- » Leadership
- » Regulations
- » Health
- » Training

Worker health

- NZ wide workplace accident fatalities per year = 70
- NZ wide workplace health deaths per year = 700
- This is the tip of the ice if we start to look at health related lost time
- What are the areas we need to focus on?
 - Crystalline silica
 - Diesel particulate matter
 - Musculoskeletal Disorders

Crystalline silica

- Silicosis is a disease of miners known for centuries
- A form of lung disease caused by crystalline silica dust
- World wide 2013 46,000 deaths
- WorkSafe proposed WES in July 2015
 - 0.025 mg/m³ – a 4 fold reduction
- MinEx submitted that change in the WES was not warranted, but
- Greater focus on monitoring & control required

Diesel particulate matter

- Dr Brian Davies will address this subject in the next session
- WorkSafe proposed WES in Oct 2014 of 0.1 mg/m³ of air
- MinEx submitted 0.4 mg/m³ based on Ontario, Canada
- Western Australian industry guideline suggests 0.1 mg/m³
- We need to raise awareness & focus on improvements

Musculoskeletal Disorders

- What does this mean?
- What is whole of body vibration?
- Whole of body vibration back-pain health risk exceeds that from poor lifting techniques
- Again we need to raise awareness & focus on improvements

Training

- Reviewed Extractives qualifications in 2014
- New units are now registered
- New qualification approved but not yet registered
- Training providers/MITO developing new training material where required
- Board of Examiners released CoC requirements Dec 2014
- Training in these commenced 2nd Quarter 2015
- Most CoC holders will complete by 1 Jan 2016

Training quality

- All Training Providers in the Extractives area audited June/July 2015
- ITNZ deregistered for Extractive units Aug 2015
- Trainer/Assessors working under ITNZ could still transfer to other Training providers
- Straterra has set up a Training Forum for 17 Sept to work through current training issues
- Improved H&S performance requires a lift in training standards
- Unit standard specifications require compliance with acts, regulations, standards, codes and guidelines so all teaching material must include related H&S requirements

Surface mine & quarry guidance

- An example of a document unit standards must have regard to
- It will be an excellent teaching resource
- The 3rd draft has been reviewed by a MinEx review team
- We meet with HHU 10 Sept to discuss our submission

In conclusion

- Change has become a constant since 2013
- Have we got it right? – yes
- Have we finished? – no
- Are all sectors where they need to be? - No