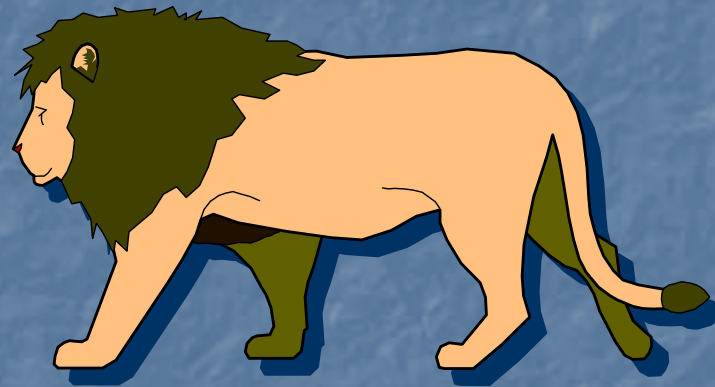


High Pressure Hydraulics Workshop



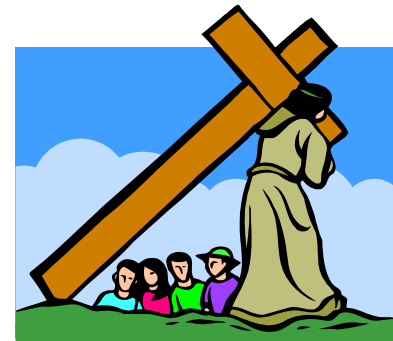
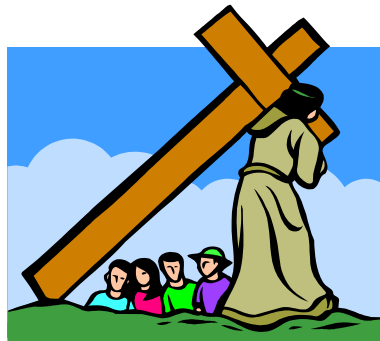
By Wally J Koppe
Inspector of Mechanical Engineering
16 May 2007

FATALITIES

- Gretley – Hydraulic intensification of chock leg circuit – oil injection
- South Coast – Failed accumulator fitting on start circuit of diesel engine – oil injection
- Angus Place – Disconnected staple fitting on LW hydraulic pump station
- Sanborn Mine, USA – Staple type hose end failed due to mechanical overload between tailgate chocks

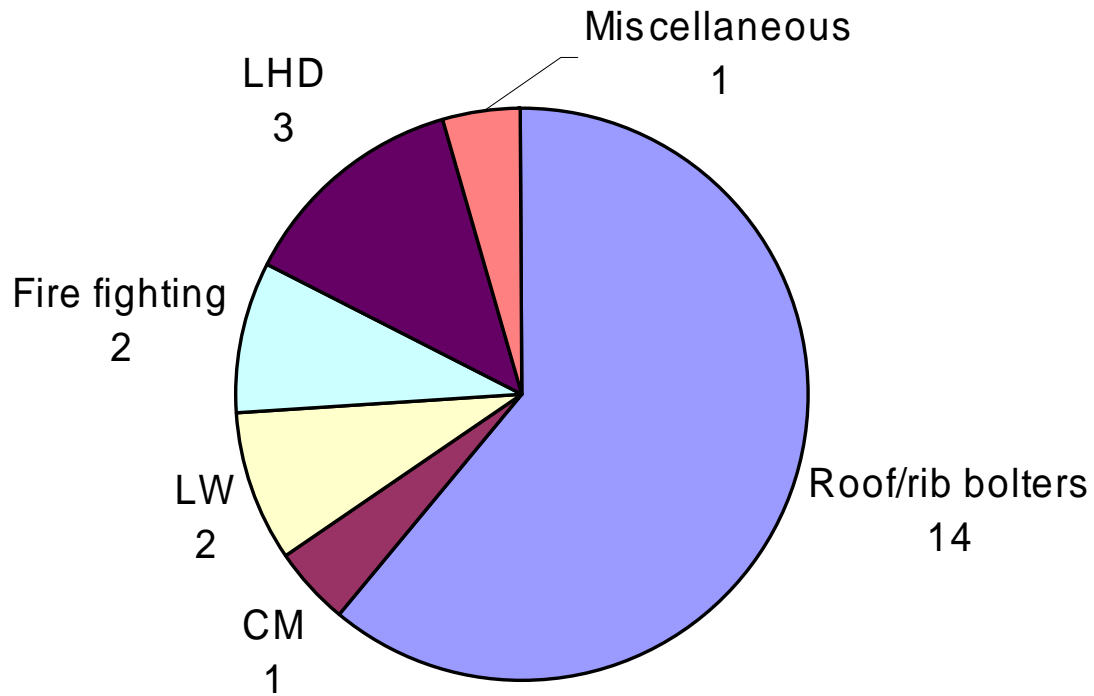
PRAYER FOR THE MINING INDUSTRY:

Our losses shall not be in vain - we will learn
and prevent

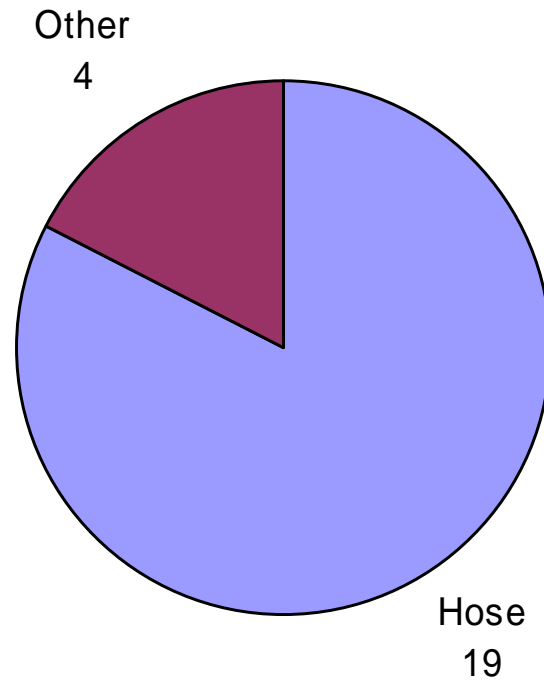


MINE "A"

23 notifications in 15 weeks



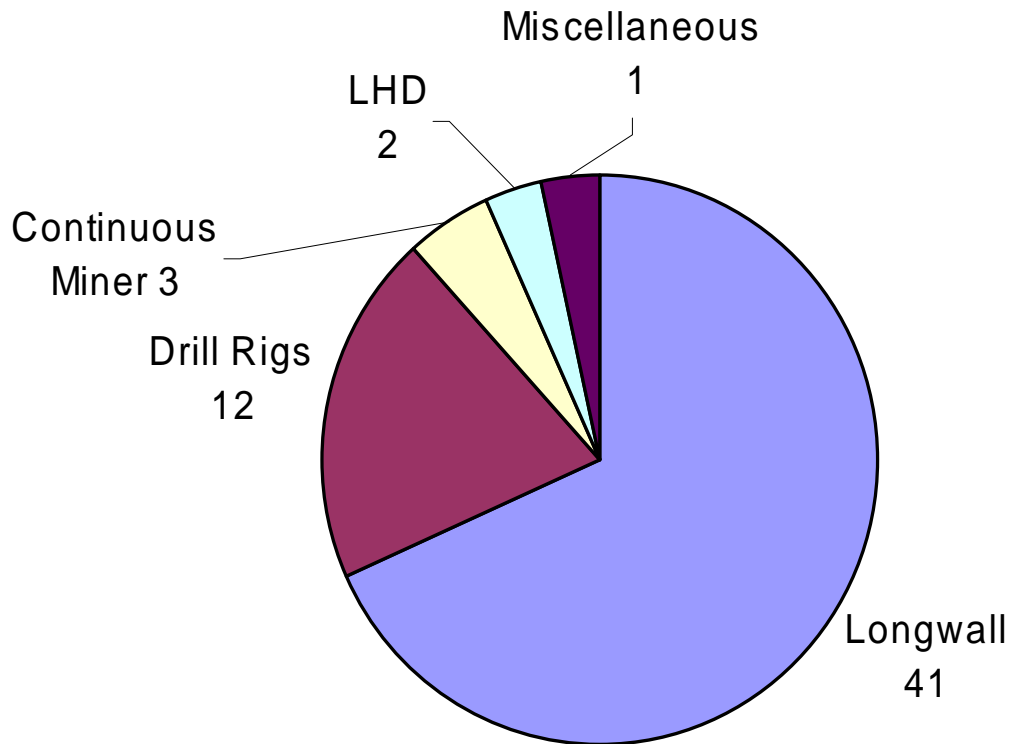
MINE A



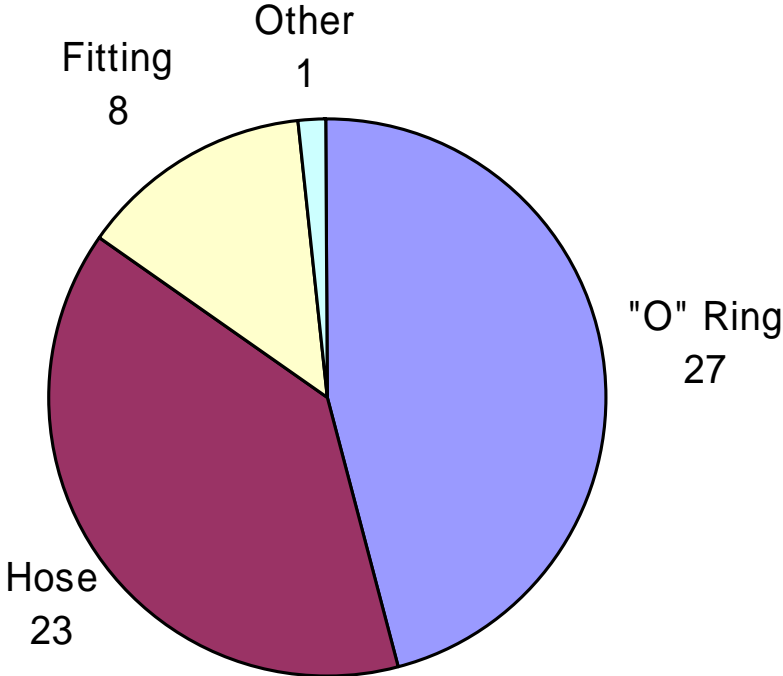
TREND: 1.5 notifications per week

MINE "B"

59 Notifications in 6 weeks



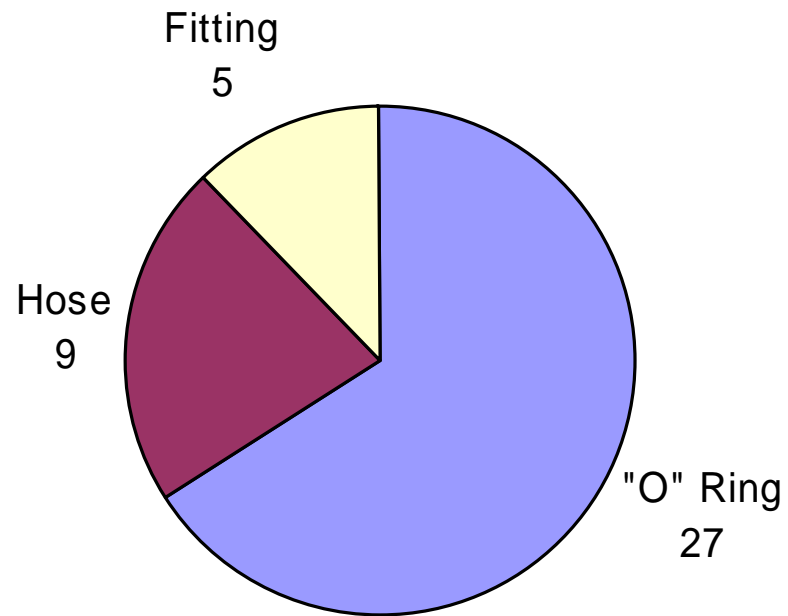
MINE B



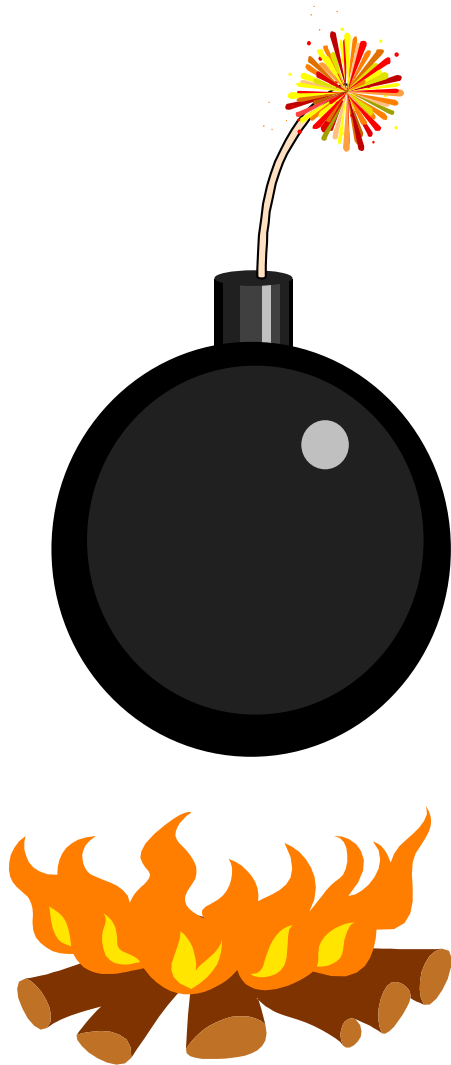
TREND: 9.8 notifications per week

MINE B

41 - LONGWALL



TIME BOMB or SAFE



MANAGEMENT - Issues

- CMHS Regulations – Notification
- OHS Plant Regulations

- MINE
 - Safe Plant
 - Communicate with
 - Supplier
 - Manufacturer
- Supplier/Manufacturer
 - Safe plant
 - Risk assess
 - Investigate
 - Limitations
- Production Delays



SYSTEM MANAGEMENT

- IDENTIFY
- TREND
- CORRECT
- REVIEW

HOW?

Examine



- 
- **FITTERS REPORTS**
 - Standard document
 - **COLLECT** failed components
 - **INVOLVE** suppliers
 - **SUPPLIER IDENTIFICATION**
 - Staples
 - Fittings
 - Hoses
 - Hose sleeves



■ TESTING

- factors of safety
- fatigue life
- fit for purpose

■ SPECIFICATION

- not just to a standard

■ TRAINING

- tradesmen
- engineers
- store

■ STANDARDS

■ GUIDELINES

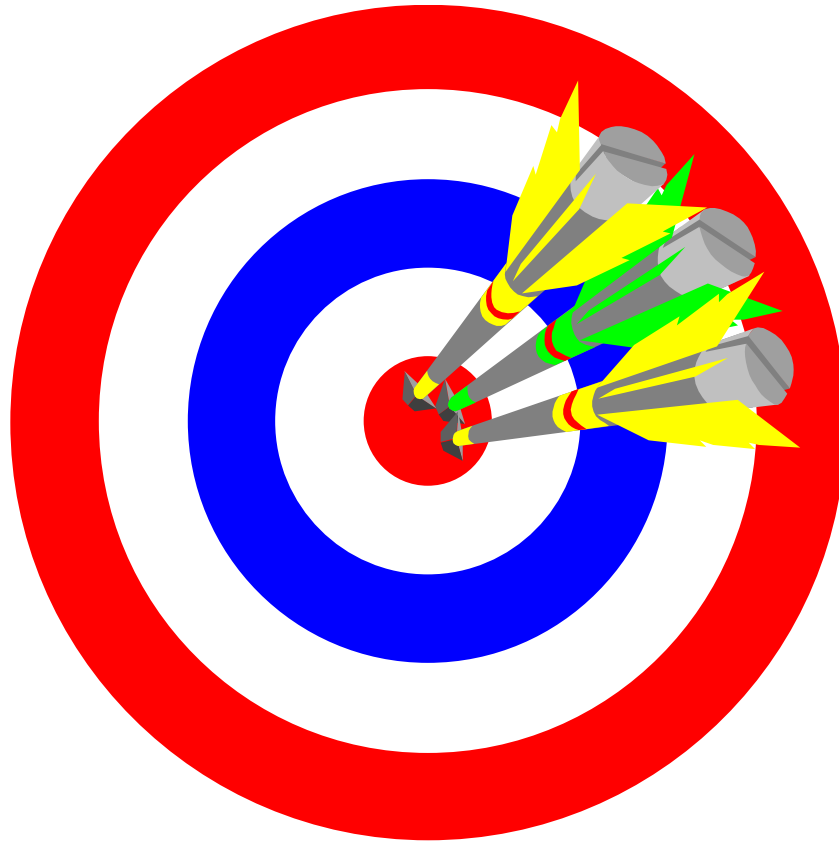
LEARN FROM OTHERS



- Experience is a hard teacher,
First comes the test - then the lesson
- Living at risk is jumping off the cliff and
building your wings on the way down



TARGET AREAS



TARGET

- Hoses
- Fittings
- Isolation
- All failures