

# SIGNIFICANT INCIDENTS - SAFETY INITIATIVES

**PRESENTER:**

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Department of Minerals & Energy  
Mackay*

Breaking the Safety Barrier - That's what Significant Incidents are about.

The lottery you do not want to win.

Russian Roulette the game goes on and the costs are high.

Corporate Management has and is realising that safety is not only first, but in the 1990's and beyond, is second and third as well.

Today we can see those companies which are placing safety as the No 1 Management and Operational priority from the Board of Directors down.

Safety is simply not only a fact but a state of mind and if Duty of Care and Enabling Legislation is to succeed, the mining community **MUST SINCERELY** place **SAFETY 1, 2 AND 3**. First, second and third. Safety must not only be a **FACT**, but **BE IN FACT, "A STATE OF MINE AND MIND"**.

**THE COSTS ARE HIGH AND IF WE DO NOT SUCCEED.**

**WE MUST HAVE PRESCRIPTIVE AND CLEARLY** documented Legislation.

**SO THE** opportunity is in industries court.

**TO SUCCEED OR FAIL IS UP TO US ALL.**

**THE MEASURE** of this success will be obvious, it will show in many ways.

LEADING WITH SAFETY - WINS

SAFETY SAVES MONEY - ACCIDENTS COST MONEY  
REDUCED COSTS - IMPROVED PRODUCTION  
REDUCED ACCIDENTS - IMPROVED SAFETY PERFORMANCE  
REDUCED INCIDENTS - IMPROVED STANDARDS  
WITH IMPROVED STANDARDS - IMPROVED MINE TIDINESS  
STABLE WORKFORCE - IMPROVED WORK ENVIRONMENT  
GIVES QUALITY WORKMANSHIP- QUALITY PRODUCT

ARE WE REALLY READY FOR THIS CHANGE

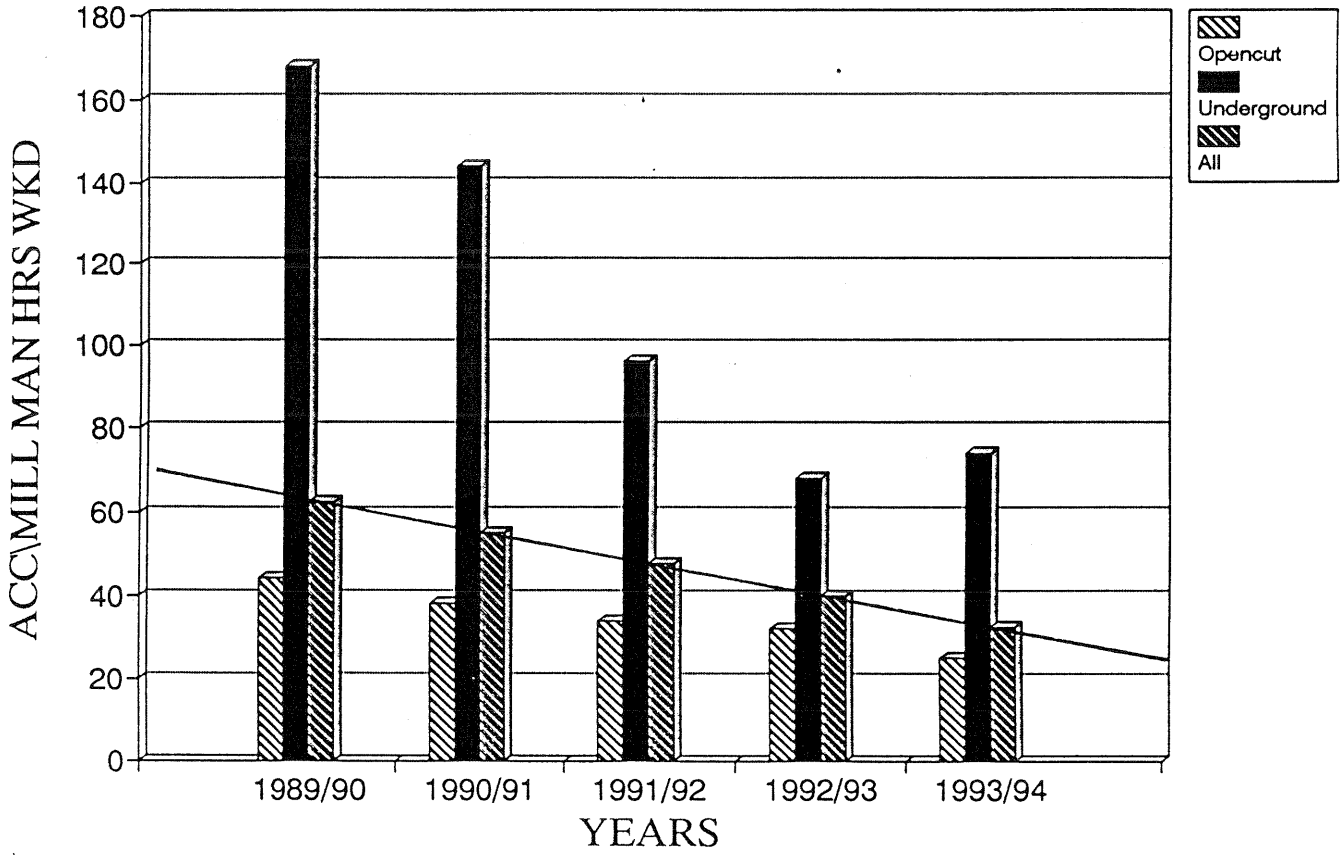
WHAT HAVE WE ACHIEVED TO DATE

*Insert Graphs:*

(a) TONY (LTIFR)

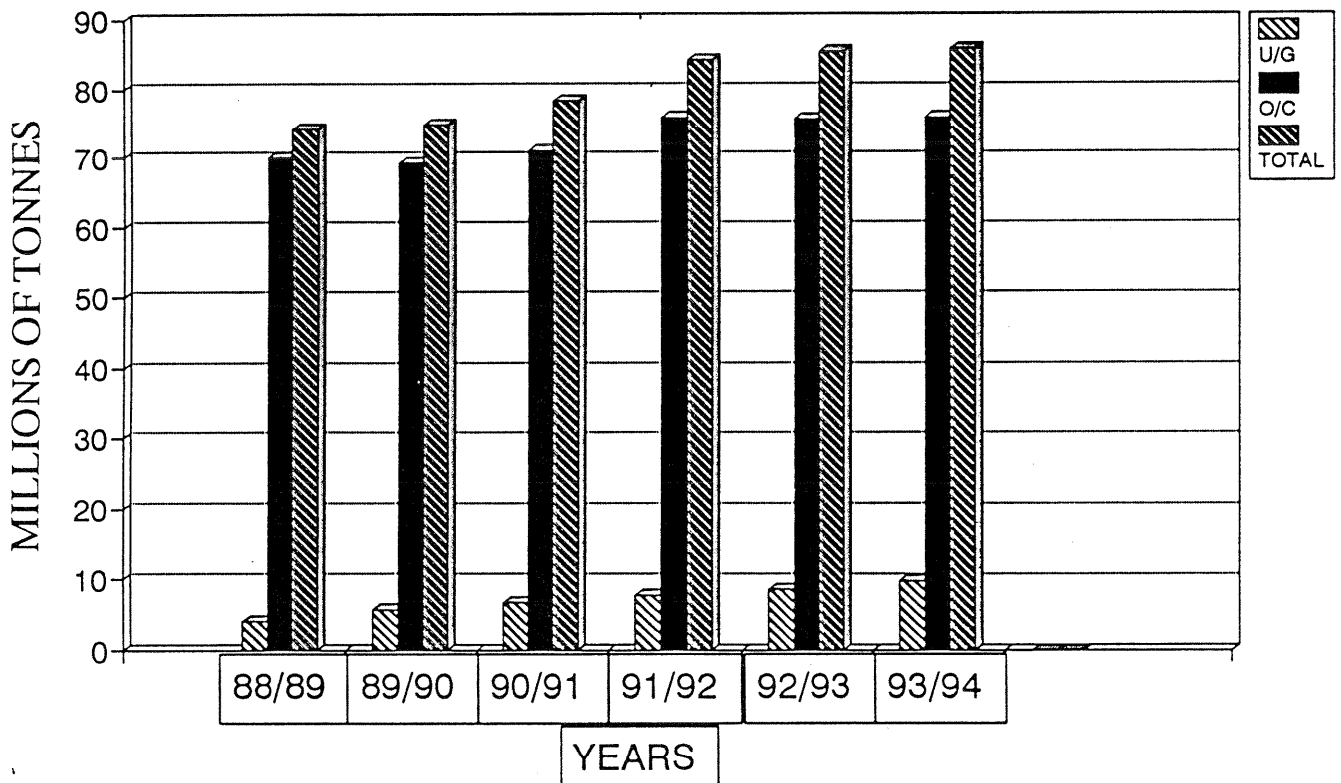
(b) TONY 7 (Saleable Coal Production)

# LTIFR





# SALEABLE COAL QUEENSLAND 1988/1989 TO 1993/1994





Overall, LTI's have fallen from 63 to 33. We have halved our lost time injuries over 5 years. At the same time, production has risen by over 11 million tonnes per annum.

A pretty good effort.

To improve we must do better.

Under our present programme, LTIFR should be approximately 25 for the industry in 1994/95 overall.

Our aim in mines today must be ZERO LTI'S

Because safety is No 1 at some mines, this target is now almost in their grasp.

To others, it is still a million miles away.

If we fail it means that we are not ready and that our effort to succeed was not genuine.

SAFETY will be THE MEASURE of our SUCCESS in the 1990's and beyond.

Let us analyse last years incidents

*Insert Graphs:*

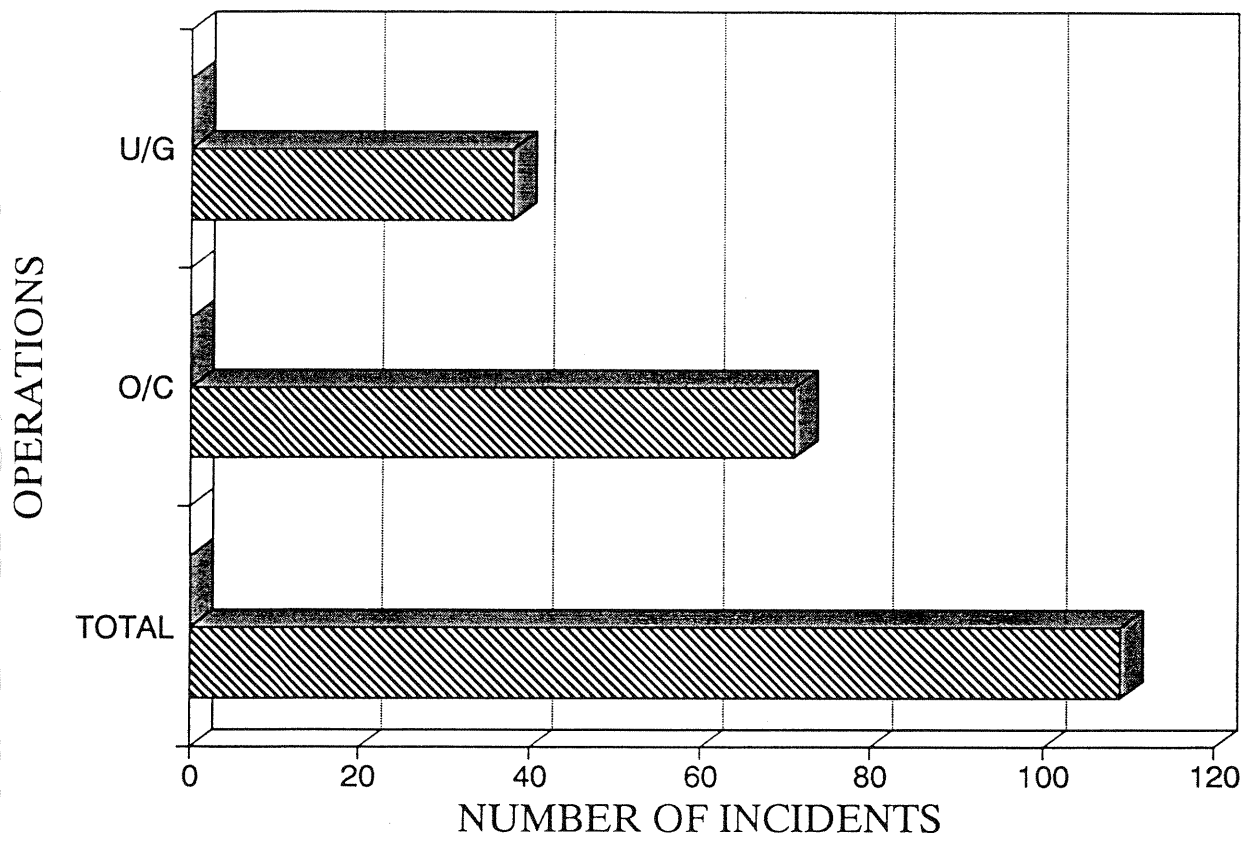
(a) TONY 4 - *Old Significant Incidents*  
*Comparison of O/C and U/G*

(b) TONY 9 - *Breakdown of Significant Incidents*



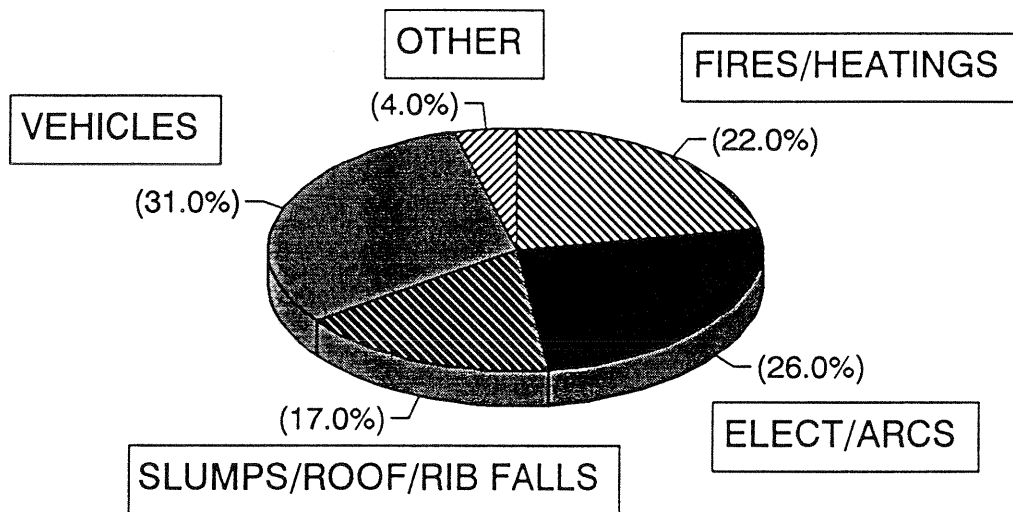


# SIGNIFICANT INCIDENTS 1993/1994





# SIGNIFICANT INCIDENTS 1993/94





## SIGNIFICANT INCIDENTS

TOTAL REPORTED EXCLUDING MISFIRES - 109:

Opencut 71          Underground 38

Fatalities                                  2 Opencut          Nil Underground

Fires/Heatings                              19 Opencut          5 Underground

Arcs/Electrical                              15 Opencut          13 Underground

Slumping/roof/rib Falls

Burial                                          6 Opencut          12 Underground

Vehicle Accidents (All)                      30 Opencut          4 Underground

### OPENCUT ONLY

HEAVY VEHICLE/LIGHT VEHICLE          26                          4

### OPENCUT VEHICLES ONLY

Wet Condition/Speed                          4                                  5

### SOME CONCERNING ASPECTS FROM THESE INCIDENTS ARE AS FOLLOWS

1      Opencut incidents are double underground operations.

2      Two fatalities in Opencut operations this year.

         Last year, 1 fatality in opencut.      Underground operations Nil.

3.      Fires or heatings.      A ratio of 4 in the opencut to 1 underground fire or heating - 22%.

4.      Electrical/Arcs - (VERY HIGH BOTH AREAS) - 26%.

5 Vehicle Incidents/Accidents - 31% overall.

Opencut 42 % of all accidents. Almost 1 in every 2 incidents and what about the near misses and the ones we do not hear about.

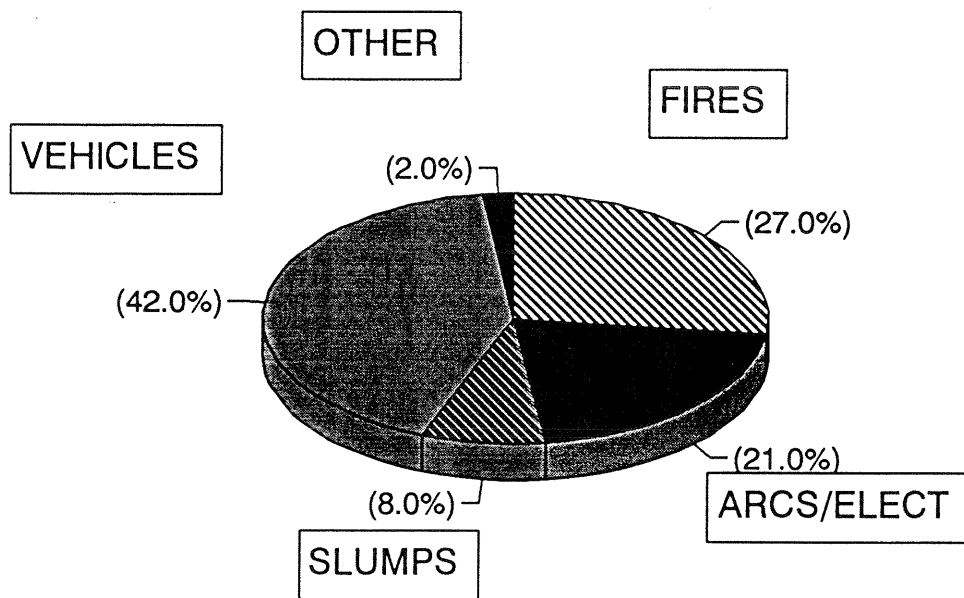
Underground 11% of all accidents.

SOME POINTS FOR US ALL TO PONDER

OPENCUT KEY AREAS TO ADDRESS - SAFETY SYSTEMS AND MANAGEMENT

*Insert Graph - TONY 5*

# SIGNIFICANT INCIDENTS 1993/1994 OPENCUT







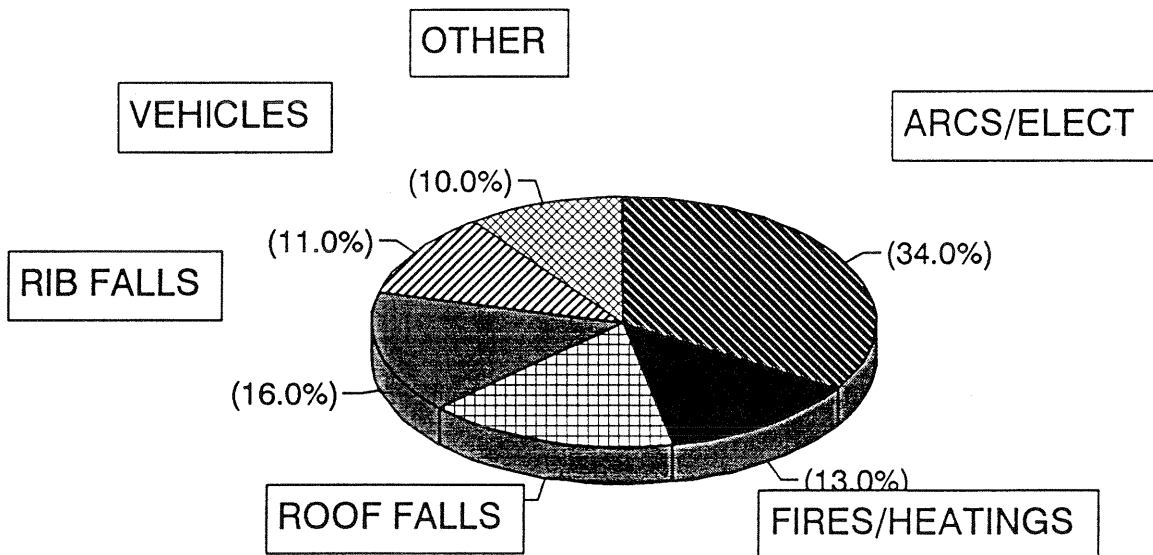
1. Vehicles - Heavy vehicles account for 36% of all incidents.
2. Fires - 27% of all incidents.
3. Electrical 21% of all incidents.

The above areas constitute 84% of all incidents

UNDERGROUND KEY AREAS

*Insert Graph - TONY 6*

# SIGNIFICANT INCIDENTS 1993/1994 UNDERGROUND



- 1 Electrical - 34%
- 2 Rib Falls - 16%
- 3 Roof Falls - 16%
- 4 Vehicles - 11%

The above areas are 77% of all incidents

Let us look at a couple of these incidents

- 1. The Moura accident where two people were killed and another two lucky to escape with their lives.

This accident involved personnel servicing a loader in the pit with a water truck parked nearby. At a point in time, the water truck rolled into the service truck pushing it onto the loader with the above result.

What safety BARRIERS or mechanisms do we have to try and prevent such an incident.

- |                |                                                             |                                                                |       |      |
|----------------|-------------------------------------------------------------|----------------------------------------------------------------|-------|------|
| HARD BARRIER 1 | Procedure for servicing equipment                           | Did we have one?                                               | Yes * | No   |
|                | (These were generally complied with).                       |                                                                |       |      |
| HARD BARRIER 2 | Proper parking procedure                                    | (Yes, there were procedures but these were not complied with). | Yes   | No * |
| HARD BARRIER 3 | Safety interlocks to indicate vehicles are properly parked. | (Not normally in use and not in use in this case).             | Yes   | No * |

SOFT BARRIER 4	Parking Procedures for operators are marked in the drivers cab.	Yes	No *
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(Normally available but apparently not complied with)

We should have at least two fixed rigid barriers and at least one flexible barrier to prevent an accident or incident. As can be seen, we only had one barrier in operation and this was not enough to prevent this unfortunate event.

2 An accident where a large opencut vehicle and a light vehicle collided in the pit.

#### WHAT BARRIERS DID WE HAVE?

HARD BARRIER 1	Mine Traffic Rules	Yes	No *
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(These were not applicable in the pit).

HARD BARRIER 2	COMMUNICATION	Yes	No *
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(Not working at the time, the pits often had dead spots so were not always used).

HARD BARRIER 3	Indication of Activities	Yes	No *
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(In this case they were functioning but due to grime were not visible - a common problem in many mines).

SOFT BARRIER 4	Safe driving procedures	Yes	No *
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(The light vehicle operator used poor judgement on this occasion).

A recipe for disaster, the gun is loaded

As can be seen, no barriers were in place.

BANG - YOUR DEAD!

No you where lucky this time.

You get a Second chance

RULE:        "2 FIXED OR HARD BARRIERS AND 1 SOFT BARRIER MUST BE OUR MINIMUM SAFETY STANDARD"

I genuinely believe that safety, good housekeeping, proper training and clear simple systems or rules will give you a safe, motivated, productive mine, it will come as night follows day.

I WOULD LIKE TO DISCUSS WHERE TO FROM NOW

From the statistics presented it is easy to see the top 3 or 4 areas of concern in our industry account for 80% of the problems.

How will you manage this problem with DUTY OF CARE and SAFE WORK PROCEDURES.

To see how this will work we do not have to look very far.

You are responsible for your safety. It is your Duty of Care to yourself and others

I ask YOU - (How do you handle Duty of Care - Do you naturally have your own Safe Work Procedures)

Do you break the law by speeding on the road.

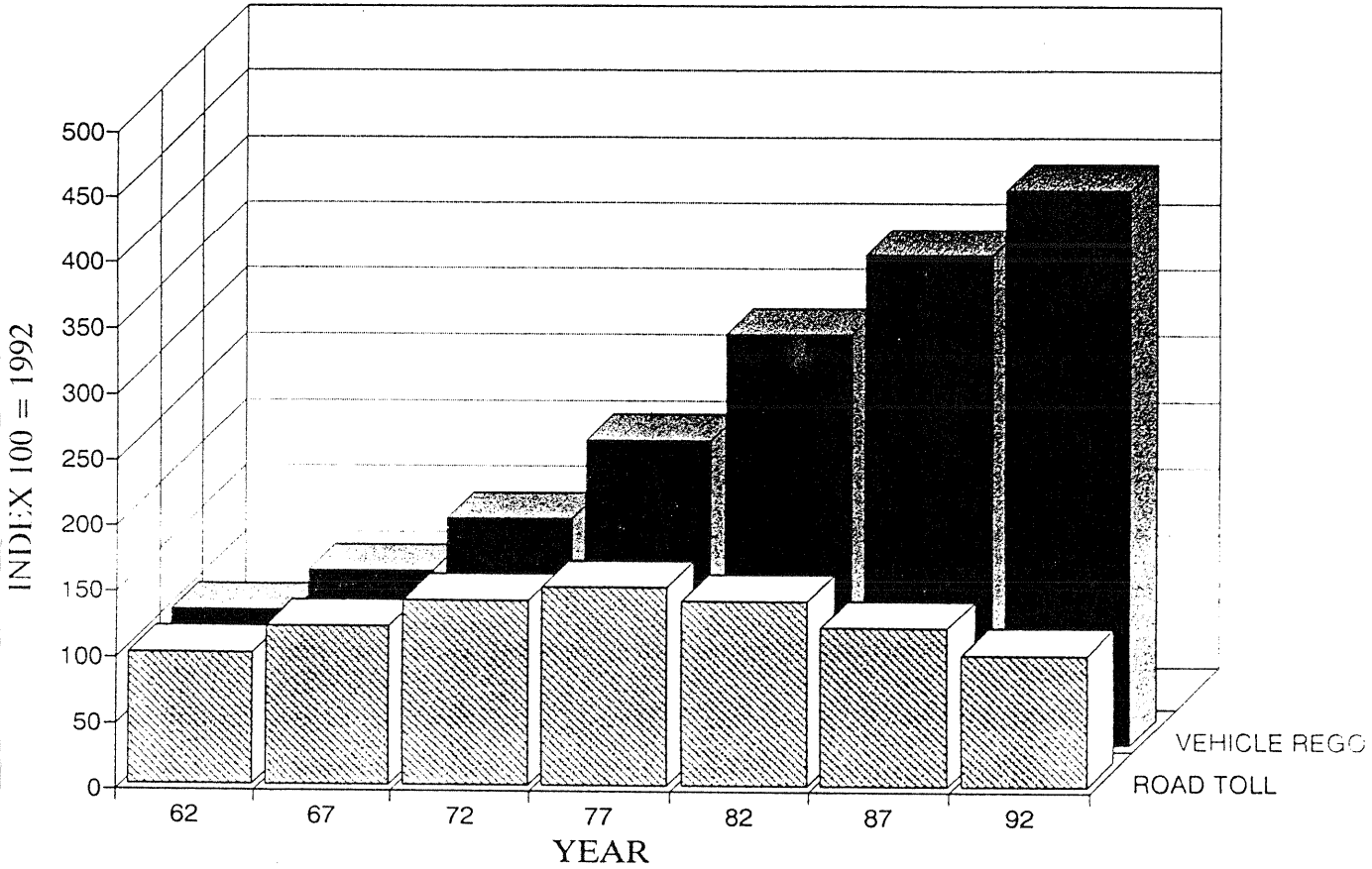
Have the odd drink and sneak home the back way.

Do you put on all your safety gear when you mow your lawn.

Or are you dressed in stubbies and thongs.

If you don't or haven't done these things, stand up, hold your head high and leave because you are one of the chosen ones.

# QLD ROAD TOLL / VEHICLE REGO 1962 TO 1992



Let us look at Motor Transport and the Traffic Act on Queensland roads for a moment.

*Insert Graph - TONY 3*

Over the last 30 years Queensland has had a stable accident rate with a four fold increase in vehicle registrations, or if looked at another way, fatalities would be  $\frac{1}{4}$  of the level they were in 1962 with constant registration.

The legislation for roads is very prescriptive and laid down in clear, expensive English (Fines).

We all know what is right and wrong but we break the Rules - WHY

Let us look at mining over the last five years in Queensland.

*Insert Graph - TONY LTIFR*

As can be seen, we have had a 50% reduction or halved our lost time accident rate whilst production continues to increase up 11 million tonnes. Also underground production has escalated from 4 million tonnes per annum to 10 million tonnes per annum.

An excellent result.

Again a period of Prescriptive Legislation with clear cut rules that the industry knows and understands.

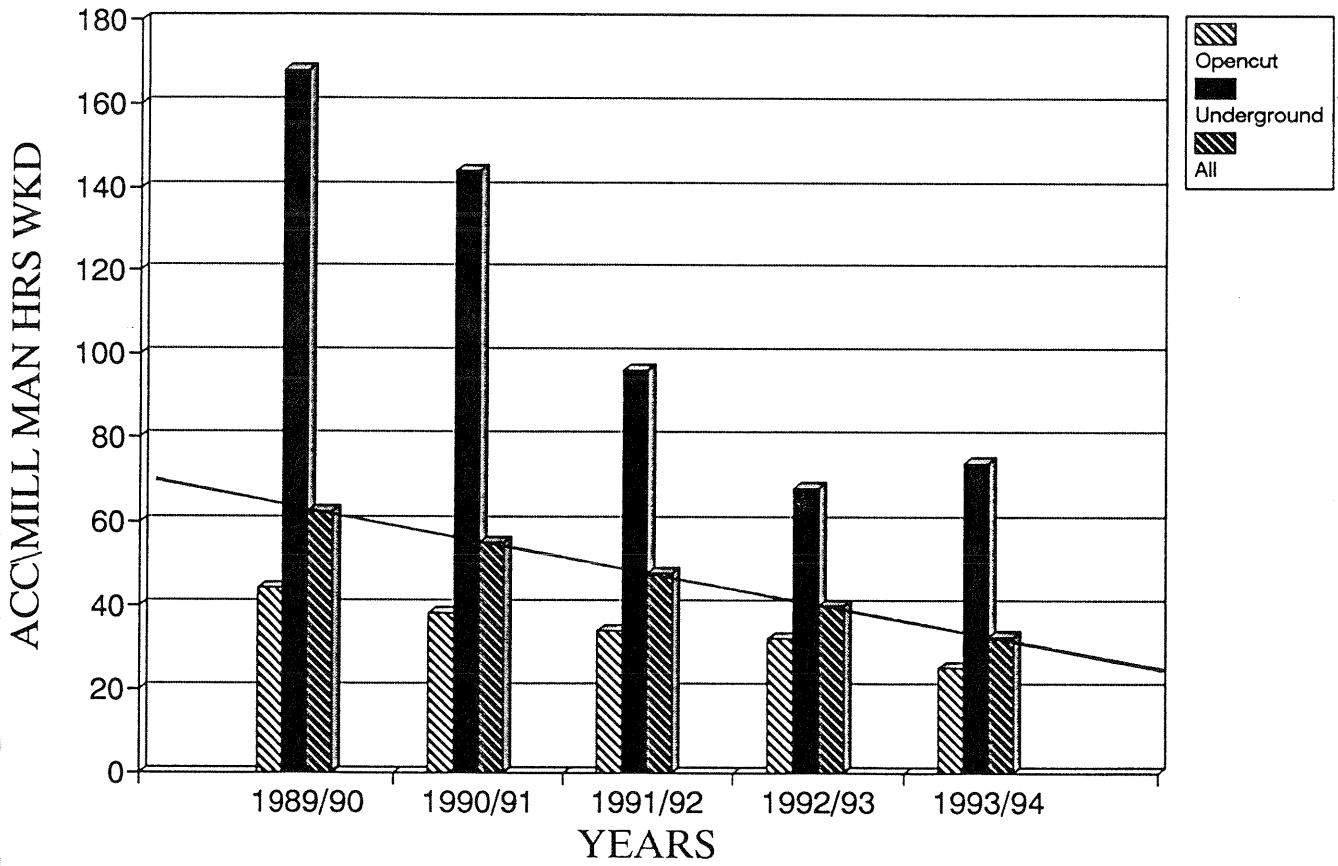
It has served us well.

**WHERE TO NOW**

Under new legislation, YOU AND YOUR MINE will be responsible for putting in place SAFE PROCEDURES

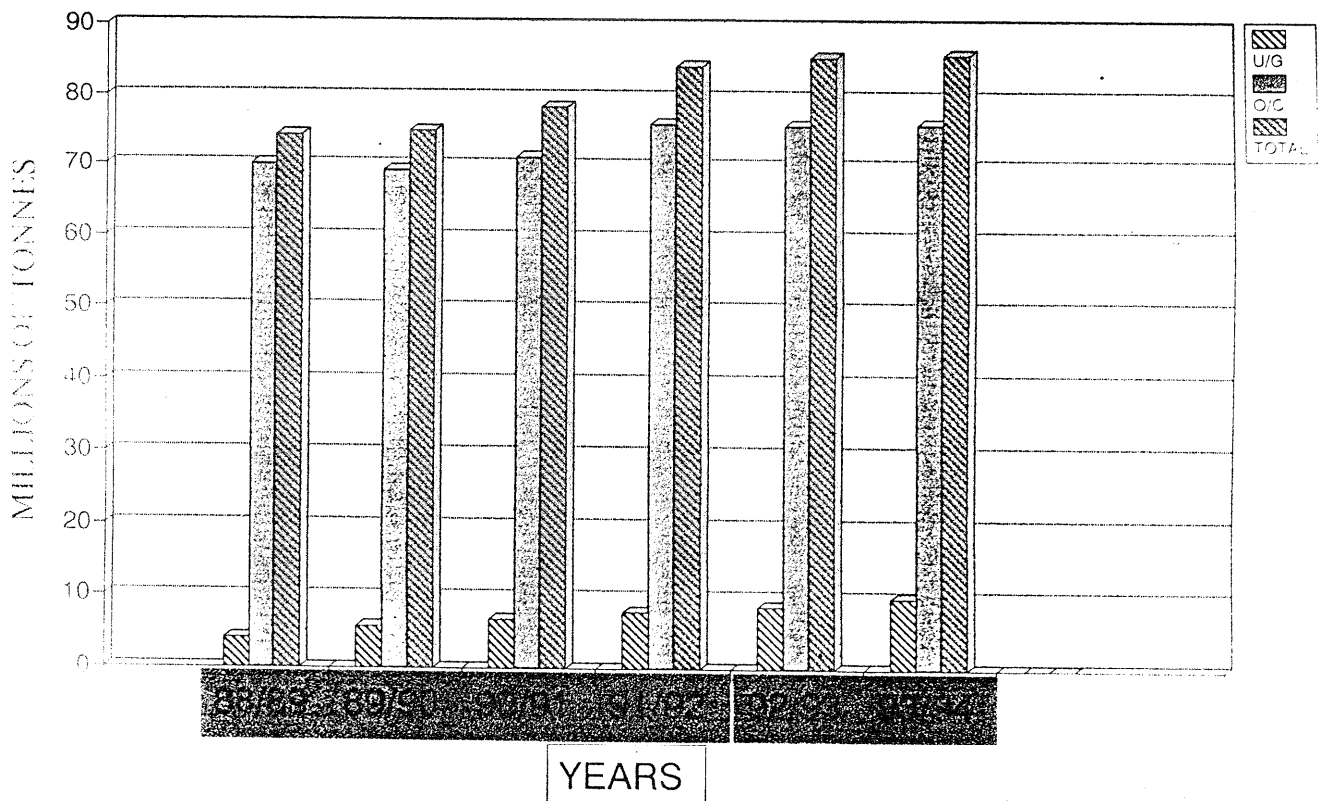
YOU AND YOUR MINE must instil DUTY OF CARE into YOUR PEOPLE

# LTIFR





# SALEABLE COAL QUEENSLAND 1988/1989 TO 1993/1994



SAFETY MUST BE 1, 2 and 3

SAFETY MUST BE "A STATE OF MINE"

SAFETY MUST BE A "STATE OF MIND"

If this is the WAY to achieve

A. Zero LTI

or

B. Zero significant incidents

I AM ALL FOR IT - ARE YOU?

ARE YOU READY AND WILLING

IS YOUR MINE READY

ARE YOUR PEOPLE READY

The GUN is LOADED and it is in YOUR COURT to MAKE IT A WINNER or SHOOT YOURSELF IN THE FOOT and go back the way we where, the way Road Safety operates.

The COSTS ARE HIGH and the RISKS MANY

DON'T BREAK THE SAFETY BARRIER

MAKE YOUR DECISION WELL - WE MUST ALL BE READY AND WILLING

MAKE THIS LOTTERY A WINNER AND OUR INDUSTRY A WINNER

Remember the Golden Rule

All procedures should have at least two Fixed or Hard Barriers and one Soft Barrier to maintain minimum Safety Standards